

# MINERALS PROGRAM INSPECTION REPORT PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

	MINE/PROSPECTING ID#:	MINERAL:	COUNTY:
	M-1977-493	Molybdenum	Lake, Summit
INSPECTION TYPE:		INSP. DATE:	INSP. TIME:
		January 19, 2024	10:00
	<b>OPERATOR REPRESENTATIVE:</b>	TYPE OF OPERATION:	
	Alex Ungers	112d-3 - Designated Mining Operation	
	BOND CALCULATION TYPE:	BOND AMOUNT:	
	None	\$91,011,850.00	
DATE OF COMPLAINT: POST INSP. CONTACTS:		JOINT INSP. AGENCY:	
	None	None	
INSPECTOR'S SIGNATURE:		SIGNATURE DATE:	
TOO		January 30, 2024	
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	INSPE	M-1977-493 WEATHER: Cloudy OPERATOR REPRESENTATIVE: Alex Ungers BOND CALCULATION TYPE: None POST INSP. CONTACTS: None	M-1977-493 Molybdenum   WEATHER: Cloudy INSP. DATE:   January 19, 2024 January 19, 2024   OPERATOR REPRESENTATIVE: TYPE OF OPERA'   Alex Ungers 112d-3 - Designated   BOND CALCULATION TYPE: BOND AMOUNT:   None \$91,011,850.00   POST INSP. CONTACTS: JOINT INSP. AGE   None None

## **GENERAL INSPECTION TOPICS**

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS <u>N</u>	(FN) FINANCIAL WARRANTY <u>N</u>	(RD) ROADS <u>Y</u>
(HB) HYDROLOGIC BALANCE <u>Y</u>	(BG) BACKFILL & GRADING <u>N</u>	(EX) EXPLOSIVES <u>N</u>
(PW) PROCESSING WASTE/TAILING <u>N</u>	(SF) PROCESSING FACILITIES <u>N</u>	(TS) TOPSOIL <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>N</u>	(RV) REVEGETATION <u>N</u>
(SM) SIGNS AND MARKERS <u>N</u>	(SP) STORM WATER MGT PLAN <u>N</u>	(RS) RECL PLAN/COMP N
(ES) OVERBURDEN/DEV. WASTE <u>N</u>	(SC) EROSION/SEDIMENTATION <u>N</u>	(ST) STIPULATIONS <u>N</u>
(AT) ACID OR TOXIC MATERIALS <u>Y</u>	(OD) OFF-SITE DAMAGE <u>N</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

# **OBSERVATIONS**

This inspection was conducted as part of the Colorado Division of Reclamation, Mining, and Safety (Division) normal monitoring program. Climax Mine is a 112d-3 Molybdenum mine and milling operation located in Summit, Eagle, and Lake Counties and is accessible from CO State Highway 91. The site consists of 14,000 permitted acres, of which 8,000 acres have been affected. The Division currently holds \$91,011,850.00 in Financial Warranty for the site. Alex Ungers represented Climax Molybdenum Company and accompanied the Division on the inspection. The weather was overcast during the inspection with good visibility. A series of winter storms moved through the area in the days leading up to the inspection. The mine site was snow covered under 2-3 feet of standing snow.

The following areas were inspected: the

- Sludge Densification Plant (SDP)
- SDP Lime Station
- 5 Dam Seepwater Collection System Construction
- Property Discharge Water Treatment Plant (PDWTP)
- Molybdenum Removal Water Treatment Plant (MRWTP).

## Sludge Densification Plant

The SDP was not active at the time of the inspection. Crews were performing maintenance on the plant. When operating, the SDP provides first stage metals treatment for a significant portion of the mine's affected water. The plant creates a sludge that is deposited in a sludge cell on the Tenmile tailing storage facilities. The sludge cell was snow covered and there was no observed discharge into the cell during the inspection. When operating the plant utilizes lime and flocculant as reagents in the water treatment process. The interior of the facility was in good condition and well kept (Photo 1). Observed materials were properly stored. Reactor tanks used in the treatment process were empty at the time of the inspection (Photo 2). Tanks appear to be in good condition. Floor sumps and troughs that provide secondary containment were free of obstructions and appear to be in proper condition. The clarifier was not operational but was holding water. No problems were noted.

### **SDP** Lime Station

The SDP Lime Station was not active at the time of the inspection. When active the facility stores and mixes large quantities of hydrated lime for water treatment at the adjacent SDP. Lime is fed from the silos to create a slurry that is utilized in the SDP. The interior of the facility was in good condition (Photo 3). Residual dried lime is present throughout the building. Floor sumps and troughs that provide secondary containment were free of obstructions and appear to be in proper condition (Photo 4). All materials in the SDP Lime Station were properly stored and in good condition. A backup generator is located within the SDP Lime Station which appears in good working order (Photo 5) and there were no signs of spills or leaks around the equipment. No problems were noted.

### 5 Dam Seepwater Collection System

Construction continues on the 5 Dam Seepwater Collection System, approved under TR-36. The project is delayed due to difficulty procuring a transformer. Work has also been slowed by recent inclement weather. The Operator is working with their contractor to complete items that can be constructed in winter conditions before the transformer arrives. Contractor crews are currently working on the 72" RCP Wet Well below the Secondary Seepage Pump Station (Photo 6). The completed work appears to be consistent with the approved designs and

no issues were noted within the construction area.

#### Property Discharge Water Treatment Plant

The PDWTP was operational at the time of the inspection. The PDWTP is located below 5 Dam and is intended to remove metals such as manganese, iron, copper, and zinc. The plant discharges to Tenmile Creek and provides final treatment before affected water leaves the property. The facilities were clean and well kept. Secondary containment is adequate and floor drains/sumps appear free of obstruction. The treatment process utilizes lime, flocculant, and sulfuric acid as reagent chemicals. Reagent lines and containers were clearly labeled. A lime storage area is located on the exterior of the building and can be seen in Photo 7. The lime is turned into a slurry and mixed with affected water in reactor tanks to raise the pH. The Slurry and Reactor Tanks are in good condition (Photo 8). Solids from the PDWTP are transported via a cement truck to the sludge cells. The filter press in the facility is not being utilized. Once the water leaves the reactor tanks it enters clarifiers and is dosed with flocculant. The clarifiers were in good working conditions and operating at the time of the inspection. Adjacent to the clarifiers is the Filter Building which houses a series of sand filters. Filter tanks appear in good condition. Sulfuric acid is also used in this facility to lower the pH before water is discharged. The sulfuric acid storage is isolated from the rest of the plant and located in an epoxy coated containment area (Photo 9). No spills or other problems were noted within the PDWTP during the inspection.

#### Molybdenum Removal Water Treatment Plant

Construction continues on the new MRWTP building approved under TR-34. This is a supplementary process to Climax's PDWTP. The exterior walls of the steel structure now have siding and a crane is on site to continue work on the thickener. Once online, raw water will first go to the Moly building before being sent to the PDMWTP. The building is slated to be online in the first quarter of 2025. Construction progress can be seen in Photo 7.

All inspected areas were in excellent condition at the time of the inspection. In general, the site exhibits excellent housekeeping. Access roads throughout the site were plowed and well maintained. No problems or possible violations were noted. In general, the site exhibits excellent housekeeping.

All responses to this report should be directed to Todd Jesse at the Colorado Division of Reclamation, Mining, and Safety at Room 215, 1001 East 62<sup>nd</sup> Ave. Denver, CO 80216. Direct contact can be made at the Division's Grand Junction Field Office, by phone at 720-688-0626 or by email at todd.jesse@state.co.us

#### PERMIT #: M-1977-493 INSPECTOR'S INITIALS: TJ1 INSPECTION DATE: January 19, 2024



# **PHOTOGRAPHS**

Photo 1 – View to the east showing the interior of the SDP with tanks, pumps, and other equipment. The interior of the facility is clean and orderly.



Photo 2 - View to the south of empty tank in the SDP. The facility is not active for maintenance.



Photo 3 – View to the north showing the interior of the SDP Lime Station. The facility is currently not operational for maintenance.



Photo 4 – View to the east of troughs and sumps in the SDP Lime Station.



Photo 5 – View to the South of backup generator in the SDP Lime Station.



Photo 6 - View to the east of progress at 5 Dam Seepwater Collection System. Excavator is packing material around the well.



Photo 7 – View to the north of PDWTP. Lime storage can be seen in the foreground. Siding can be seen on the MRWTP in the background along with a crane that is constructing the thickener.



Photo 8 - View to the south of Slurry and Reactor Tanks in PDWTP.



Photo 9 – View to the west of sulfuric acid storage in Filter Building of PDWTP.

#### **Inspection Contact Address**

Alex Ungers Climax Molybdenum Company Highway 91, Fremont Pass Climax, CO 80429

CC:

Eric Detmer, Climax Molybdenum Company Travis Marshall, Senior Environmental Protection Specialist, DRMS Dustin Czapla, DRMS Lucas West, DRMS Amy Yedell, DRMS