



STATE OF
COLORADO

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

Additional Information Required, 2Q2024, Cash & Who Do Mines and Gold Hill Mill

Ben Langenfeld <benl@lewicki.biz>

Tue, Oct 8, 2024 at 8:07 AM

To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>, Mark Steen <goldtontine@gmail.com>

Patrick

Attached is the corrected 2Q2024 sampling report.

-Ben Langenfeld
Lewicki and Associates
benl@lewicki.biz
[3375 W Powers Circle](#)
Littleton, CO 80123
(720) 842-5321, ex. 1
(303) 960-5613

From: Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

Sent: Wednesday, October 2, 2024 1:00 PM

To: Ben Langenfeld <benl@lewicki.biz>; Mark Steen <goldtontine@gmail.com>

Subject: Additional Information Required, 2Q2024, Cash & Who Do Mines and Gold Hill Mill

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Q2 2024 Water Sampling Report.pdf

1612K

September 18, 2024

Colorado Division of Reclamation, Mining, and Safety
1313 Sherman St, Rm 215
Denver, CO 80203

Delivered Via Email

Gold Hill Mill, Permit No. M-1994-117
Cash Mine, Permit No. M-1983-141

To Whom It May Concern

The second quarter, 2024 ("Q2/24") water sampling was conducted by Lewis Perkins, Colorado Milling Company, on June 20, 2024.

- **Trace Element & Related Data:** Five monitoring stations were sampled for arsenic, cadmium, manganese, zinc, total dissolved solids ("residue") and sulfate. Analyses were performed by Colorado Analytical Laboratories Inc., based in Denver. Copies of their original laboratory analytical reports are included in this submittal.
- **Other Data:** Water depth, temperature and pH data were gathered in the field during sampling and are included in this submittal.

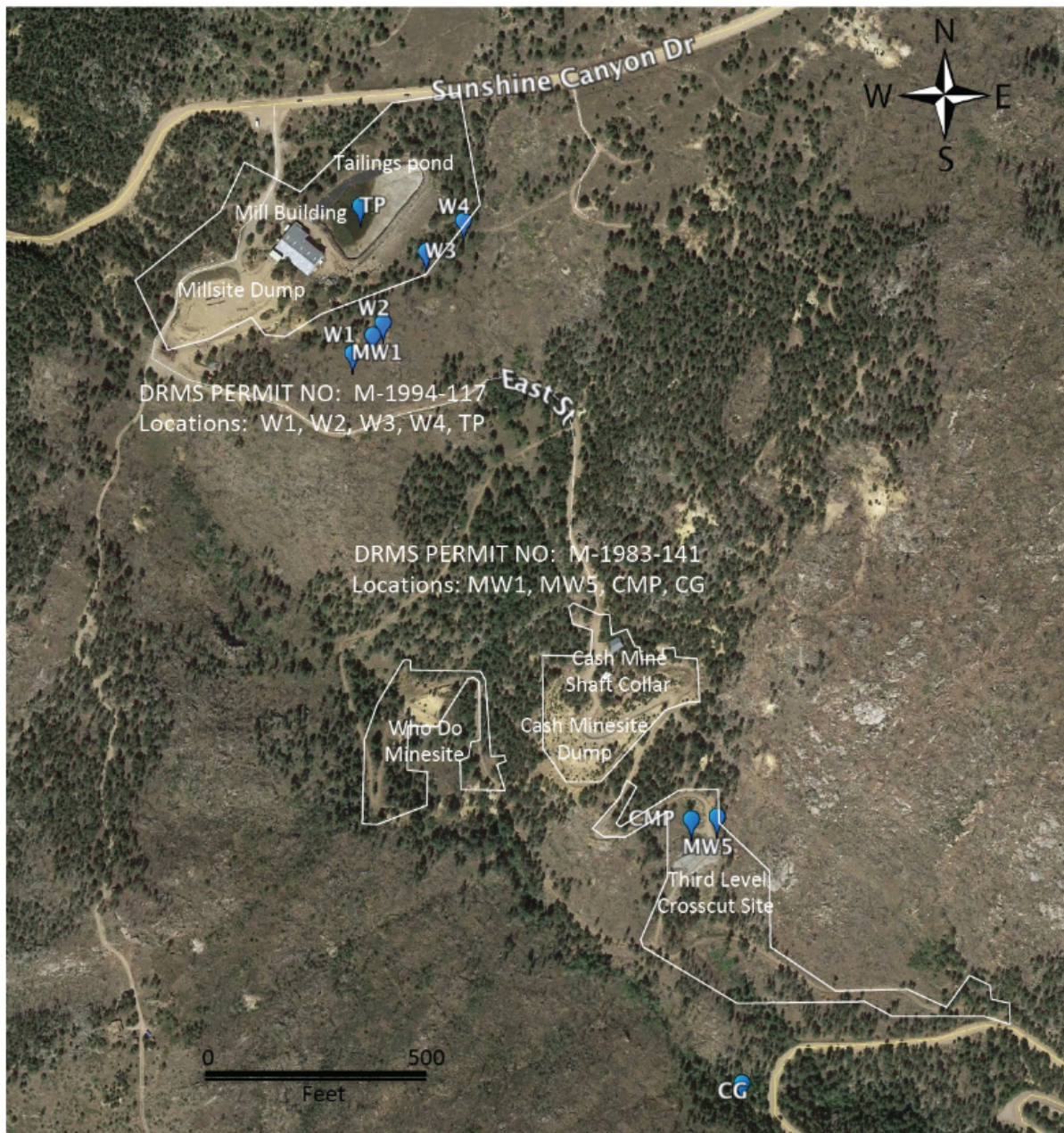
Note that zero values in the graphs represent "non-detect" results.

Please contact me with any questions.

Regards,



Ben Langenfeld, P.E.
Lewicki & Associates, PLLC
(720) 842-5321, ex. 1
benl@lewicki.biz

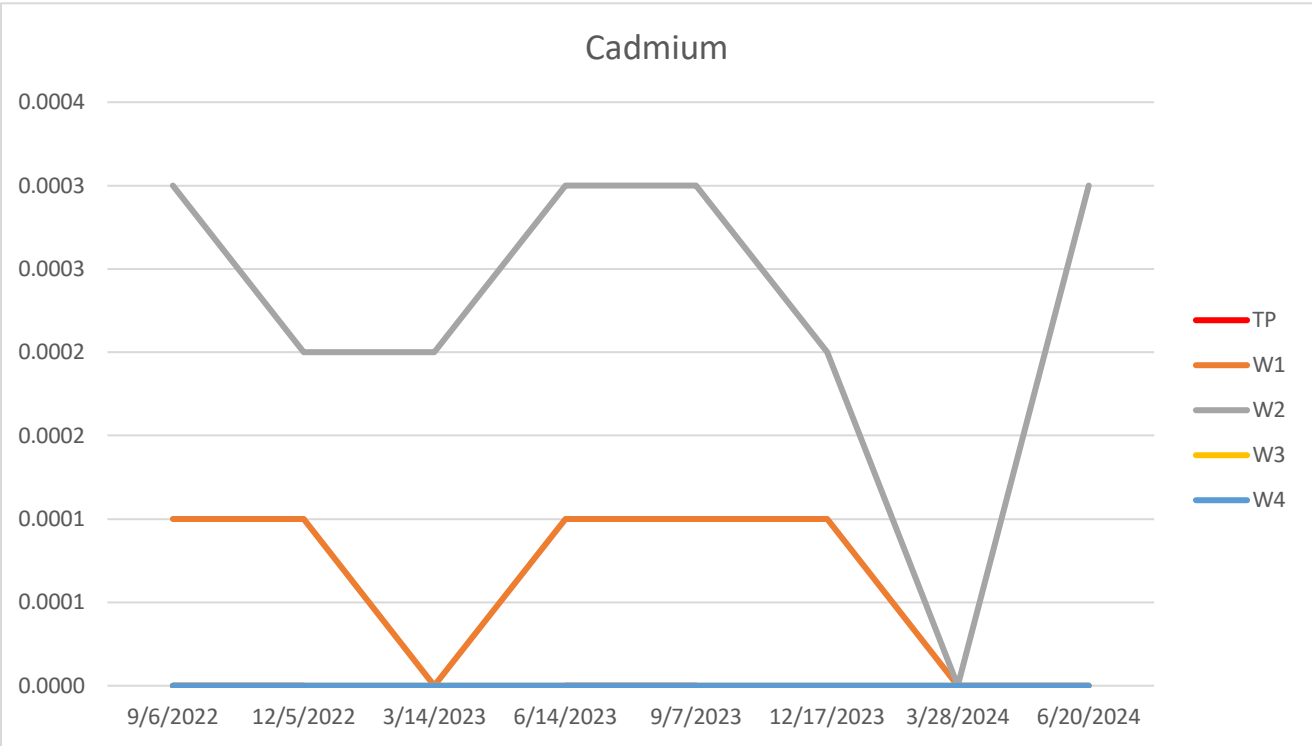
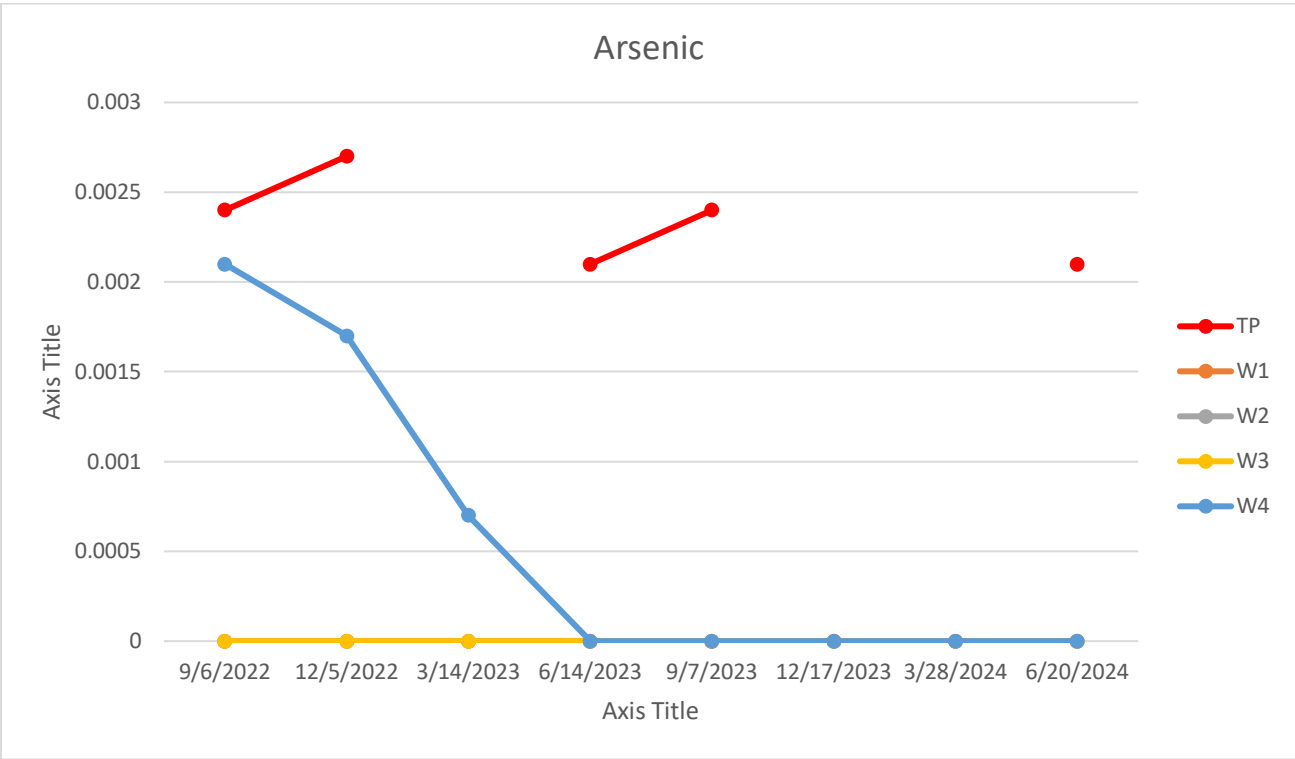


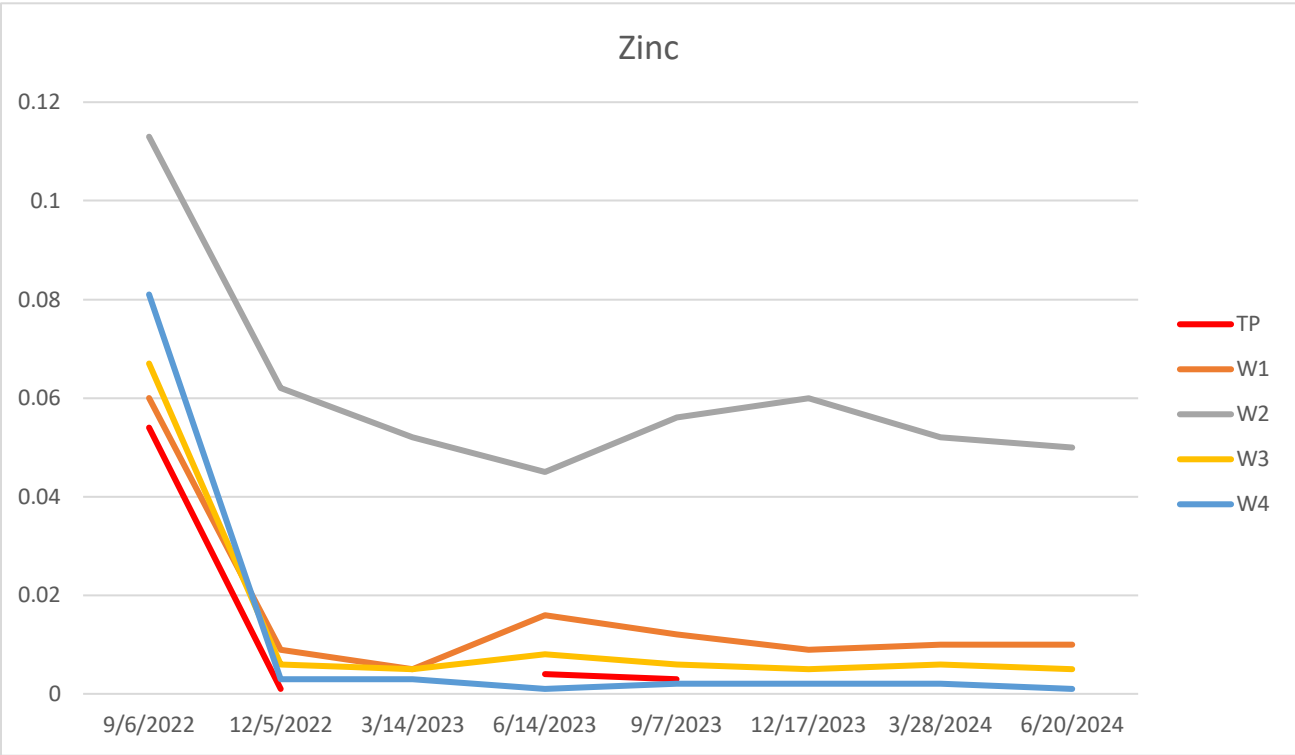
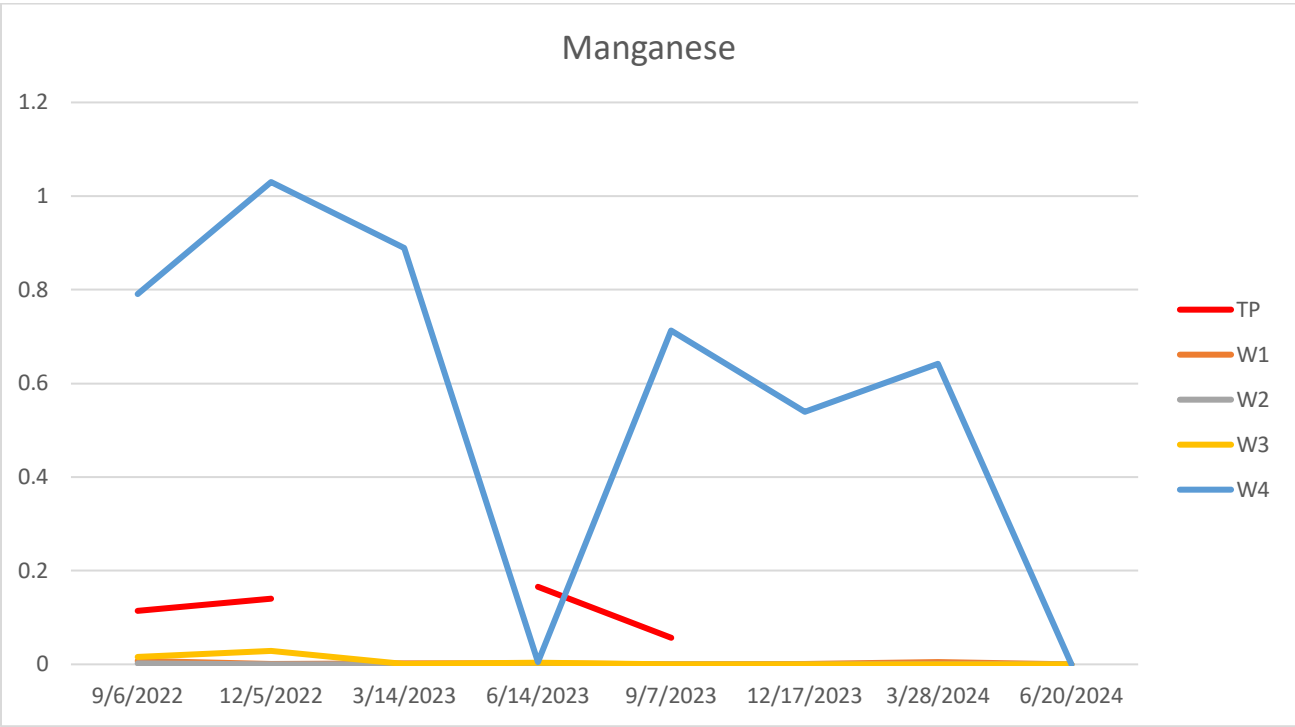
Map showing locations of water monitoring stations for permits M-1994-117 & M-1983-141

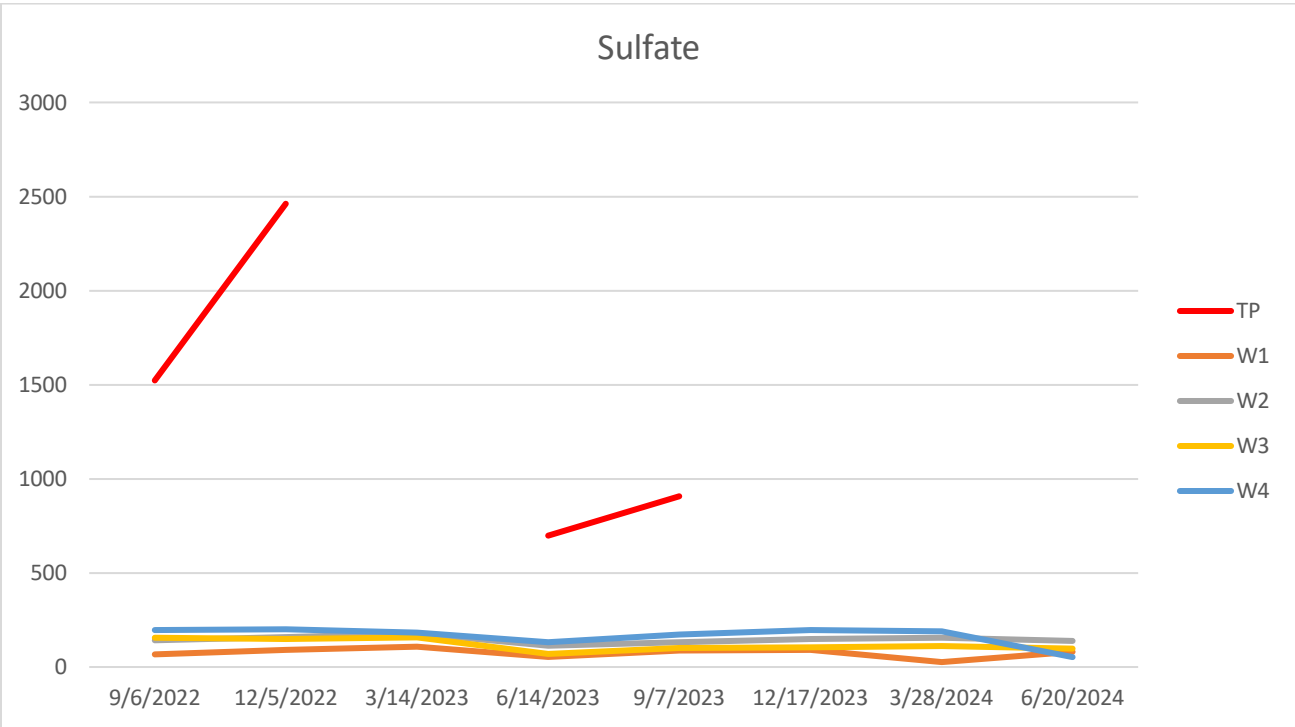
Locations		Well Measurements						Water Analyses (ppm/mg/L)						
Locations ID	Date	Time	Depth	pH	Temp (C)	Conductivity (uS/cm)	Sample ID	Date	As	Cd	Mn	Zn	Residue	Sulfate
Gold Hill Mill M-1994-117														
W-1	06/20/2024	14:05	34.4	7.5	12.5	773	240716120	06/20/2024	0	0	0	0.01	186	80.6
W-2	06/20/2024	14:15	32.4	7.25	10.2	446	240716120	06/20/2024	0	0.0003	0	0.05	268	138
W-3	06/20/2024	14:28	23.7	6.91	13	438	240716120	06/20/2024	0	0	0	0.005	257	98.4
W-4	06/20/2024	14:50	27.4	6.86	12.6	338	240716120	06/20/2024	0	0	0	0.001	203	52.7
TP	06/20/2024	16:25		7.68	20.6	1614	240716120	06/20/2024	0.0021	0	0	0	1396	782
Cash Mine M-1983-141														
MW-1	06/20/2024	13:50	54.8	7.34	14.5	1602	240716120	06/20/2024	0	0.0005	0.1913	0.017	1417	867
MW-5	06/20/2024	15:45	9	7.35	16.5	903	240716120	06/20/2024	0.001	0	0.0543	0.002	684	327
CG	06/20/2024	15:50		7.85	12	456	240716120	06/20/2024	0	0.0003	0.0112	0.179	308	162
CMP	06/20/2024	15:45		8.02	18.9	90	240716120	06/20/2024	0.0009	0.0027	0.0009	0.737	1195	734

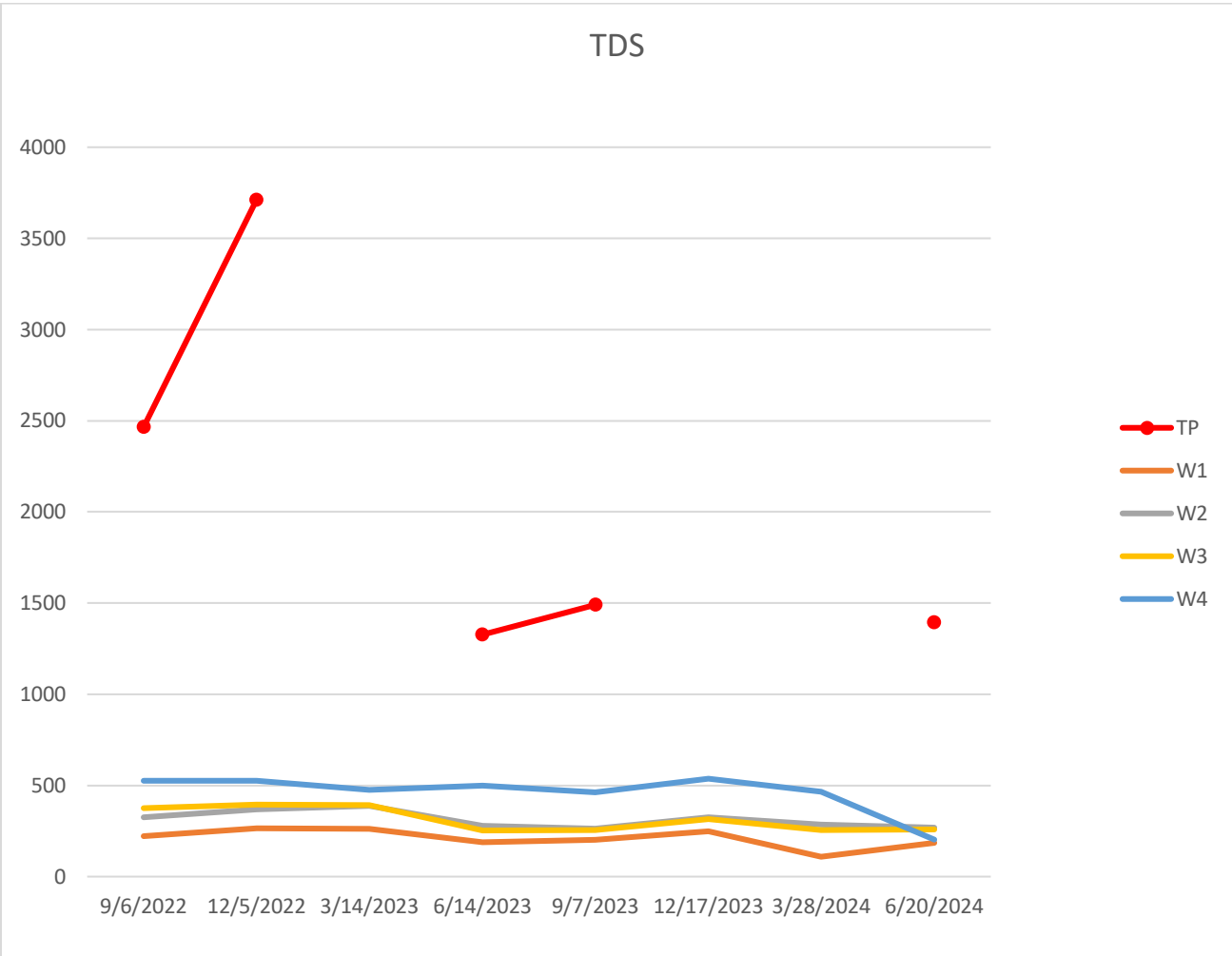
Analytes from lab analysis are dissolved.

Gold Hill Mill Analyte Graphs for the Past Five Quarters

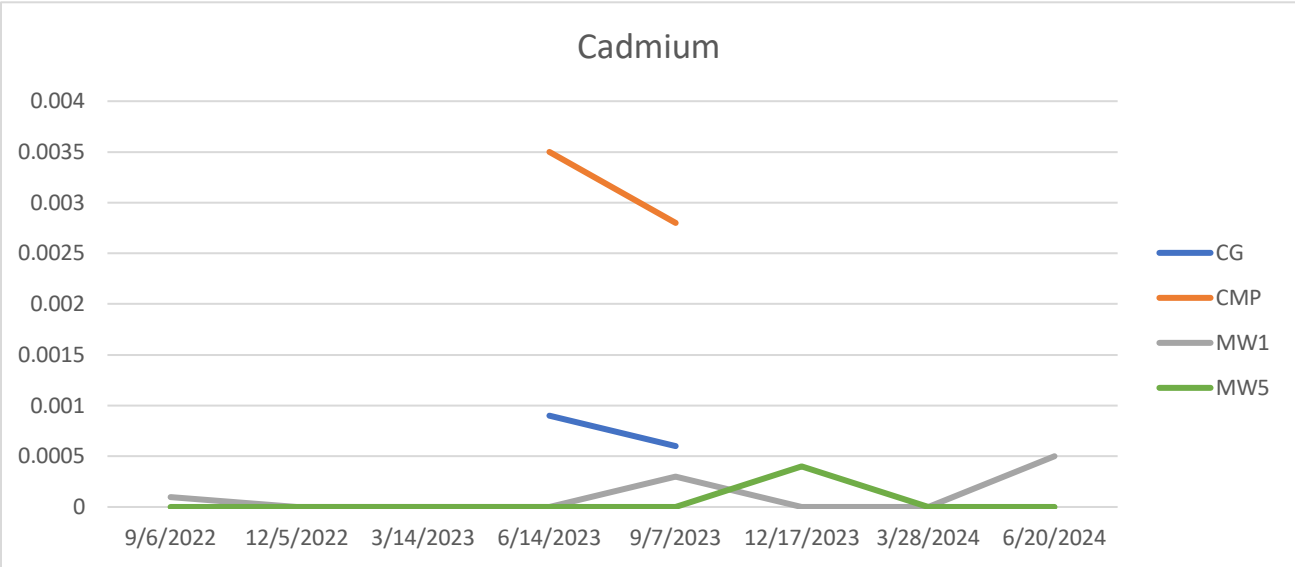
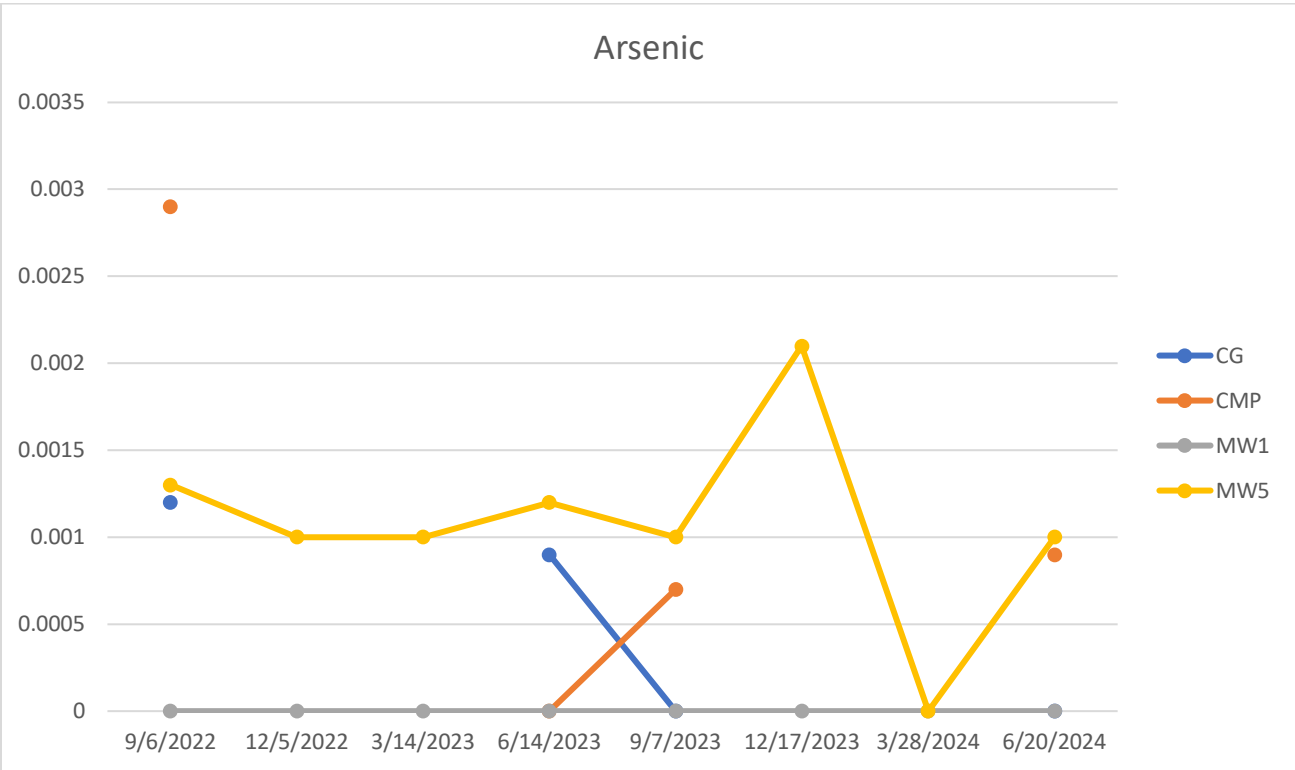


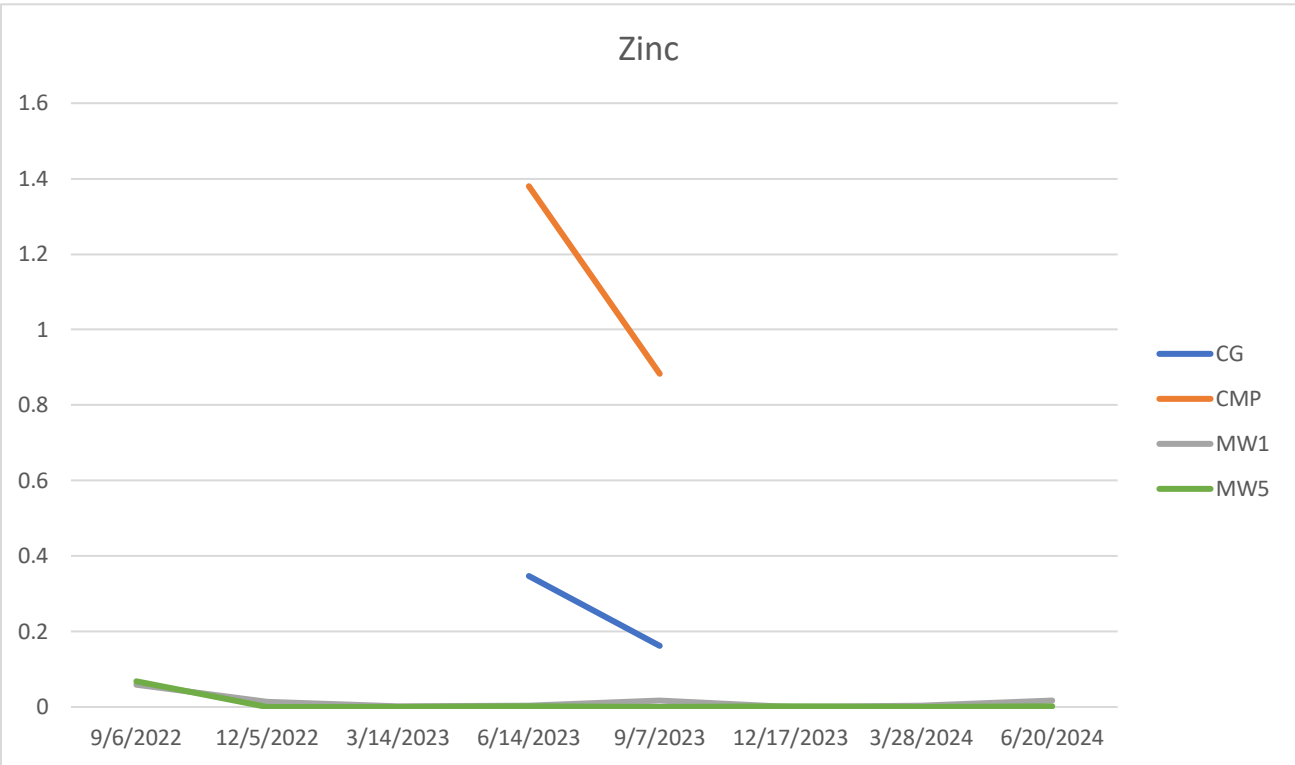
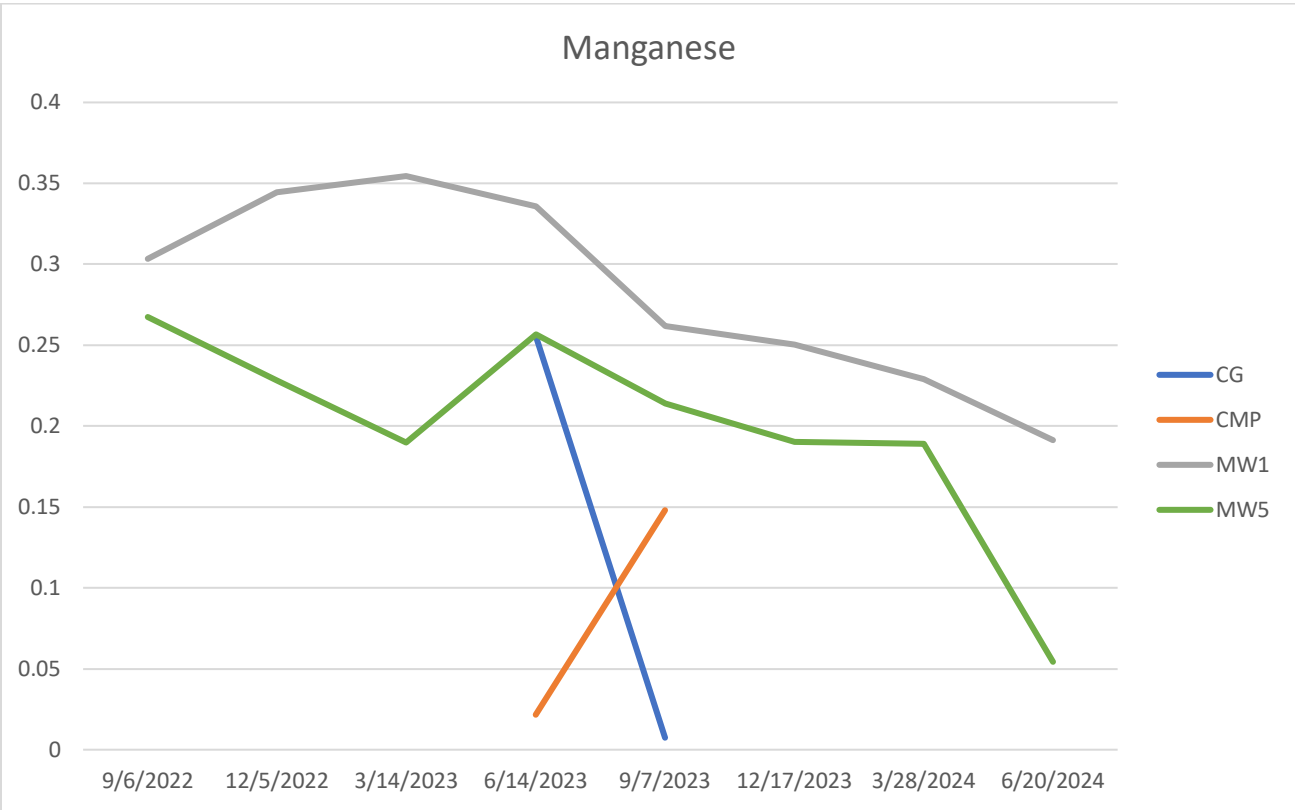


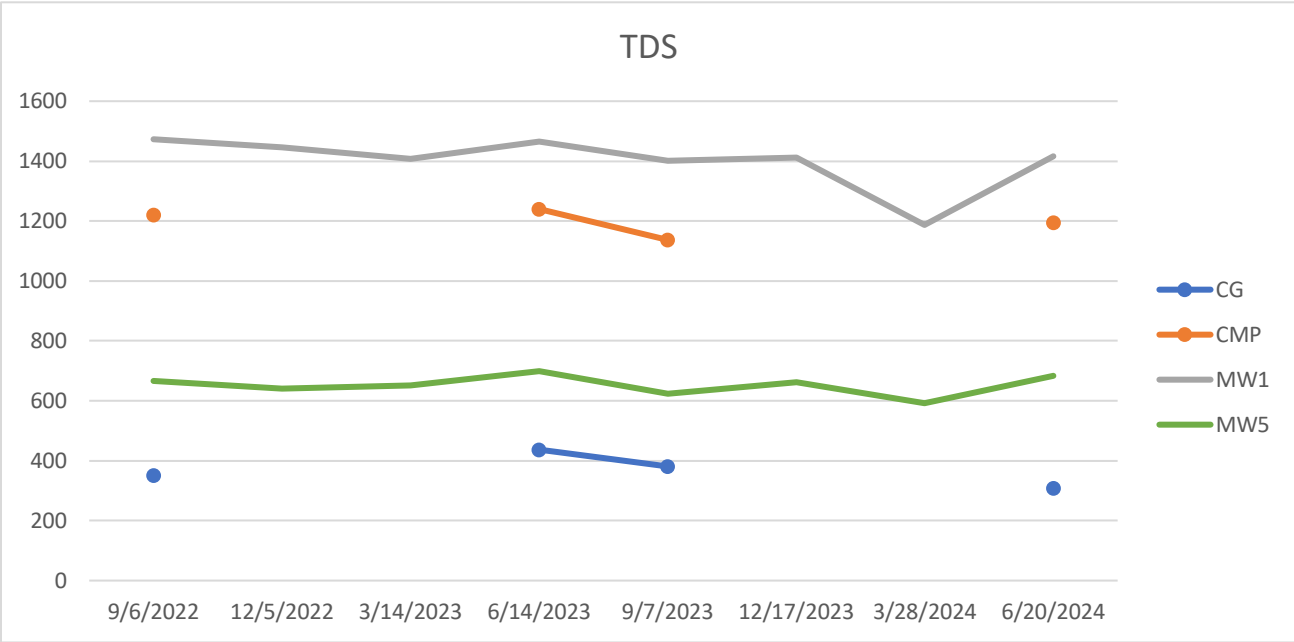
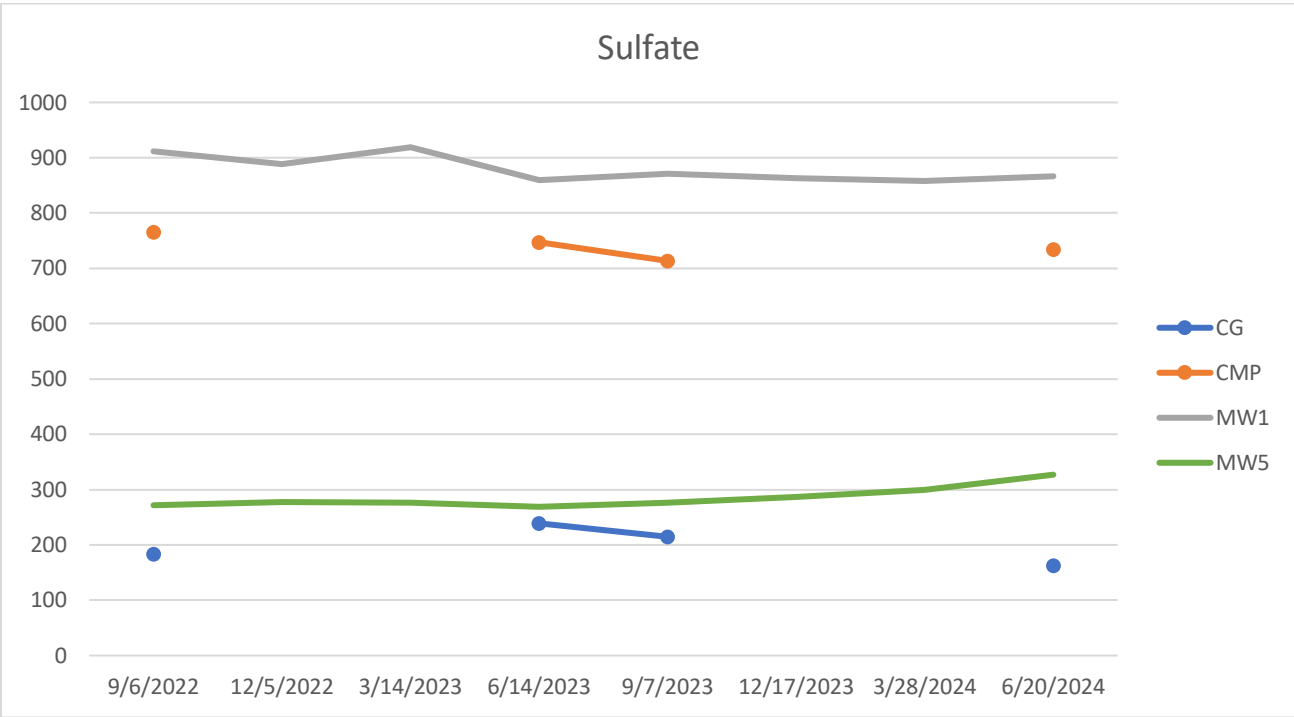




Cash Mine Analyte Graphs for the Past Five Quarters







Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID Left Hand Creek Composite
Sample Date/Time: 7/15/24 5:05 PM
Lab Number: 240716120-01

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Total Alkalinity	14.1 mg/L as CaCO ₃	SM 2320-B	4.0	1	7/17/24	QC74826	KJP
Bicarbonate	14.1 mg/L as CaCO ₃	SM 2320-B	0.2	0.2	7/17/24	-	KJP
Carbonate	ND mg/L as CaCO ₃	SM 2320-B	0.2	0.2	7/17/24	-	KJP
Hydroxide	ND mg/L as CaCO ₃	SM 2320-B	0.2	0.2	7/17/24	-	KJP
Chloride	3.53 mg/L	EPA 300.0	0.10	0.007	7/17/24	QC74803	NRP
Cyanide-Total	ND mg/L	EPA 335.4	0.005	0.0005	7/17/24	QC74809	KRB
Cyanide-Weak Acid Dissociable	ND mg/L	ASTM 2036-09C	0.005	0.0005	7/17/24	QC74810	KRB
Fluoride	ND mg/L	EPA 300.0	0.10	0.024	7/17/24	QC74800	NRP
Nitrate Nitrogen	ND mg/L	EPA 300.0	0.05	0.02	7/17/24	QC74801	NRP
Nitrate/ Nitrite Nitrogen	ND mg/L	Calculation	0.05	0.02	7/18/24	-	AMJ
Nitrite Nitrogen	ND mg/L	EPA 300.0	0.03	0.01	7/17/24	QC74802	NRP
Specific Conductance	60 umhos/cm @ 25c	EPA 120.1	5	5	7/16/24	-	KJP
Sulfate	7.85 mg/L	EPA 300.0	0.10	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	51 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
Dissolved							
Chromium - Hexavalent	ND mg/L	SM 3500-Cr B	0.02	0.01	7/17/24	QC74813	AMJ
Mercury	ND mg/L	EPA 245.7	0.0002	0.00002	7/18/24	QC74840	JJA
Aluminum	0.012 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN
Antimony	ND mg/L	EPA 200.8	0.0012	0.00012	7/17/24	QC74812	MBN
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Barium	0.0156 mg/L	EPA 200.8	0.0007	0.00007	7/17/24	QC74812	MBN
Beryllium	ND mg/L	EPA 200.8	0.0001	0.000008	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Copper	0.0021 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level

MDL = Method Detection Limit

mg/L = Milligrams Per Liter or PPM

ug/L = Micrograms Per Liter or PPB

mpn/100 mls = Most Probable Number Index/ 100 mls

Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID Left Hand Creek Composite
Sample Date/Time: 7/15/24 5:05 PM
Lab Number: 240716120-01

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
<u>Dissolved</u>							
Lead	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Molybdenum	0.0005 mg/L	EPA 200.8	0.0005	0.00005	7/17/24	QC74812	MBN
Nickel	ND mg/L	EPA 200.8	0.0009	0.00005	7/17/24	QC74812	MBN
Zinc	0.004 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN
Boron	ND mg/L	EPA 200.7	0.05	0.01	7/18/24	QC74819	MBN
Calcium	6.5 mg/L	EPA 200.7	0.1	0.01	7/18/24	QC74819	MBN
Iron	0.018 mg/L	EPA 200.7	0.005	0.0005	7/18/24	QC74819	MBN
Magnesium	1.71 mg/L	EPA 200.7	0.02	0.002	7/18/24	QC74819	MBN
<u>Total</u>							
Chromium - Trivalent	ND mg/L	Calculation	0.02	0.01	7/17/24	-	MBN
Total Hardness	22.1 mg/L as CaCO ₃	SM 2340-B	0.1	-	7/18/24	-	MBN
Mercury	ND mg/L	EPA 245.7	0.0002	0.00002	7/18/24	QC74840	JJA
Aluminum	0.029 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Chromium	ND mg/L	EPA 200.8	0.0015	0.00015	7/17/24	QC74812	MBN
Copper	0.0026 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Lead	0.0002 mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	0.0053 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Molybdenum	0.0005 mg/L	EPA 200.8	0.0005	0.00005	7/17/24	QC74812	MBN
Calcium	6.2 mg/L	EPA 200.7	0.1	0.01	7/18/24	QC74819	MBN
Iron	0.063 mg/L	EPA 200.7	0.005	0.0005	7/18/24	QC74819	MBN
Magnesium	1.62 mg/L	EPA 200.7	0.02	0.002	7/18/24	QC74819	MBN

Ammonium Sulfate buffer solution added upon arrival to laboratory to extend Hex-Cr hold time to 28 days.

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID Tailing Pond Composite
Sample Date/Time: 7/15/24 5:20 PM
Lab Number: 240716120-02

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	782 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	1396 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<u>Dissolved</u>							
Arsenic	0.0021 mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	ND mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
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mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID MW1 Composite
Sample Date/Time: 7/15/24 2:05 PM
Lab Number: 240716120-03

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	867 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	1417 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	0.0005 mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	0.1913 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.017 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID W1 Composite
Sample Date/Time: 7/15/24 2:20 PM
Lab Number: 240716120-04

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	80.6 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	186 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.010 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID W2 Composite
Sample Date/Time: 7/15/24 2:30 PM
Lab Number: 240716120-05

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	138 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	268 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	0.0003 mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.050 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID W3 Composite
Sample Date/Time: 7/15/24 2:40 PM
Lab Number: 240716120-06

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	98.4 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	257 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.005 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

Abbreviations/ References:

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MDL = Method Detection Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

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(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

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Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID W4 Composite
Sample Date/Time: 7/15/24 2:55 PM
Lab Number: 240716120-07

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	52.7 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	203 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<i><u>Dissolved</u></i>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	ND mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.001 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

Abbreviations/ References:

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mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID MW5 Composite
Sample Date/Time: 7/15/24 3:35 PM
Lab Number: 240716120-08

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	327 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	684 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<i><u>Dissolved</u></i>							
Arsenic	0.0010 mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	ND mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	0.0543 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.002 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

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Date Analyzed = Date Test Completed

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ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld
Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID Cash Mine Pond Composite
Sample Date/Time: 7/15/24 3:50 PM
Lab Number: 240716120-09

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	734 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	1195 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<u>Dissolved</u>							
Arsenic	0.0009 mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	0.0027 mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	0.0009 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.737 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

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ug/L = Micrograms Per Liter or PPB
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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 240716120

Report To: Ben Langenfeld

Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Bill To: Ben Langenfeld

Company: Colorado Milling CO
P.O. Box 99
Moab UT 84532

Task No.: 240716120
Client PO:
Client Project: Gold Hill

Date Received: 7/16/24
Date Reported: 7/29/24
Matrix: Water - Ground

Customer Sample ID Cash Gulch Composite

Sample Date/Time: 7/15/24 4:10 PM

Lab Number: 240716120-10

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Sulfate	162 mg/L	EPA 300.0	1.00	0.012	7/17/24	QC74805	NRP
Total Dissolved Solids	308 mg/L	SM 2540-C	5	2	7/23/24	QC74897	ISG
<u>Dissolved</u>							
Arsenic	ND mg/L	EPA 200.8	0.0006	0.00006	7/17/24	QC74812	MBN
Cadmium	0.0003 mg/L	EPA 200.8	0.0001	0.000006	7/17/24	QC74812	MBN
Manganese	0.0112 mg/L	EPA 200.8	0.0008	0.00001	7/17/24	QC74812	MBN
Zinc	0.179 mg/L	EPA 200.8	0.001	0.00003	7/17/24	QC74812	MBN

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Date Analyzed = Date Test Completed

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ND = Not Detected at Reporting Limit.

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical QC Summary

TASK NO: 240716120

Report To: Ben Langenfeld
Company: Colorado Milling CO

Receive Date: 7/16/24
Project Name: Gold Hill

Test	QC Batch ID	QC Type	Result	Method	Prep Date
Total Alkalinity	QC74826	Blank	ND	SM 2320-B	7/16/24
Chloride	QC74803	Blank	ND	EPA 300.0	7/16/24
Chromium - Hexavalent	QC74813	Blank	ND	SM 3500-Cr B	7/17/24
Cyanide-Total	QC74809	Blank	ND	EPA 335.4	7/17/24
Cyanide-Weak Acid Dissociable	QC74810	Blank	ND	ASTM 2036-09C	7/17/24
Fluoride	QC74800	Blank	ND	EPA 300.0	7/16/24
Mercury	QC74840	Method Blank	ND	EPA 245.7	7/18/24
Aluminum	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Antimony	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Arsenic	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Barium	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Beryllium	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Cadmium	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Chromium	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Copper	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Lead	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Manganese	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Molybdenum	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Nickel	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Zinc	QC74812	Method Blank	ND	EPA 200.8	7/16/24
Boron	QC74819	Method Blank	ND	EPA 200.7	7/16/24
Calcium	QC74819	Method Blank	ND	EPA 200.7	7/16/24
Iron	QC74819	Method Blank	ND	EPA 200.7	7/16/24
Magnesium	QC74819	Method Blank	ND	EPA 200.7	7/16/24
Nitrate Nitrogen	QC74801	Blank	ND	EPA 300.0	7/16/24
Nitrite Nitrogen	QC74802	Blank	ND	EPA 300.0	7/16/24
Sulfate	QC74805	Blank	ND	EPA 300.0	7/16/24
Total Dissolved Solids	QC74897	Blank	ND	SM 2540-C	7/22/24

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC74826	Duplicate -240712014-03	0 - 20	-	0.4	SM 2320-B
		LCS	90 - 110	97.9	-	
		LCS-2	90 - 110	102.9	-	
Chloride	QC74803	Duplicate -240715069-01	0 - 20	-	0.8	EPA 300.0
		LCS	90 - 110	101.8	-	
		MS -240715069-01	75 - 125	97.4	-	
Chromium - Hexavalent	QC74813	Duplicate -240709086-01	0 - 20	-	0.0	SM 3500-Cr B
		LCS	90 - 110	102.8	-	
Cyanide-Total	QC74809	Duplicate -240711114-01	0 - 20	-	0.0	EPA 335.4
		LCS	90 - 110	96.1	-	
		MS -240710189-01	75 - 125	100.0	-	
Cyanide-Weak Acid Dissociable	QC74810	Duplicate -240711077-03	0 - 20	-	5.7	ASTM 2036-09C

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Date Analyzed = Date Test Completed

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ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Fluoride	QC74800	LCS	90 - 110	98.1	-	EPA 300.0
		MS -240711044-06C	75 - 125	94.5	-	
		Duplicate -240715033-01	0 - 20	-	0.5	
Mercury	QC74840	LCS	90 - 110	98.1	-	EPA 245.7
		MS -240715033-01	75 - 125	89.5	-	
		Duplicate -240711017-21	0 - 20	-	0.0	
Aluminum	QC74812	LCS	90 - 110	101.8	-	EPA 200.8
		MS -240716039-01	70 - 130	104.7	-	
		MSD -240716039-01	0 - 10	-	0.0	
Antimony	QC74812	LCS	90 - 110	104.4	-	EPA 200.8
		MS -240716039-01	70 - 130	91.7	-	
		MSD -240716039-01	0 - 10	-	3.2	
Arsenic	QC74812	LCS	90 - 110	99.0	-	EPA 200.8
		MS -240716039-01	70 - 130	103.0	-	
		MSD -240716039-01	0 - 10	-	1.2	
Barium	QC74812	LCS	90 - 110	101.3	-	EPA 200.8
		MS -240716039-01	70 - 130	115.1	-	
		MSD -240716039-01	0 - 10	-	0.3	
Beryllium	QC74812	LCS	90 - 110	105.5	-	EPA 200.8
		MS -240716039-01	70 - 130	115.7	-	
		MSD -240716039-01	0 - 10	-	0.1	
Cadmium	QC74812	LCS	90 - 110	97.9	-	EPA 200.8
		MS -240716039-01	70 - 130	97.8	-	
		MSD -240716039-01	0 - 10	-	3.1	
Chromium	QC74812	LCS	90 - 110	101.9	-	EPA 200.8
		MS -240716039-01	70 - 130	102.1	-	
		MSD -240716039-01	0 - 10	-	3.2	
Copper	QC74812	LCS	90 - 110	97.3	-	EPA 200.8
		MS -240716039-01	70 - 130	102.7	-	
		MSD -240716039-01	0 - 10	-	1.8	
Lead	QC74812	LCS	90 - 110	107.5	-	EPA 200.8
		MS -240716039-01	70 - 130	107.9	-	
		MSD -240716039-01	0 - 10	-	0.0	
Manganese	QC74812	LCS	90 - 110	102.0	-	EPA 200.8
		MS -240716039-01	70 - 130	113.2	-	
		MSD -240716039-01	0 - 10	-	0.0	
Molybdenum	QC74812	LCS	90 - 110	97.0	-	EPA 200.8
		MS -240716039-01	70 - 130	104.5	-	
		MSD -240716039-01	0 - 10	-	1.2	
Nickel	QC74812	LCS	90 - 110	101.0	-	EPA 200.8
		MS -240716039-01	70 - 130	98.9	-	
		MSD -240716039-01	0 - 10	-	1.5	
Zinc	QC74812	LCS	90 - 110	98.0	-	EPA 200.8
		MS -240716039-01	70 - 130	88.0	-	
		MSD -240716039-01	0 - 10	-	1.7	
Boron	QC74819	Duplicate -240716031-01	0 - 20	-	0.0	EPA 200.7
		LCS	90 - 110	102.8	-	
		MS -240716034-12	75 - 125	93.4	-	
Calcium	QC74819	Duplicate -240716031-01	0 - 20	-	15.2	EPA 200.7

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ND = Not Detected at Reporting Limit.

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Iron	QC74819	LCS	90 - 110	97.4	-	EPA 200.7
		MS -240716034-12	75 - 125	107.2	-	
		Duplicate -240716031-01	0 - 20	-	8.3	
Magnesium	QC74819	LCS	90 - 110	105.4	-	EPA 200.7
		MS -240716034-12	75 - 125	103.3	-	
		Duplicate -240716031-01	0 - 20	-	16.6	
Nitrate Nitrogen	QC74801	LCS	90 - 110	99.3	-	EPA 300.0
		MS -240715033-01	75 - 125	107.0	-	
		Duplicate -240715033-01	0 - 20	-	0.8	
Nitrite Nitrogen	QC74802	LCS	90 - 110	99.0	-	EPA 300.0
		MS -240715033-01	75 - 125	89.1	-	
		Duplicate -240715033-01	0 - 20	-	0.0	
Sulfate	QC74805	LCS	90 - 110	92.9	-	EPA 300.0
		MS -240715069-01	75 - 125	90.0	-	
		Duplicate -240715069-01	0 - 20	-	0.2	
Total Dissolved Solids	QC74897	LCS	90 - 110	99.3	-	SM 2540-C
		MS -240715069-01	75 - 125	106.3	-	
	QC74897	LCS	85 - 115	99.9	-	
		Duplicate -240716118-02	0 - 10	-	2.2	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level

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ND = Not Detected at Reporting Limit.

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507



Commerce City Lab
10411 Heinz Way
Commerce City CO 80640

Lakewood Service Center
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313

www.coloradolab.com

Ammonium Sulfate buffer solution
added upon arrival to laboratory to
extend Hex-Cr hold time to 28 days.

Initials: W Date: 7-16-24

Per history, prior
conversation w/
customer &
container provided
cyanide WAD total
is needed, DO NOT
perform field
parameters. -th
7/16/24

Chain of Custody Form

Report To Information		Bill To Information (If different from report to)		Project Name / Number	
Company Name: <u>Colorado Milling Co</u>		Company Name: _____		_____	
Contact Name: <u>Ben Langford</u>		Contact Name: _____		_____	
Address: <u>Lewicki & Associates</u>		Address: _____		Task Number (Lab Use Only)	
City	State	Zip	City	State	Zip
Phone: <u>303-960-5613</u>			Phone: _____	CAL Task 240716120	
Email: <u>ben1@lewicki</u>			Email: _____	JML	
Sample Collector:		PO No.:			
Sample Collector Phone:					

Sample Matrix (Select One Only)				Sample ID	
Waste Water ☐	Soil ☐	Drinking Water ☐	Ground Water ☐	Sludge ☐	Surface Water ☐
Date	Time				
7/15/24	5:05 PM	Left hand creek (see enclosed test list)			
"	5:20 PM	Fairview Pond			
"	2:05 PM	MMW-1			
"	2:20 PM	W-1			
"	2:30 PM	W-2			
"	2:40 PM	W-3			
"	2:55 PM	W-4			
"	3:35 PM	MMW-5			
"	3:50 PM	CASH mine Pond			
"	4:10 PM	CASH Gulch			

Instructions: <u>Paid Check</u>		C/S Info:		Seals Present Yes ☐ No ☐	
Relinquished By: <u>Ben Langford</u>	Date/Time: <u>7/16/24 11:06 PM</u>	Received By: _____	Date/Time: _____	Deliver Via: <u>Hand</u>	C/S Charge ☐
Date/Time: <u>7/16/24 11:06 PM</u>		Date/Time: <u>7/16/24 11:06</u>		Temp. <u>1.4</u> °C/Ice <u>Y</u>	Sample Pres. Yes ☒ No ☐

Aluminum, dissolved	CAL Task
Aluminum, total	240716120
Antimony, dissolved	
Arsenic, dissolved	JML
Arsenic, total	
Barium, dissolved	
Beryllium, dissolved	
Bicarbonate as CaCO3	
Boron, dissolved	
Cadmium, dissolved	
Cadmium, total	
Calcium, dissolved	
Carbonate as CaCO3	
Cation-Anion Balance	
Chloride	
Chromium, total	
Chromium, Trivalent Total	
Conductivity @25C	
Copper, dissolved	
Copper, total	
Cyanide, total	*
Cyanide, WAD	*
Dissolved Chromium, Hexavalent	
Field Conductivity @25C	
Field Dissolved Oxygen	
Field pH	
Field Temperature	
Field Turbidity	
Fluoride	
Hardness as CaCO3 (dissolved)	
Hydroxide as CaCO3	
Iron, dissolved	
Iron, total	
Lead, dissolved	
Lead, total	
Magnesium, dissolved	
Manganese, dissolved	
Manganese, total	
Mercury, dissolved	
Mercury, total	
Molybdenum, dissolved	
Molybdenum, total	
Nickel, dissolved	
Nitrate/Nitrite as N	

For left hand creek only + testing