

## **Union Milling Contractors**

P.O. Box 620490 Littleton, CO 80162-0490 +1.303.947.3499

4 June 2021

Dustin Czapla Division of Reclamation, Mining and Safety Department of Natural Resources 1313 Sherman St., Room 215 Denver, CO 80203

### RE: 2021 Annual Report, M1990-057 Leadville Mill

Dear Mr. Czapla,

The Annual Report for mine permit M-1990-057 is filed, as well as the payment of \$518.00. The 110d Annual Report Form electronically submitted along with our Annual Fee Invoice and Report is completed, signed and included with this documentation.

This annual report addresses the activities conducted on site from the previous period - June 18, 2020 to June 3, 2021 - and also addresses the proposed activities for the upcoming period from June 4, 2021 to June 3, 2022.

We have commenced moving the historic tailings to the upper level per TR5, as approved by the Division on 30 December 2020. Moving these tailings is in preparation for feeding the material through our process and placing into the tailing storage facility (TSF) as required in 110(d) permit. This work is ongoing. No other disturbances have occurred at the Leadville Mill in the past 12 months; and no permanent reclamation activities have occurred at the Leadville Mill site within the past 12 months.

Over the next year we plan to; complete construction of the TSF, construct the crushers, and complete some modifications inside the building. These activities are in our existing Reclamation permit and the CUP.

We have also applied to amend our permit to include agitated leach using cyanide and to increase our surface disturbance area. Assuming this permit is obtained, we will also complete the mill facility, which will primarily include the addition of leach tanks and other process related equipment on the property.

We will also submit the SOO documentation to the Division.

If you have additional questions or need additional information, please contact me at 303-947-3499 or nmichael@unionmilling.com.

Sincerely,

Nick Michael

Nick Michae Member

attachments

## Annual Report

The 110d Annual Report Form has been electronically submitted along with our Annual Fee Invoice and CDRMS Report Request is completed, signed and included with this documentation. See Page 6.

## **Property**

Permit M-1990-057 includes the Leadville Mill. The permit operator is:

Union Milling Company, LLC (UMC) Nick Michael, Member P. O. Box 620490 Littleton, CO 80162-0490 303-947-3499

The Leadville Mill is located in the Northeast Quarter of the Northeast Quarter of Section 33, and the Southeast Quarter of the Southeast Quarter of Section 28, Township 9 South, Range 80 West. The county designated address is 13815 Highway 24, Lake County, Colorado. The owner of the Leadville Mill is:

Constructive Investments, LLC Nick Michael, Member PO Box 620490 Littleton, CO 80162-0490

## Activities: June 18, 2020 to June 3, 2021

The mill remained idle, on care and maintenance status, with no production or milling occurring in the last 12-month period.

The Leadville Mill activities for the past 12 months are presented below.

1. <u>Groundwater Quality Sampling</u>. Monitoring wells MW-2 located at approximate coordinates N39°13'44.17", W106°19'59.98"", elevation 9701ft, and MW-3 located at approximate coordinates N39°13'49.87", W106°19'53.61", elevation 9744ft were tested. Locations are shown on the attached map.

Water samples have now been collected and tested for 26 consecutive quarters through Q1 2020. Results are summarized in **Exhibit 1**. In all testing, cyanide was not detected.

- Surface Water Quality Sampling. Quarterly surface water quality sampling from three stations, SW-1 through SW-3 could not be performed due to insufficient stream flows to collect samples during the summer, fall, winter and spring sampling periods. However, sampling of the perched aquifer within the pit was sampled when accessible. Results are summarized in Exhibit 1. Note that sampling could not be performed during periods when the TSF was snow covered and the perched aquifer was frozen.
- 3. <u>TSF Construction</u>. There was no TSF construction in the last year.
- 4. <u>Signage</u>. Permanent mill permit identification signs (metal-style) were maintained on the main gate to the facility and on the mill building, identifying the UMC and our permit number.

- 5. <u>Fencing</u>. The barbed wire property boundary fence was repaired in various areas where it was broken by wildlife. Fence maintenance is required by our Lake County Conditional Use Permit.
- 6. <u>Permit Boundary</u>. Permit boundary stakes were maintained as required.
- 7. <u>Mill Facility Activity</u>. The mill buildings and equipment were maintained in preparation of reconditioning and restarting the mill.
- 8. <u>Sediment Control</u>. Sediment control measures were performed on an as needed basis (temporary straw wattle construction around the ore stockpiles, temporary historic tailings storage, and new tailings storage facility). Additionally, culverts were cleaned, and berms and roads were maintained as required.
- Ore Stockpiles. Ore stockpiles remain covered for most of the year as required. However, during the week of 24 May 2021 we started the process of moving the tailings to the upper level in preparation of placing them in the TSF. This work was approved by the Division on 30 December 2020 in TR 5, and should be completed by week of 14 June 2021
- 10. <u>Weed Control</u>. Weed control measures were performed as required and according to the weed management plan. Identified weed species are Oxeye daisies and Canada thistle. Weeds occur sporadically near access roads, the mill building and the fence bordering the water treatment plant (East side of property). Ongoing spraying activities have significantly reduced weeds on the property. Current practice involves walking around property and spraying weeds as required over the June – September growing season.
- 11. Permitting Activity.
  - UMC submitted a status report to the Lake County Commissioners as required by our Conditional Use Permit (CUP).
  - 112(d) Amendment document filed with DRMS.
  - Stormwater permit
- 12. <u>Reclamation/Bond</u>. No permanent reclamation occurred at the mill in the last 12 month period. Additional interim stabilization activities continued within existing disturbed areas. An Irrevocable Letter of Credit remains in place for \$64,430 from the Bank of Colorado of Yuma, CO for the Leadville Mill bond.

### Anticipated Activities: June 4, 2021 to June 3, 2022

Activity at the site will continue throughout the summer focusing on permissible activities. 112(d) permit activities will commence after the permit is approved. Work will continue yearround, weather permitting. All activity, as described below will be within the currently permitted disturbance area **Figure 1**, **Map** is submitted showing the current disturbance outline and major proposed activities within the current disturbance area.

UMC's planned activities for the year will occur in two phases; Phase 1 associated with environmental and permit-related activities, and Phase 2 work related with construction activities required to initiate mill operations.

Phase 1 – Environmental & Permit Activities:

- 1. Continue Ground- and Surface-water monitoring activity as required.
- 2. Continue routine care and maintenance activities as required by our 110(d) and Lake County CUP permits.
- 3. Support the Division with its review of the 112(d) Permit.
- 4. Submit Succession of Operator documentation.

- 5. Renewal of APENs with CDPHE.
- 6. Prepare and submit the CUP with Lake County

### Phase 2 – Construction Activities:

Construction activities are currently planned to include

Work Under 110(d) Permit:

- 1 Complete move historic tailings to upper level. See photo in **Figure 2**.
- 2 Continue metallurgical testing to optimize process flowsheet
- 3 Build crusher circuit, includes a building permit from Lake County. This approved in current CUP. However only after a detailed plan is submitted and approved by the Division. This submittal will be accompanied with an updated map showing the proposed activities.
- 4 Complete TSF construction by installing liners and leak detection.
- 5 Initiate mill startup September 2021.
- 6 Initiate removal of the sulfidic ore in the temporary ore stockpiles within 60 days of resumption of milling operations.
- 7 No additional land will be disturbed; no additional land will be permanently reclaimed. The mill disturbed area will remain at 8.1 acres.

Work Upon Approval of 112(d) Permit

- 1. Install leach tank pad and leach tanks.
- 2. Construct Au/Ag recovery circuit.
- 3. Initiate mill startup. This assume that Penn Mine Permit 2021-032 is approved by the Division, the CUP is obtained from Lake County, and all other permits to operate are granted.
- 4. Initiate removal of the sulfidic ore in the temporary ore stockpiles within 60 days of resumption of milling operations.
- 5. Commence and submit Permit Amendment to expand TSF.

## Exhibit 1: Water Quality

| (N <b>O) əbin</b> svO        |                 | 00000.    | 0.00000     | 0.00000 | 0.00000     | 0.00000     |   | 0.00000.0         | 0.00000 | 0.00000      |     | 0.00000     | 0.00000     | 0.00000    | 0.00000     |      | 0.00000   | 0.00000   | 0.0000                     | 00000   | 0 0000      | 0.00012 | 0.00000  | 0.00000     |      |                       | 0.00000 | 0.0000.0    |      | 0.00000     |         |            |            |         | 0.0000 | 0.00012 | 0.00002            |
|------------------------------|-----------------|-----------|-------------|---------|-------------|-------------|---|-------------------|---------|--------------|-----|-------------|-------------|------------|-------------|------|-----------|-----------|----------------------------|---------|-------------|---------|----------|-------------|------|-----------------------|---------|-------------|------|-------------|---------|------------|------------|---------|--------|---------|--------------------|
|                              |                 |           |             |         |             | <u> </u>    |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         | ooqte    |             |      |                       |         |             |      |             |         |            |            |         |        |         | 0                  |
| Nitarte Nitrite as N         |                 |           |             |         |             |             |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         |          |             |      |                       | 0.001   | 0.001       |      | 0.00170     |         |            |            |         |        |         |                    |
| N ss 91511                   |                 |           |             |         |             |             |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         |          |             |      |                       | 0.001   |             |      | •           |         |            |            |         |        |         |                    |
| Sulfate                      |                 |           |             |         |             |             |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         |          |             |      |                       | 0.420   | 0.350       |      | 0.28000     |         |            |            |         |        |         |                    |
| Flouride                     |                 |           |             |         |             |             |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         |          |             |      |                       | 0.000   | 0.000       |      | 0.00000     |         |            |            |         |        |         |                    |
| Nitrite as N                 |                 |           |             |         |             |             |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         |          |             |      |                       | 0.000   | 0.000       |      | 0.00000     |         |            |            |         |        |         |                    |
| Chloride                     |                 |           |             |         |             |             |   |                   |         |              |     |             |             |            |             |      |           |           |                            |         |             |         |          |             |      |                       | 0.015   | 0.023       |      | 0.02700     |         |            |            |         |        |         |                    |
|                              |                 |           | T           |         |             |             | Ì |                   |         |              | λųd | ðral        | atoj        | шо.<br>    | цэ          | uoj  | 'su       | ioin      | A 0.0                      | )08<br> | ; pol       | lj9M    |          |             | T    |                       | 23      | 8           |      | 8           |         |            |            |         |        | T       |                    |
| Mercury (Hg)                 |                 |           |             |         |             |             |   |                   |         |              |     | (           | AA \        | <u>(</u> ) | ر<br>رانگ   | lêrc | W -       | L.Ct      | 7 pc                       | -<br>u  | ЭŴ          |         |          |             |      |                       | 0.00023 | 0.00000     |      | 0.00000     |         |            |            |         |        |         |                    |
| (nZ) əniZ                    | 0015            | C 0.0     | 0.048       | 0.054   | 0.072       | 0.095       | 1 | 0.038             | _       |              |     | 0.028       | 0.015       |            | 0.035       |      | 0.046     | 0.035     | 0.072                      | _       | 0 02 1      | 0.110   | 0.071    | 0.042       |      | 0.049<br>0.049        |         | 0000        | -    | 0.013       | Ι       | Ι          |            | 0000    | _      | _       |                    |
| (V) muibeneV                 | 0.001           |           | 0.000       |         | 0.007       | 0.006       |   | 0.000             | -       |              |     | _           | _           | -          | 0.000       |      |           | 0.000     |                            |         | 0 007       | _       |          | 0.000       |      |                       | -       | 0000        |      | 0.000       |         |            |            | 0000    |        |         |                    |
| U) muinsi)                   | 000             |           | 0 0.001     | -       | 0 0.002     | 0 0.002     |   | 0 0.002           |         | 0 0.002      |     |             |             |            | 0 0.002     |      |           |           | 0 0.004                    |         | 0 0 008     | _       | _        | 0 0.007     |      | 0.000 0               | _       | 0 0.005     |      | 0 0.009     |         |            |            | 0 0 001 |        |         | 0 0.002            |
| (UT) muilledT                |                 |           | 000.0 00    | -       |             | 000.0 00    |   | 000.0 00          | -       | 000.0 00     |     |             |             | _          | 000.0 000   |      | _         | _         |                            | _       |             | -       | + +      | 000 0.000   |      |                       | _       | 000.0 00    |      | 000.0       | +       | +          |            |         | -      |         | 000.0 00           |
| Selenium (Se)<br>Silver (Ag) |                 | 0.0 200   | 0.000 0.000 | -       | 0.000 0.000 | 0.000 0.000 |   | 0.000 0.000 0.000 | -       | 0.000 0.000  |     |             |             | _          | 0.000 0.000 |      |           | _         |                            | _       |             |         | _        | 0.000 0.000 |      |                       |         | 0.000 0.000 |      | 0.000 0.000 | ╀       |            |            |         |        |         | 0.000 0.000        |
| Nickel (Ni)                  | 0.005 0         | · · · · · | 0.005 0.    |         | 0.006 0.    | 0.007 0.    |   | 0.005 0.          | _       | 0.003 0.     |     |             | _           |            | 0.000 0.0   |      |           | _         | 0.000 0.0                  |         | 0 005 0     |         |          | 0.003 0.    |      | 0.004                 | -       | 0.000 0.    |      | 0.005 0.    | ╉       |            |            | 0 000 0 |        |         | 0.002 0.           |
| (oM) munəbdyloM              | 0.005           | 0,000     | 0.000       |         | 0.000 (     | 0.000       |   | 0000.0            | _       | 0.000 (      |     |             | _           |            | 0.000       |      |           | _         |                            |         | 0000        | _       | -        | 0.003 (     |      |                       |         | 0.000       |      | 0.000       |         |            |            | 0 000 0 |        |         | 0.001 (            |
| (nM) əsənsgnsM               |                 | 0.030     | 0.160       | 0.300   | _           | 0.630       |   | 0.370             |         |              |     | 0.170       |             | 0.100      | 0.110       |      | 0.240     |           | 0.042                      |         | 0.210       | 0.580   |          | 0.280       | 0110 | 0.400                 | -       | 0.052       |      | 0.140       |         |            |            | 0 0 0 1 | 0.243  | 0.830   | 0.207              |
| Lead (Pb)                    | 0 001           | 100.0     | 0.010       |         | 0.002       | 0.003       |   | 0.008             | -       | 600.0        |     |             | _           |            | 0.005       |      |           | 0.005     |                            |         | 0 004       |         |          | 0.007       |      | 0.014                 |         | 0.001       |      | 0.001       |         |            |            | 0 00 0  |        |         | 0.007              |
| Copper (Cu)                  | 1 0.000         | 200.0     | 0 0.010     |         | 2 0.001     | 2 0.002     |   | 2 0.011           | -       | 0 0.006      |     |             |             | _          | 0 0.009     |      |           |           | 0 0.003                    |         | 0 0 019     | _       | _        | 1 0.006     |      | 0 0.000<br>1 0.008    |         | 0 0.000     |      | 0 0.020     |         |            |            |         |        |         | 1 0.007            |
| Cobalt (Co)                  | 1000            | 0.0       | 48 0.000    |         | _           | 39 0.002    |   | 55 0.002          |         | 41 0.000     |     |             |             | _          | 41 0.000    |      |           | 0000 0000 |                            |         | 62 0 000    | _       | <u> </u> | 30 0.001    | 000  | 2 1 0.000<br>D8 0.001 |         | 0.000       |      | 50 0.000    |         |            | _          |         |        |         | 35 0.001           |
| նշ) muimbsጋ<br>Chromium (Cr) |                 |           | 0.000 0.048 | _       | 0.001 0.031 | 0.001 0.039 |   | 0.000 0.065       | _       | 0.000 0.041  |     |             |             |            | 0.000 0.041 |      |           | _         |                            |         | 0 000 0 062 |         | + +      | 0.001 0.130 |      | 0.000 0.008           | _       | 0.000 0.003 |      | 0.000 0.050 | +       |            |            |         |        |         | 0.001 0.035        |
| Beryllium (Be)               |                 |           | 0.000 0.0   |         | 0.000 0.0   | 0.000 0.0   |   | 0.000 0.0         |         | 0.000 0.0    |     |             |             |            | 0.000 0.0   |      |           | _         |                            |         |             |         |          | 0.000 0.0   |      |                       | -       | 0.000 0.0   |      | 0.000 0.0   | ╀       | ╀          |            |         |        |         | 0.000 0.0          |
| (Ba) muiseB                  | 0 032 0         | 7 200.0   | 0.072 0     | -       | 0.140 0     | 0.170 0     |   | 0.078 0           |         |              |     |             | _           | _          | 0.048 0     |      |           | 0.045 0   |                            |         | 0.043_0     | _       |          | 0.062 0     |      | 0.082 0               | -       | 0.021 0     |      | 0.025 0     | ╉       | +          |            | 0 003 0 |        |         | 0.044 0            |
| Arsenic ( <b>A</b> s)        | 0000            | 0.000     | 0.000       | 0.000   | 0.000       | 0.000       |   | 0.000             | 0.000   | 0.000        |     | 0.000       | 0.000       | 0.000      | 0.000       |      | 0.000     | 0.000     | 0.000                      | 0000    | 0000        | 0.006   | 0.012    | 0.000       |      | 0000                  |         | 0.000       |      | 0.000       |         |            |            | 0000    | 0.001  | 0.012   | 0.003              |
| (d2) γnomi <b>ĵn</b> A       |                 | 000.0     | 0.000       | 0.000   | 0.000       | 0.000       |   | 000.0             | 0.000   | 0.000        |     |             |             |            | 0.000       |      |           |           |                            |         |             |         | 0.000    | 0.000       |      | 0000                  | 0.000   | 0000        |      | 0.000       |         |            |            | 0000    | 0.000  | 0.000   | 0.000              |
| lron (Fe)                    | oll ortod       | nanalin   | Γ           |         |             |             | T |                   |         |              |     | z D v       |             | 50,        | Drv         | 50   |           |           | 500                        |         | -4+0        |         |          |             | T    |                       | 6.700   | 9.600       |      | 28.000      | Τ       | Τ          |            | 6 700   | 14.767 | 28.000  |                    |
| Boron (B)                    | Data not co     |           | F           |         |             |             | F |                   |         |              |     |             |             |            |             | ŀ    |           |           |                            |         |             |         |          |             | F    |                       | 0.000   |             |      | 0000        | ╉       | $\uparrow$ |            | 0000    | L.     |         |                    |
| stinU                        | / טע            | III d/L   | ma/L        | mg/L    | mg/L        | mg/L        |   | mg/L              | Τ.      | erat<br>erat | NOC | mg/L<br>Rec | mg/L<br>tal | mg/L       | mg/L        | 1    | mg/L<br>" |           | mg/L                       |         | <u>2'00</u> | 1       | etho     | mg/L M      |      | mg/L                  |         |             |      | mg/L        | IIIG/L  | mg/L       | 3' L       | l/om    |        |         | mg/L               |
| Sample<br>Date               | 16-Doc-11 n     |           | 27-Mar-15   | -       |             | 05-Oct-15 n |   | 26-Jun-16 n       | -       |              |     | _           |             |            | 04-Dec-17 n | -    |           |           | 02-Sep-18 n<br>15-Oct-18 n | _       | 25-Mar-19   |         |          | 08-Nov-19 n |      | 20-INIAI-20 II        |         |             |      | 27-Mar-21 n |         |            | -          |         |        |         |                    |
| Analyte                      | 2014<br>2014-04 |           | Ļ           |         |             | 4           | F | 2016-Q1           |         | 2016-Q4      |     |             |             |            | 4           | F    |           | 2018-Q2   |                            |         | 2019-01     |         |          | 2019-Q4     |      |                       |         | 4           | 2021 | 2020-Q1     | 2020-03 | 2020-020   | STATISTICS | Minimum | Mean   | Maximum | Standard Deviation |

## **Groundwater Test Results** M1990-057 LEADVILLE MILL

## Table 1: MW-2 (Southwest)

Notes: (1) A "0.000" value denotes NOT DETECTABLE laboratory result. (2) A "blank" cell in the table denotes no data collected.

|                         |      |                | _ |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        |                         |           |      |           |           |                               |      |           |         |         |         |            |         |          |         | _                  |
|-------------------------|------|----------------|---|-----------|-----------|-----------|-----------|------|-----------|-----------|-----------|---------------|--------|-----------|-----------|-----------|------------------|-------|-----------|-----------|-----------|-----------|------|------------------------|-------------------------|-----------|------|-----------|-----------|-------------------------------|------|-----------|---------|---------|---------|------------|---------|----------|---------|--------------------|
| (NC) əbins(C            |      | 0.0000         |   | 0.00000   | 0.00000   | 0.00000   | 0.00000   |      | 0.00000   |           |           | 0.00000<br>WS |        |           |           |           | <b>6</b> 0.00000 | ıəw   |           | 0.00000   |           | 0.00000   |      | 901 0.00000<br>0.00000 |                         | 0.00000   |      | 0.00000   | 0.0000    | 0.00000                       |      | 0.0000    |         |         |         |            | 0.00000 | 0.00001  | 0.00012 | 0.00002            |
| Nitarte Nitrite as N    |      |                |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        |                         |           |      |           | 0.00      | 0.005                         |      | 0.00260   |         |         |         |            |         |          |         |                    |
| Nitrate as N            |      |                |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        |                         |           |      |           | 0.005     |                               |      |           |         |         |         |            |         |          |         |                    |
| Sulfate                 |      |                |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        | T                       |           |      |           | 0220      | 0.370                         |      | 0.43000   |         |         |         |            |         |          |         |                    |
| Flouride                |      |                |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      | T                      | T                       |           |      |           |           | 0000                          |      | 0.00000.0 |         |         |         |            |         |          |         |                    |
| Nitrite as N            |      |                |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        |                         |           |      |           |           | 0000                          |      | 0.00000   |         |         |         |            |         |          |         |                    |
| Chloride                |      |                |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        |                         |           |      |           | 0.014     | 0.015                         |      | 0.01200 ( |         |         |         |            |         |          |         |                    |
| աթւշուծ (Hg)            |      |                |   |           |           |           |           |      |           |           |           |               | Λ́цd   | ðra       | iote      | ewo       | JUC              | ) uo  | ) 's      | noir      | ıA (      | ).00      | s po | etpo                   | W                       |           |      |           |           | 0.0000.0                      |      | 0.00000   |         |         |         |            |         |          |         |                    |
| (~[]) / 2.1.52.5 []     |      |                |   |           |           |           |           |      |           |           |           |               |        | ()        | AA'       | vD)       | ۲u               | ercr  | - W       | 5.1       | 54        | ooy       | t9M  |                        |                         |           |      |           |           | 0.0                           |      | 0.0       |         |         |         |            |         |          |         | _                  |
| (nZ) əniZ               |      | 0.000          |   | 0.000     | 0.000     |           | 0.000     |      |           | _         | _         | 0.000         | . k    | _         |           | _         | 0.000            |       | _         | 0.041     | _         | 0.000     |      | 0.000                  | _                       | _         |      |           | 0.100     | _                             |      | 1.300     |         |         |         |            | _       |          |         | 0.269              |
| (V) muibeneV            |      | 0.008          |   | 0.000     | 0.015     | 0.004     | 0.018     |      |           | _         | _         | 0.000         | - F    | _         | 0.012     |           | 0.044            |       | 0.210     | -         | _         | 0.290     |      | 0.350                  | _                       | _         |      |           | 0.000     | _                             |      | 0.000     |         |         |         |            | _       | -        | _       | 0.102              |
| (U) muinsıU             |      | 0.001          |   | 0.000     | 0.000     | 000.0     | 0.000     |      |           | -         | -         | 0.000         | - F    | _         |           | 0.000     | 0.000            |       | 0.000     | 0.000     | 0.000     | 0.000     |      | 0.005                  | _                       | _         |      | _         | 0.000     | _                             |      | 0.008     |         |         |         |            | -       | _        | _       | 0.003              |
| (IT) muilledT           |      | 0.008          |   |           | 0.009     | -         | 0.007     |      | 0         | o.        | o.        | 0.005         |        | o.        | 0.        | 0.        | 0.005            |       |           |           | 0.        | 0.005     |      | 0.005                  | - C                     |           |      | 0.000     |           | 0000                          |      | 0.000     |         |         |         |            |         | <u>.</u> | 0       | 0.003              |
| (gA) əvliS              |      | 0.000          |   | 0.000     | 0.000     | 0.000     | 0.000     |      |           |           | 0.000     | 0.000         |        | 0.000     | 0.000     | 0.000     | 0.000            |       | 0.000     | 0.000     | 0.000     | 0.000     |      | 0.000                  |                         |           |      | 0.000 0.0 | 0.000     | 00000                         |      | 0.000     |         |         |         |            | 0.000   | 0.000    | 0.000   | 0.000              |
| (ə <b>S) muinələ</b> S  |      | 0.000          |   | 0.000     | 0.000     | 0.000     | 0.000     |      | 0.000     | 0.000     | 0.000     | 0.000         |        | 0.000     | 0.000     | 0.000     | 0.000            |       | 0.000     | 0.000     | 0.000     | 0.000     |      | 0.000                  |                         | 0.000     |      | 0.000     | 0.000     | 0.000                         |      | 0.000     |         |         |         |            | 0.000   | 0.000    | 0.000   | 0.000              |
| Nickel (Ni)             |      | 0.000          |   | 0.000     | 0.000     | 0.000     | 0.000     |      |           | 0.000     | 0.000     | 0.000         | ĺ      | 0.000     | 0.000     |           | 0.000            |       |           | 0.000     |           | 0.000     |      | 0.000                  |                         |           |      |           | 0.000     | 0.003                         |      | 0.006     |         |         |         |            | 0.000   | 0.001    | 0.006   | 0.002              |
| (oM) munəbdyloM         |      | 0.003          |   | 0.000     | 0.003     |           | 0.002     |      |           | 0.002     | 0.003     | 0.000         | ĺ      | 0.000     | 0.000     | 0.000     | 0.000            |       |           | 0.000     | 0.002     | 0.003     |      | 0.004                  | _                       |           |      |           | 0.000     | 0.000                         |      | 0.000     |         |         |         |            | _       | 0.001    | 0.004   | 0.001              |
| (nM) əsənsgnsM          |      | 0.004          |   | 0.000     | 0.000     |           | 0.000     |      |           |           |           | 000.0         |        |           |           |           | 0.000            |       |           |           |           | 0.000     |      | 0.000                  | _                       | -         |      |           | 0.022     |                               |      | 0.018     |         |         |         |            | -       |          | 15.000  | 2.941              |
| Lead (Pb)               |      | 0.023          |   | 0.019     | 0.005     |           | 0.051     |      |           | _         |           | 0.015         |        |           |           |           | 0.013            |       | 0.013     |           |           | 0.006     |      | 0.006                  | _                       |           |      |           | 0.003     |                               |      | 0.026     |         |         |         |            |         |          | 0.290   | 0.058              |
| Copper (Cu)             |      | 0.000          |   | 0.001     | 0.003     |           | 0.004     |      |           | _         | _         | 0.001         |        | _         |           |           | 0.001            |       | 0.015     |           |           | 0.005     | _    | 0.007                  | _                       |           |      |           | 0.013     | _                             |      | 0.520     |         |         |         |            | _       | _        | _       | 0.112              |
| Cobalt (Co)             |      | 0.003          |   | 0.000     | 0.000     |           | 0.002     |      |           |           | _         | 0.000         |        | _         | -         | _         | 0.003            |       |           | _         | -         | 0.058     |      | 0.063                  | _                       |           |      |           |           | 0.000                         |      | 0.000     |         |         |         |            |         | _        | _       | 0.028              |
| Chromium (Cr)           |      | 0.000          |   | 0.000     | 0.000     |           |           |      |           |           |           | 0.000         |        |           |           |           | 0.000            |       |           |           |           | 0.000     |      | 0.000                  |                         |           |      | 0.000     | 0.000     |                               |      | 0.000     |         |         |         |            |         | _        |         | 0.001              |
| (bϽ) muimbsϽ            |      | 0.003          |   | 0.000     | 0.000     |           | 0.000     |      | 0.000     | _         |           | 0.000         |        |           |           | 0.000     | 0.000            |       |           |           | 0.000     | 0.000     |      | 0.000                  |                         |           |      |           | 0.000     |                               | 2222 | 0.001     |         |         |         |            |         |          | _       | 0.012              |
| Beryllium (Be)          |      | 0.000          |   | 0.000     | 0.000     |           |           |      |           | _         |           | 0.000         |        |           | -         |           | 0.000            |       |           |           |           | 0.000     |      | 0.000                  |                         |           |      |           | 0.000     |                               |      | 000.0     |         |         |         |            |         | _        |         | 000.0              |
| (s8) muins8             |      | 0.000          |   | 0.000     | 0.000     |           | 0.000     |      |           | _         |           | 0.000         |        |           | -         |           | 0.000            |       |           |           | _         | 0.000     |      | 0.000                  | _                       | _         |      | 0.046     | \$00.0    | _                             |      | 0.054     |         |         |         |            | _       |          | 0.057   | 0.021              |
| Arsenic (As)            |      | 0.036          |   | 0.043     | 0.065     |           | 0.058     |      |           | _         | _         | 0.042         |        |           |           |           | 0.037            |       |           |           |           | 0.043     |      | 0.004                  |                         |           |      |           | 0.000     |                               |      | 0.000     |         |         |         |            |         | _        | _       | 0.031              |
| (d2) ynomitnA           |      | 0.000 (        |   | 0.000 (   | 0.000     | 0.000 (   | 0.000 (   |      |           | _         | _         | 0.000         |        | 0.000     | 0.000     | 0.000     | 0.000            |       | 0.000     | 0.000     | 0.000     | 0.000     |      | 0.000                  | _                       | _         |      |           | 0.000     | _                             | _    | 0.000 (   |         |         |         |            | _       | _        | _       | 0.000 (            |
| (21)1101                |      | ected          |   |           |           |           |           |      |           |           |           |               | ۲<br>ا | d3        | :  C      | 000       | 010              | I 'S  | W/d       | SI C      | 3.00      | d: 2      | oou; | θM                     |                         |           |      |           | 6         | 38                            |      | 8         |         |         |         |            | 8       | 033      | 00      |                    |
| Iron (Fe)               |      | Data not colle |   |           |           |           |           |      |           |           |           |               |        |           |           |           |                  |       |           |           |           |           |      |                        |                         |           |      |           |           | 0 3.300                       | _    | 48.(      |         |         |         |            | 2.2     | 18.      | 48.(    |                    |
| Boron (B)               |      | Data           |   |           |           |           |           |      |           |           | əld       | era           | 100    | Ke        | 191       | 0] (      | Cb)              | () SI | 61a       | W -       | ¢.4       | ۲ê۷       | 17.0 | : 50                   | pou                     | ĵ∋Mi      |      |           |           | 0000.0                        |      | 0.000     |         |         |         |            | 000.0   | 0.000    | 0.000   |                    |
| stinU                   |      | - mg/L         | - | mg/L      | -         | -         |           |      | mg/L      | mg/L      | mg/L      | mg/L          |        | mg/L      | mg/L      | mg/L      | mg/L             |       | mg/L      | mg/L      | mg/L      | mg/L      |      | mg/L                   | mg/L                    | mg/L      |      |           |           | ma/L                          |      |           | mg/L    | mg/L    | mg/L    |            | mg/L    | mg/L     | mg/L    | ma/L               |
| Sample<br>Date<br>Units |      | 16-Dec-14      |   | 27-Mar-15 | 30-May-15 | 11-Jul-15 | 05-Oct-15 |      | 25-Jan-16 | 26-Jun-16 | 28-Sep-16 | 30-Oct-16     |        | 27-Mar-17 | 26-Jun-17 | 23-Sep-17 | 04-Dec-17        |       | 24-Mar-18 | 01-Jun-18 | 02-Sep-18 | 15-Oct-18 |      | 25-Mar-19              | 29-Juli-19<br>30-San-19 | 08-Nov-19 |      | 28-Mar-20 | 07-Jun-20 | <u>22-Auy-zv</u><br>12-Oct-20 |      | 27-Mar-21 |         |         |         |            | E       |          | m       | viation            |
| e e                     | 2014 | 4              | 1 | 2015-Q1   | 2015-Q2 3 |           | 4         | 2016 |           |           |           | 4             | ľ      |           |           |           | 2017-Q4 0        | 2018  |           |           |           | 4         | F    | 2019-Q1 2              |                         |           | 2020 |           | 2020-02   |                               |      |           | 2020-Q2 | 2020-Q3 | 2020-Q4 | STATISTICS | Minimum | Mean     | Maximum | Standard Deviation |

## **Groundwater Test Results** M1990-057 LEADVILLE MILL

## Table 2: MW-3 (Northeast)

**Notes:** (1) A "0.000" value denotes NOT DETECTABLE laboratory result. (2) A "blank" cell in the table denotes no data collected.

Leadville Mill-Groundwater

|            | · · · · · · · · · · · · · · · · · · · | ו מו בו בו בו בו בו |                    | ŀ             |               |                             | ŀ           | ŀ                              |                               |                 |             |           |                | ŀ                | ŀ           | ļ                            | ļ             |            | ļ            | ľ         |              |             |              |          | ļ          |              |                      |                        |
|------------|---------------------------------------|---------------------|--------------------|---------------|---------------|-----------------------------|-------------|--------------------------------|-------------------------------|-----------------|-------------|-----------|----------------|------------------|-------------|------------------------------|---------------|------------|--------------|-----------|--------------|-------------|--------------|----------|------------|--------------|----------------------|------------------------|
| Analyte    | Sample<br>Date                        | Units               | Boron (B)          | lron (Fe)     | (d2) γnomi}nA | (sA) <b>zin</b> 9s1A        | (s8) muins8 | Beryllium (Be)<br>(bD) muimbsD | Cadmium (Cd)<br>Chromium (Cr) | Cobalt (Co)     | Cobber (Cn) | Lead (Pb) | (nM) əsənsgnsM | (oM) munəbdyloM  | Nickel (Ni) | Selenium (Se)<br>Silver (Ag) | (IT) muilledT | U) muinarU | (V) muibsnsV | (nZ) əniZ | Mercury (Hg) | Chloride    | Nitrite as N | Flouride | ətstluð    | Nitrate as N | Nitarte Nitrite as N | (NO) əbinsvO           |
| 2016       |                                       |                     |                    |               |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
|            | 28-Sep-16                             | Da/L                | Data not collected | llected       | 0.009         | 0.270 0                     | 0.001 0.0   | 0.005 0.0                      | 0.008 0.004                   | 0.074           | 4 0.085     | 0.550     | 0.000          | 0.015 0          | 0.000 0.0   | 0.004 0.000                  | 00.007        | 7 0.017    | 7 0.290      | 0.000     |              |             |              |          |            |              |                      | 0.00000                |
|            | 30-Oct-16                             |                     |                    |               |               |                             | -           |                                |                               | 33 0 0 25       |             | 0 470     |                |                  |             | 0.002 0.000                  | С             | +          |              | _         |              |             |              |          |            |              |                      |                        |
| 2017       | 2. 50                                 | 1                   |                    |               |               |                             |             |                                |                               |                 |             | 2         |                |                  |             |                              | 5             | -          |              | _         |              |             |              |          |            |              |                      |                        |
| E          | 27-Mar-17                             | mg/L                |                    |               | TSF SNC       | TSF SNOW COVERED:           | RED: NO     | NO ACCESS                      | _                             |                 |             |           | -              | -                |             | _                            |               |            |              |           |              |             |              | _        |            |              |                      |                        |
|            | 26-Jun-17                             |                     |                    |               | 0.010         | 0.240 0                     | 0.000 0.0   | 0.002 0.011                    | 0.003                         | 0.024           | 4 0.079     | 0.360     | 0.000          | 0.012 0          | 0.000 0.0   | 0.003 0.000                  | 0.001         | 1 0.017    | 7 0.230      | 0.000     |              |             |              |          |            |              |                      | 0.00000                |
|            | 23-Sep-17                             |                     |                    |               | 0.007         | _                           | -           | -                              | 0.005                         | -               | -           | 0.570     |                | -                | _           | -                            | Ö             | 2 0.013    | 0            | _         |              |             |              |          |            |              |                      |                        |
| 2017-Q4    | 04-Dec-17                             |                     |                    |               | TSF SNO       | SNOW COVERED:               | NO          | ACCESS                         |                               |                 |             |           |                | $\left  \right $ |             |                              |               |            |              |           |              |             |              |          |            |              |                      | NS                     |
| 2018       |                                       | 00                  |                    | A             |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              | iyde        |              |          |            |              |                      | :00                    |
| 2018-Q1    | 24-Mar-18                             | mg/L                |                    | Eb            | -             | TSF SNOW COVERED: NO ACCESS | RED: NO     | ACCESS                         |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              | odus        |              |          |            |              |                      | 010                    |
| 2018-Q2    | 01-Jun-18                             |                     |                    | :103          | 0.022         | 1.800                       | 0.017 0.0   | 0.041 0.015                    | 0.048 0.048                   | 48 0.270        | 0.770       | 14.000    | 0.000 0        | 0.067 0          | 0.000 0.0   | 0.004 0.000                  | 0.012         | 2 0.066    | 3 2.600      | 0.000     |              | oten        |              |          |            |              |                      | <mark>4</mark> 0.00000 |
| 2018-Q3    | 02-Sep-18                             |                     |                    | 010           | 0.085         | 6.600                       | 0.022 0.0   | 0.035 0.130                    | 130 0.063                     | <b>33 0.560</b> | 0 1.500     | 9.600     | 0.000          | 0.150 0          | 0.000 0.0   | 0.075 0.003                  | o.            |            | 0 4.500      | 0.000     |              | Lou         |              |          |            |              |                      | 0.00000                |
| 2018-Q4    | 15-Oct-18                             |                     |                    | Pro           | 0.000         | 0.180 0                     | 0.000 0.0   | 0.001 0.003                    | 003 0.002                     | 0.019           | 9 0.033     | 0.220     | 0.000 0        | 0.008 0          | 0.000 0.0   | 0.000 0.000                  | 0.001         | 1 0.006    | § 0.120      | 0.000     |              | 40          |              |          |            |              |                      | 0.00000                |
| 2019       |                                       |                     |                    | SW            |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           | Mero         | uoj         |              |          |            |              |                      | MA                     |
| 2019-Q1    | 25-Mar-19                             | mg/L Met            |                    | Cb/           |               | <b>TSF SNOW COVERED:</b>    | RED: NO.    | NO ACCESS                      |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              | 'suc        |              |          |            |              |                      | \OL '                  |
| 2019-Q2    | 29-Jun-19                             | mg/L 🚽              |                    | 8.            | 0.000         | 0.000 0                     | 0.120 0.0   | 0.000 0.000                    | 000.0 000                     | 000.0 00        | 0.005       | 0.004     | 0.015 0        | 0.000 0          | 0.004 0.0   | 0.000 0.000                  | 000.0 00      | 000.0 0    | 0.000        | 0.054     |              | oin/        |              |          |            |              |                      | <b>n</b><br>0.00012    |
| 2019-Q3    | 30-Sep-19                             | mg/L ♥              |                    | 500           | 0.000         | 0.000 0                     | 0.250 0.0   | 0.000 0.006                    | 000.0 000                     | 0.003           | 3 0.031     | 0.039     | 0.180 0        | 0.000 0          | 0.010 0.0   | 0.000 0.000                  | 000.0 00      | 0 0.002    | 2 0.010      | 0.370     |              | <b>⊅</b> 0. |              |          |            |              |                      | 0.00000                |
| 2019-Q4    | 08-Nov-19                             | بع<br>mg/L <b>R</b> |                    | :po           | -             | TSF SNOW COVERED: NO ACCESS | RED: NO     | ACCESS                         |                               |                 |             |           |                |                  |             |                              |               |            |              | 170       |              | 300         |              |          |            |              |                      | oT /                   |
| 2020       |                                       | 2.00                |                    | цţә           |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              | 74        |              | ро          |              |          |            |              |                      | 124                    |
| 2020-Q1    | 28-Mar-20                             | mg/L 2              |                    | W             |               | TSF SNOW COVERED: NO ACCESS | RED: NO.    | ACCESS                         |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              | lt5         |              |          |            |              |                      | 06 :                   |
| 2020-Q2    | 07-Jun-20                             | poy<br>mg/L         |                    |               | 0.000         | 0.031                       | 1.500 0.0   | 0.008 0.003                    | 03 0.034                      | 34 0.024        | 4 0.170     | 0.300     | 4.800 C        | 0.000 0          | 0.062 0.0   | 0.000 0.012                  | 12 0.000      | 0 0.009    | 9 0.060      | 1.500     |              | N           |              |          |            |              |                      | 000000                 |
| 2020-Q3    | 22-Aug-20                             |                     | 0.510 880          | <u>30.000</u> | 0.000         | 0.084 7                     | 7.900 0.0   | 0.053 0.140                    | 140 0.250                     | 50 0.230        | 0 1.100     | 3.500     | 42.000 C       | 0.000 0          | 0.420 0.0   | 0.006 0.094                  | 94 0.006      | 6 0.062    | 2 0.250      | 11.000    | 0.01700      | na          | na           | na       | na         | na           | na                   | et 0.00000             |
|            |                                       |                     | 0.150 0            | 0.000         | 0.000         | 0.000 0                     | 0.057 0.0   | 0.000 0.000                    | 000.0 000                     | 000.0           | 0.004       | 0.002     | 0.016 0        | 0.000 0          |             | 0.000 0.000                  | 000.0 00      | 000.0      | 0.000        | 0.027     | 0.00000      | 0           | 00000.0 00   | 00000.0  | 00 0.13000 | -<br>C       | 0.01600              | 0.00000                |
| 2021       |                                       |                     |                    |               |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
| 2020-Q1    | 27-Mar-21                             | mg/L                |                    |               | TSF SNC       | TSF SNOW COVERED: NO ACCESS | RED: NO     | ACCESS                         |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
| 2020-Q2    |                                       | mg/L                |                    |               |               |                             | -           |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
| 2020-Q3    |                                       | mg/L                |                    | Γ             |               | ╞                           | ╞           | ╞                              | ┞                             |                 |             |           | ╞              | ╞                | ╞           |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
| 2020-Q4    |                                       | mg/L                |                    | Γ             |               |                             |             |                                |                               |                 |             |           |                | ╞                |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
| STATISTICS |                                       |                     |                    |               |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |
| Minimum    | ш                                     | mg/L 0              | 0.150 0            | 0.000         | 0.000         | 0.000 0                     | 0.000 0.0   | 0.000 0.000                    | 000.0 000                     | 000.0 00        | 0.004       | 0.002     | 0.000 0        | 0.000 0          | 0.000 0.0   | 0.000 0.000                  | 000.0 00      | 000.000    | 0.000        | 0.000     |              |             |              |          |            |              |                      | 0.00000                |
| Mean       |                                       | mg/L 0              | 0.330 440          | 40.000        | 0.012         | 0.814 0                     | 0.822 0.0   | 0.013 0.027                    | 0.034                         | 34 0.105        | 5 0.328     | 2.468     | 3.918 0        | 0.023 0          | 0.042 0.0   | 0.008 0.009                  | 900.0 60      | 6 0.030    | 0.716        | 1.079     |              |             |              |          |            |              |                      | 0.0001                 |
| Maximum    | ш                                     |                     | 0.510 880          | 30.000        | 0.085         | 6.600 7                     | 7.900 0.0   | 0.053 0.1                      | 0.140 0.250                   | 50 0.560        | 0 1.500     | 14.000    | 42.000 C       | 0.150 0          | 0.420 0.0   | 0.075 0.094                  | 94 0.036      | 6 0.160    | 0 4.500      | 11.000    |              |             |              |          |            |              |                      | 0.00012                |
| ard D      | Standard Deviation                    | <u>г</u>            | -                  |               | 0.020         | 1.887 2                     | 2.269 0.0   | 0.019 0.0                      | 0.050 0.071                   | 71 0.169        | 9 0.506     | 4.557     | 12.071 0       | 0.044 0          | 0.120 0.0   | 0.021 0.027                  | 27 0.010      | 0 0.047    | 7 1.389      | 3.154     |              |             |              |          |            |              |                      | 0.00003                |
|            |                                       |                     |                    |               |               |                             |             |                                |                               |                 |             |           |                |                  |             |                              |               |            |              |           |              |             |              |          |            |              |                      |                        |

## **Groundwater Test Results** M1990-057 LEADVILLE MILL

# Table 3: TSF-Perched Acquifer

Notes: (1) A "0.000" value denotes NOT DETECTABLE laboratory result. (2) A "blank" cell in the table denotes no data collected.

Figure 1 - Map





Garcia, Reymon — E:/Figure\_06-2\_Leadville Mill Site Specific Location (002rg).dwg — 5/28/2014 3:27 PM

## Figure 2 – Photo, Old Tailings Placement on Upper Level

