

January 11, 2016

Report to:

Mark Steen

Colorado Milling Company , LLC

PO Box 1523

Longmont, CO 80502

cc: Gordon E. Sweeney

Bill to:

Mark Steen

Colorado Milling Company , LLC

PO Box 1523

Longmont, CO 80502

Project ID:

ACZ Project ID: L28383

Mark Steen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 04, 2016. This project has been assigned to ACZ's project number, L28383. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L28383. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 10, 2016. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Sue Webber has reviewed and
approved this report.



Colorado Milling Company, LLC

Project ID:

Sample ID: 0151229-W1

ACZ Sample ID: **L28383-01**

Date Sampled: 12/29/15 11:00

Date Received: 01/04/16

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	01/07/16 11:02	aeb
Zinc, dissolved	M200.7 ICP	1	0.04	B		mg/L	0.01	0.05	01/07/16 11:02	aeb

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							01/06/16 11:18	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							01/05/16 15:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	522	H	*	mg/L	10	20	01/06/16 9:56	emk
Sulfate	D516-02/-07 - Turbidimetric	10	261			mg/L	10	50	01/06/16 16:45	krh

Colorado Milling Company, LLC

Project ID:

Sample ID: 0151229-W2

ACZ Sample ID: **L28383-02**

Date Sampled: 12/29/15 11:25

Date Received: 01/04/16

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	01/07/16 11:12	aeb
Zinc, dissolved	M200.7 ICP	1	0.24			mg/L	0.01	0.05	01/07/16 11:12	aeb

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							01/08/16 10:42	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							01/05/16 15:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	848			mg/L	10	20	01/05/16 16:15	emk
Sulfate	D516-02/-07 - Turbidimetric	10	383			mg/L	10	50	01/06/16 16:45	krh

Colorado Milling Company, LLC

Project ID:

Sample ID: 0151229-W3

ACZ Sample ID: **L28383-03**

Date Sampled: 12/29/15 11:55

Date Received: 01/04/16

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	01/07/16 11:15	aeb
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	01/07/16 11:15	aeb

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							01/08/16 10:49	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							01/05/16 15:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	432			mg/L	10	20	01/05/16 16:17	emk
Sulfate	D516-02/-07 - Turbidimetric	5	183			mg/L	5	25	01/06/16 16:31	krh

Colorado Milling Company, LLC

Project ID:

Sample ID: 0151229-W4

ACZ Sample ID: **L28383-04**

Date Sampled: 12/29/15 12:20

Date Received: 01/04/16

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Manganese, dissolved	M200.7 ICP	1		U		mg/L	0.005	0.03	01/07/16 11:18	aeb
Zinc, dissolved	M200.7 ICP	1		U		mg/L	0.01	0.05	01/07/16 11:18	aeb

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um filter)	SOPWC050	1							01/08/16 10:57	emk
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A	1							01/05/16 15:00	gss
Residue, Filterable (TDS) @180C	SM2540C	1	438			mg/L	10	20	01/05/16 16:20	emk
Sulfate	D516-02/-07 - Turbidimetric	5	108			mg/L	5	25	01/06/16 16:31	krh


Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<http://www.acz.com/public/extquallist.pdf>

Colorado Milling Company, LLC

ACZ Project ID: **L28383**

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG396770													
WG396770ICV	ICV	01/07/16 10:31	II160105-3	2		1.938	mg/L	97	95	105			
WG396770ICB	ICB	01/07/16 10:37				U	mg/L		-0.015	0.015			
WG396770LFB	LFB	01/07/16 10:49	II151221-2	.499		.4856	mg/L	97	85	115			
L28383-01AS	AS	01/07/16 11:05	II151221-2	.499	U	.4883	mg/L	98	85	115			
L28383-01ASD	ASD	01/07/16 11:08	II151221-2	.499	U	.4898	mg/L	98	85	115	0	20	

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG396691													
WG396691PBW	PBW	01/05/16 16:03				U	mg/L		-20	20			
WG396691LCSW	LCSW	01/05/16 16:04	PCN49653	260		264	mg/L	102	80	120			
L28384-02DUP	DUP	01/05/16 16:27			824	828	mg/L				0	10	
WG396704													
WG396704PBW	PBW	01/06/16 9:30				U	mg/L		-20	20			
WG396704LCSW	LCSW	01/06/16 9:31	PCN49653	260		266	mg/L	102	80	120			
L28380-02DUP	DUP	01/06/16 9:53			33900	34300	mg/L				1	10	

Sulfate

D516-02/-07 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG396733													
WG396733ICB	ICB	01/06/16 11:14				U	mg/L		-3	3			
WG396733ICV	ICV	01/06/16 11:14	WI151230-1	20		19.7	mg/L	99	90	110			
WG396733LFB1	LFB	01/06/16 16:29	WI150904-1	10.01		9.5	mg/L	95	90	110			
L28379-01DUP	DUP	01/06/16 16:29			16.4	16.1	mg/L				2	20	
L28379-02AS	AS	01/06/16 16:29	WI150904-1	10.01	U	11	mg/L	110	90	110			
WG396733LFB2	LFB	01/06/16 17:22	WI150904-1	10.01		9.6	mg/L	96	90	110			

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG396770													
WG396770ICV	ICV	01/07/16 10:31	II160105-3	2		1.905	mg/L	95	95	105			
WG396770ICB	ICB	01/07/16 10:37				U	mg/L		-0.03	0.03			
WG396770LFB	LFB	01/07/16 10:49	II151221-2	.4995		.486	mg/L	97	85	115			
L28383-01AS	AS	01/07/16 11:05	II151221-2	.4995	.04	.526	mg/L	97	85	115			
L28383-01ASD	ASD	01/07/16 11:08	II151221-2	.4995	.04	.52	mg/L	96	85	115	1	20	

Colorado Milling Company, LLC

ACZ Project ID: **L28383**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L28383-01	WG396704	Residue, Filterable (TDS) @180C	SM2540C	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).

Colorado Milling Company, LLC

ACZ Project ID: **L28383**

No certification qualifiers associated with this analysis

Colorado Milling Company, LLC

ACZ Project ID: L28383

Date Received: 01/04/2016 10:15

Received By: ddp

Date Printed: 1/4/2016

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A change was made in the Report To Address, Sample Hold Time, Compliance Monitoring, Relinquished By, Right upper Margin section prior to ACZ custody.			

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
4348	0.5	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Colorado Milling Company, LLC

ACZ Project ID: L28383

Date Received: 01/04/2016 10:15

Received By: ddp

Date Printed: 1/4/2016

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

