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Revenue-Virginius Mine
2022 Environmental Summary

DRMS Permit No. M-2012-032
January 30, 2023

Table of Contents

Site Maps

Map 1 Site Map with Current Boundary and Disturbance

Map 2 Surface water and groundwater sampling locations

Map 3 Underground sampling locations

Attachments

Attachment A – 2022 Lab Reports from Monitoring Activities

Attachment B – Summary Statistics for Groundwater and Surface Water from past 5 quarters

Attachment C – Sampling Field Notes and Equipment Calibration

Attachment D – Inspections: Pond #3, SWMP and SPCC

1 INTRODUCTION

This annual Environmental Summary provides a summary of activities associated with the Division of Reclamation, Mining, and Safety (DRMS) Permit No. M-2012-032, and Colorado Water Quality Control Division (WQCD) Colorado Discharge Permit System (CDPS) permits for Industrial Wastewater Discharge (CO-0000003) and Stormwater Discharge (COR-040289) for 2022. The summary also includes a discussion of relevant activities that occurred at the Mine throughout the past twelve months. Supporting documentation related to monitoring requirements required by Hardrock Rule 1.15 is provided in the attachments. This summary is being submitted as an attachment to OSMI's annual reclamation report, which is due February 5th of each year on the anniversary of OSMI's permit.

2 ACTIVITIES in 2022

The following sections provide an update of activities in 2022, including operations, permitting activities, and other site activities.

2.1 Operational Update

The Revenue-Virginius Mine (Mine) saw limited production in the first quarter of 2022. 488 tons of ore were brought to the mill before a layoff that ended production for the year. No mining or milling has occurred since February. No work has been performed on surface infrastructure such as the reagent room since 2021.

On July 7th the mine was placed in receivership due to financial hardship. Alliance Management is the court ordered receiver and the receivership is being funded by principal debtor Mercuria. Alliance Management actively sought a buyer for the property during the remainder of 2022. Due to the lack of mining activity on site, the mine submitted paperwork to enter Temporary Cessation on August 16th, 2022. Despite the lack of mining activity, environmental compliance activities continued. The mine continued all required monitoring and completed Amendment 2 during 2022.

2.2 Incidents

There were no loss of containment incidents in 2022.

2.3 Permitting Activities

A summary of permitting activities that occurred in 2022 is provided in the following section.

2.3.1 Amendment 02 (AM-02)

Amendment 02 to OSMI's Permit M-2012-032 was approved by the DRMS on October 12, 2022. The amendment application was submitted in December of 2021 in response to a request by the Mined Land Reclamation Board to settle a notice of violation resulting from disturbance outside of the affected lands boundary. The scope of Amendment 02 was limited to expanding the affected lands boundary in Governor Basin to accommodate disturbance

associated with construction of a refuge chamber and secondary escapeway. The amendment resulted in an additional 1.16 acres of land to OSMI's affected lands boundary.

In addition to the proposed affected lands boundary modification in Governor Basin, permit documents were updated, where applicable, to incorporate changes made through various Technical Revisions (TRs) that have been submitted and approved since the permit was last amended in 2015. After 2 rounds of adequacy review comments Amendment 2 was approved.

2.3.2 Temporary Cessation (TC)

OSMI notified the Division of Reclamation Mining and Safety of its intent to put the Revenue Mine into TC on August 16, 2022 in accordance with Rule 1.13.5. All reagents were removed from site and tailings were spread in the Atlas Tailings Storage Facility. TC was accepted by the state on January 5 2023.

2.3.3 Technical Revision 14 (TR-14)

No work was done on TR-14 during 2022. TR-14 was submitted in and partially completed in 2021. This TR provided updates to the Environmental Protection Facility (EPF) certification plan for the new Reagent Room portion of the mill filter building extension (permitted under TR-09). These updates included the construction, operation, and reclamation measures associated with the Reagent Room EPF. On July 2, 2021, DRMS conditionally approved TR-14, which allowed construction of the Reagent Room to begin. Construction of the Reagent Room is in progress and is expected to be completed when the mine resumes operations. Final certification of the new Reagent Room is contingent upon final inspections by DRMS.

2.3.4 Technical Revision 15 (TR-15)

No work has been done on TR-15 during 2022. TR-15 was submitted in June 2021. This revision sought recertification of the mill. Certification of the mill was originally granted by DRMS on January 11, 2016. Updates to the milling process as described in TR-09 were approved in March 2017. Supporting information for the mill recertification included mill design discussion; mill construction, modification, and test operations; water and slurry handling systems and environmental protections; chemical handling and containment systems; tailing chemistry; and water quality at the tailings embankment. TR-15 is currently in progress and will be completed when the mine resumes operations.

2.3.5 Technical Revision 16 (TR-16)

No work was completed in 2022 in relation to TR-16. TR-16 was submitted and partially constructed in 2021. This revision requested approval to construct two equipment storage warehouses and a security building at the mine entrance, place temporary lineout buildings on the surface, construct a vehicle washdown area near the mechanic shop, and place temporary generators and a 10,000-gallon fuel tank on the surface. TR-16 is approved, and

the infrastructure permitted by TR-16 was partially constructed in 2021. This TR will be completed when the mine resumes operations.

2.4 Other site activities included

- Atlas Tailings Storage Facility received final certification on July 6, 2022. Final survey for as-builts was performed and submitted to DRMS in 2022. A DRMS inspection on February 2nd identified a problem for corrective action when tailings were noted in the TSF prior to final certification. The tailings were on a temporary liner, but the mine submitted as built drawings and the issue was resolved.
- DRMS completed inspections February 2nd and August 25th. The February 2nd inspection found tailings in the Atlas TSF. As-built documentation resolved the issue. The August 25th inspection found a small amount of tailings in a drainage ditch and the issue was resolved by removing the tailings.
- Slight modifications to the mine water treatment system were made in the summer of 2022 to address an exceedance of potentially dissolved lead in the discharge during high flow periods. Modifications included the introduction of a permeable silt curtain in Mine Water Pond #1 to capture sediment, and the abandonment of sand filters in Mine Water Pond #1 and Mine Water Pond #3 due to
- The SPCC plan was updated in May 2022 and submitted to DRMS as Attachment 1 to Amendment 02.
- The Storm Water Management Plan (SWMP) was updated in August 2022 and submitted to DRMS as Attachment 1 to Amendment 02.

3 WATER MONITORING and REPORTING

Water quality samples, field data, flow, and observations were collected by Solid Solutions Geosciences of Ridgway, Colorado at the beginning of 2022. However, the mine experienced economic hardship during Q1 of 2022 and brought water quality samples, field data, flow, and observation collection inhouse.

Sample location maps are shown on Maps 2 and 3 and laboratory data reports are presented in Attachment A. Attachment B presents summary statistics for Groundwater and Surface Water for the past 5 quarters. Sampling notes and equipment calibration records are included in Attachment C.

3.1 Groundwater

Groundwater monitoring continued at six locations, GW-1A, GW-1B, GW-2A, GW-2B, GW-3R, and GW-3B. Groundwater was monitored on a quarterly basis throughout 2022.

3.1.1 Groundwater Quality

2022 groundwater results were within permit limits. Results from 2022 sampling reflect historical results. In general, zinc and cadmium concentrations are higher in shallow wells and concentrations are higher in well GW-2A and GW-2B than in GW-3A and GW- 3R (near the passive treatment system). The trend suggests an upgradient source of cadmium and zinc in groundwater with attenuation through sorption or dilution as groundwater moves downgradient.

3.2 Industrial Wastewater/ Surface Water

Sampling at OF002A occurred per CDPS permit CO-0000003 through 2022 and the mine received a wastewater treatment system inspection in September of 2022. Minor recommendations were made which include noting the time the pH samples are collected and moving a staff guage.

The treatment system experienced two exceedances on the 30-day average of potentially dissolved lead during May and June. The permit limit for 30-day potentially dissolved lead is 2.6 ug/L and the mine reported an average of 3.5 ug/L during May and 3.6 ug/L during June. This was the first high flow season for the system and it was unknown how the system would perform during peak flows. After investigation the mine believes that the exceedance was due to short retention time in the sulfate reducing bioreactor because of high flows. To avoid an exceedance this coming year, the mine is working with a consulting firm to improve the passive treatment system or connect ex-situ treatment systems. The mine has contracted the same consulting firm that designed the system to improve it.

There was no discharge at Outfall 001A (OF001A) in 2021.

Discharge monitoring reports under CDPS permit CO-0000003 for Outfall-001A and Outfall-002A were submitted to the WQCD and are available on NetDMR through the EPA Central Data Exchange. Copies of laboratory data from Outfall 002A monitoring are provided in Attachment A. Stormwater DMRs, submitted quarterly under COR-040289, indicate no discharge for 2022. Field notes from outfall sampling may be found in Appendix C.

Surface water is monitored voluntarily at various locations in the drainage upstream and downstream of the mine site. Surface water quality samples are collected at SW-1, SW-2, SW-3, SW-4, SW-15, SW-16, SW-17, SW-21. Map 2 shows the surface water sampling locations.

3.2.1 Surface Water Quality

Results at all surface water monitoring locations and the outfall were within historic norms during 2022 with the exception of exceedances at OF002A for potentially dissolved lead in May and June due to high flows and potentially dissolved zinc in November due to the turbidity curtains becoming unanchored and disturbing sediment. Summary statistics for sampled stations

are found in Attachment B.

In general, surface water pH is neutral and stable, and hardness fluctuates seasonally, with lows during high flows and highs in the winter months. Likewise, pH, hardness and sulfate fluctuate seasonally. These seasonal fluctuations are the mark of low hardness snowmelt diluting surface water during spring runoff. Mine water, seeps, and groundwater contributions to surface water all have higher hardness and sulfate concentrations than surface water.

Results from surface water samples collected in Sneffels Creek both upstream and downstream of the mine discharge continue to show exceedances of ambient water quality standards for cadmium, lead and zinc.

3.2.2 Surface Water Flow

OSMI continues to gather flow data in Sneffels creek during surface water sampling events. Although gathering flow in an ever-changing channel has its challenges. OSMI will continue to evaluate the benefits of installing a permanent flow and temperature gauge in Sneffels Creek near the main entrance to the mine.

3.3 Mine Water

Mine water is water that is found within the mine as well as the water exiting the mine at the portal that is treated in the five-stage passive mine water treatment system. Mine water is sampled at various locations within the mine (i.e., UG-2, UG-4, UG-5, UG-7, UG-8, UG-9, UG-10). Stations UG-2, UG-5, and UG-8 are sampled quarterly. UG-7, UG-10, UG-4, and UG-9 are optional sampling locations and, if sampled, are sampled annually.

3.3.1 Mine Water Quality

Mine water quality for key constituents is presented in the summary tables provided in Attachment B. Mine pH is consistently near neutral. Hardness and sulfate fluctuate seasonally with minimums occurring during the spring runoff and both generally occur at higher concentrations than surface water. Cadmium, lead, and zinc remained within historic norms despite increased activity underground in 2022.

3.3.2 Mine Water Flow

Flow at UG-5 (the portal) ranged from 0.511 cubic feet per second (cfs) in March to 1.79 cfs in September. Peak flows occur in the summer months in response to snow melt with low flows occurring in the winter and early spring. Flow from the portal also fluctuates with the seasonal snow melt and is generally an order of magnitude lower than that observed in the creek.

4 INSPECTIONS

Routine inspections are performed in accordance with various operating procedures and plans as summarized below. Inspection notes are recorded in a Fulcrum software database, copies of which are provided in Attachment D.

4.1 Stormwater

Inspections of stormwater collection systems are required on a semi-annual basis under CDPHE permit COR-040289 and quarterly under the DRMS permit M-2012-032, as well as following major storm events. The Stormwater Management Plan (SWMP) was updated in August 2022 to reflect changes in stormwater management as a result of construction of the five-stage passive mine water treatment system. The annual stormwater report was submitted to the WQCD by February 15, 2022 as required by the permit.

4.2 SPCC

SPCC inspections were performed on a monthly basis during 2022. The SPCC Plan was updated in May 2022 to reflect site conditions and submitted with Amendment 2.

4.3 DRMS Inspections

DRMS conducted the following inspections.

- February 1, 2022, which identified the problem of mill tailings being placed in the Atlas TSF before final certification of the TSF. The tailings were placed on a temporary liner, but the mine did not have permission to place tailings in this TSF prior to certification. When the snow melted, as built drawings were sent to the DRMS to resolve the situation.
- August 25, 202, which served as a quarterly inspection as part of DRM's normal monitoring program as well as an inspection for temporary cessation. All reagents were being removed at the time of the inspection. The inspection did find tailing in a stormwater ditch around the Atlas TSF. These tailing were removed and documentation was sent to the division.

5 WASTE ROCK and TAILINGS MANAGEMENT

No waste rock was produced in 2022. No waste rock was removed from underground and placed on the surface of the mine within the permitted boundary. All surface stockpiles were created in 2021 while the mine was moving into production. In 2021 the waste rock was subjected to synthetic precipitation leachate procedure (SPLP) with results within historic norms and below regulatory limits. SPLP data collected on current waste rock piles can be found in the 2021 Annual Environmental Summary.

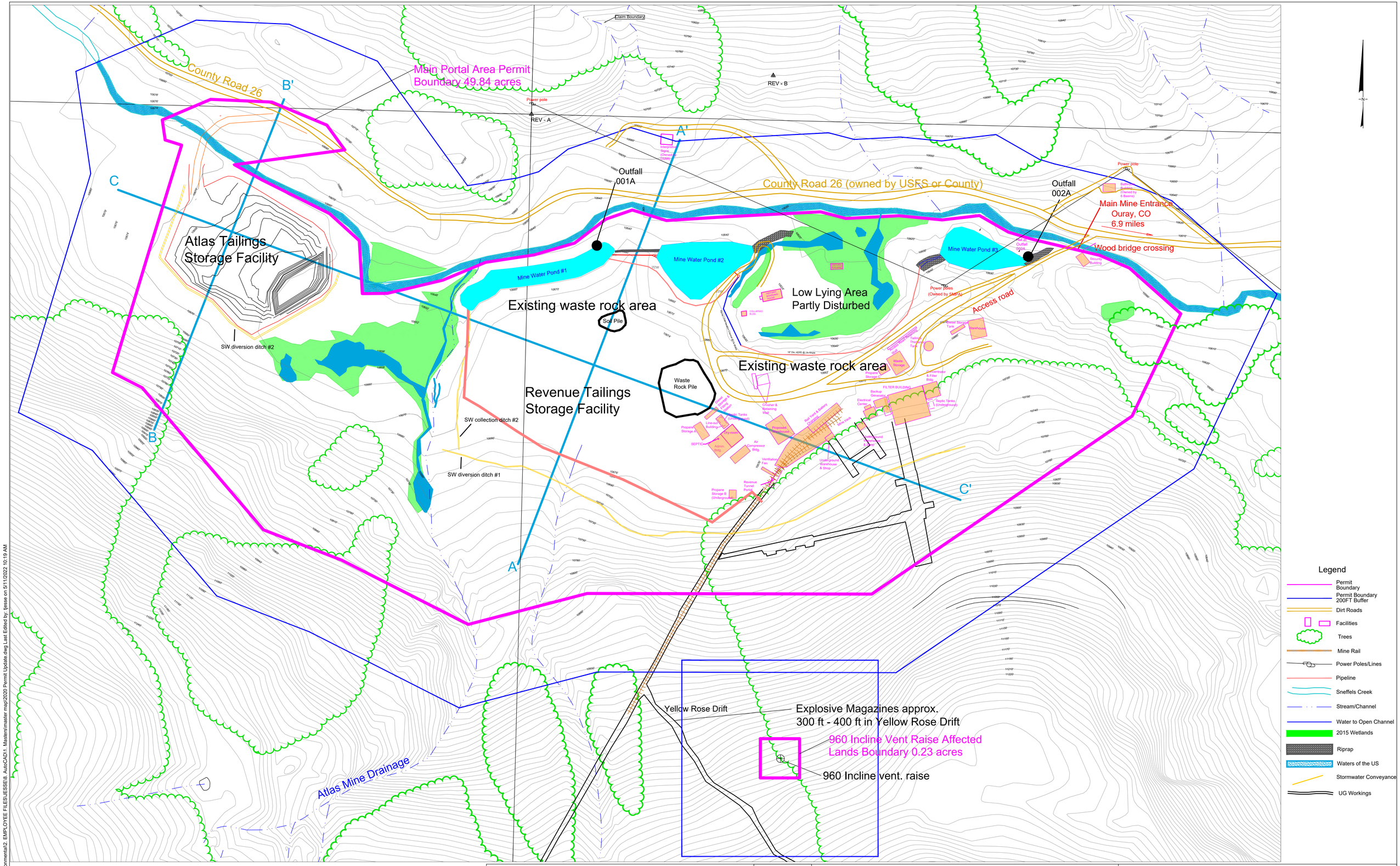
Approximately 480 tons of tailings were produced during milling operations in 2022. SPLP and Acid Based Accounting (ABA) tests were performed on the tailings and all results came back below regulatory limits. Tailings were placed on temporary, lined storage areas in the Atlas Tailings Storage Facility until approval from DRMS was received for final placement. The tails were spread, but no compaction was done as there were not enough tailings to complete an entire lift.

6 UPCOMING EFFORTS and RECOMMENDATIONS

As of January 30, 2023, the mine and mill remain in Temporary Cessation.

- Investigate improvements to the passive water treatment system.
- Installation of groundwater wells GW-5A and GW-5B to monitor groundwater down gradient of the mine and mill.
- Construction of stormwater pond near entrance to mine site.
- Installation of continuous flow monitoring device at UG-5 and temperature probe in Sneffels Creek below OF002A.
- Complete construction on second warehouse and equipment wash bay as authorized by TR-16.
- Complete certification of the mill and reagent room.
- Consider installation of continuous flow monitoring device at UG-5.

Maps



Legend

- Permit Boundary
- Permit Boundary 200FT Buffer
- Dirt Roads
- Facilities
- Trees
- Mine Rail
- Power Poles/Lines
- Pipeline
- Sneffels Creek
- Stream/Channel
- Water to Open Channel
- 2015 Wetlands
- Riprap
- Waters of the US
- Stormwater Conveyance
- UG Workings

NOTE:
1. Topography from site specific survey in March 2014

REVISIONS				
NO.	DESCRIPTION	DATE	BY	APPROVED BY:
0	Amendment 2	12/06/2021	SG/KN	
1	Amendment 2 Rev	4/12/2022	TJ	Todd Jesse

DECEMBER 2021

0 100 200
SCALE IN FEET

Ouray Silver Mines
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REVENUE - VIRGINIUS MINE

Map 1: 2022 DRMS Annual Report

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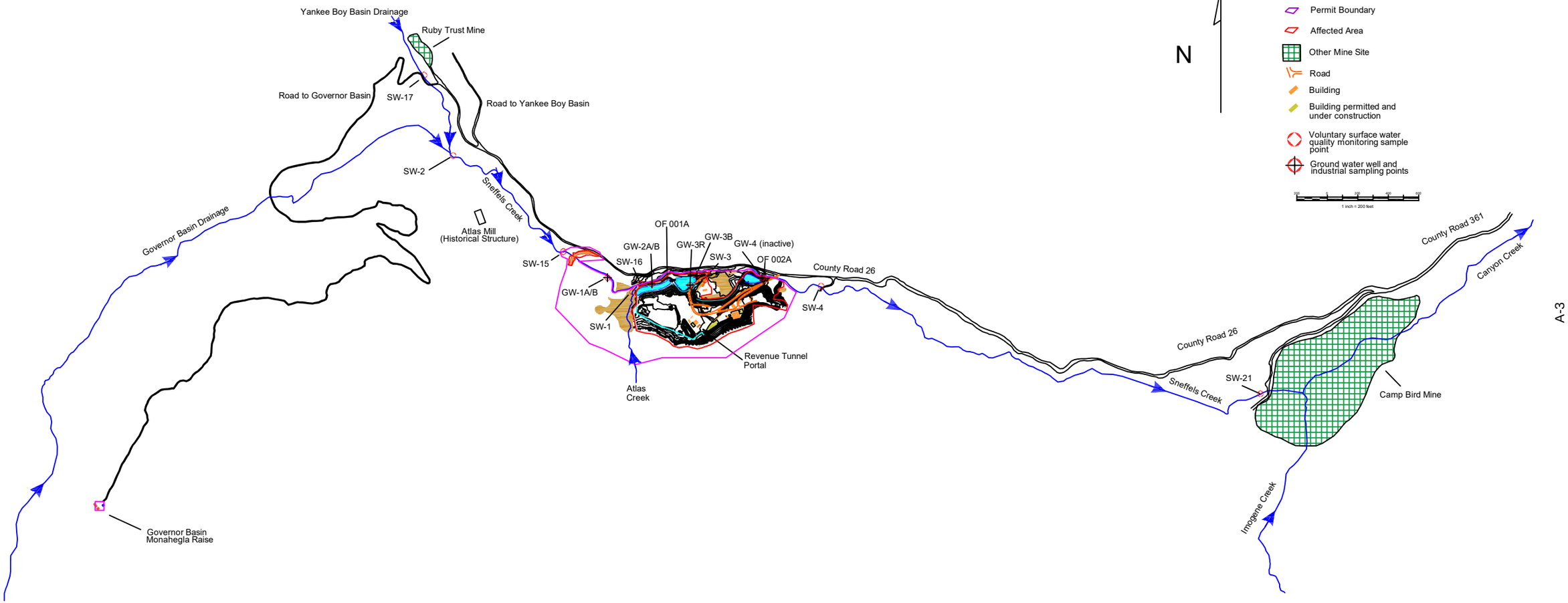

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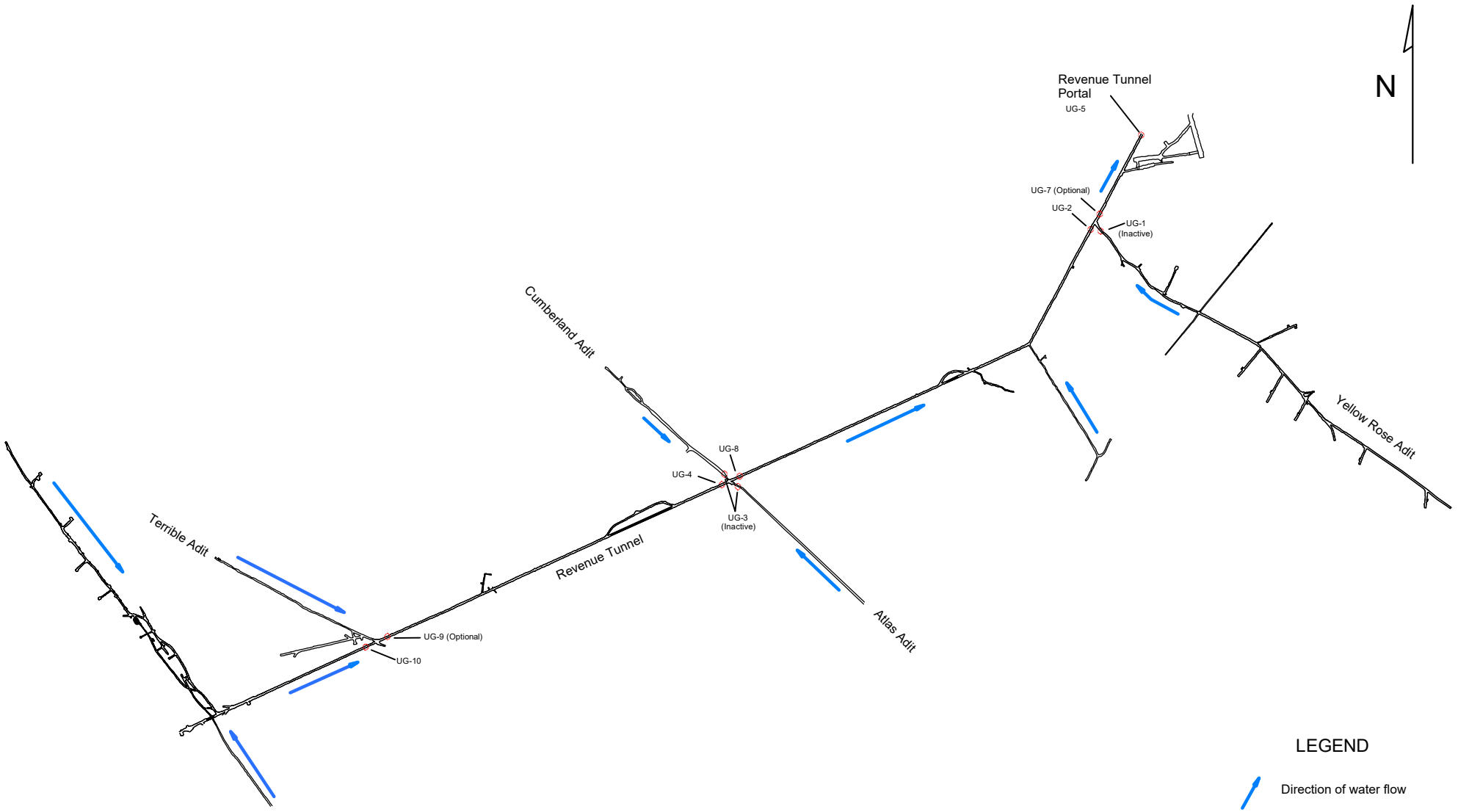
REVENUE - VIRGINIUS MINE

2021 DRMS Annul Report 112-D1 Surface Sampling Map 2

Locations of sampling stations for surface and ground water quality monitoring

January 2022

PO Box 564
Ouray CO 81427



500 0 1000 2000

1 inch = 600 feet

PO Box 564
Ouray CO 81427

January 2023

REVENUE - VIRGINIUS MINE

2022 DRMS Annual Report 112d-1 Underground Map

Locations of sampling stations for water quality monitoring underground