




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 NAME: Climax Mine	MINE/PROSPECTING ID#: M-1977-493	MINERAL: Molybdenum	COUNTY: Lake, Summit
INSPECTION TYPE: Monitoring	INSPECTOR(S): Lucas West	INSP. DATE: November 15, 2021	INSP. TIME: 09:41
OPERATOR: Climax Molybdenum Company	OPERATOR REPRESENTATIVE: Diana Kelts	TYPE OF OPERATION: 112d-3 - Designated Mining Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$91,011,850.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: November 23, 2021	

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>N</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-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(ST) STIPULATIONS----- <u>Y</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 normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety. Climax is a 112d-3 Molybdenum mining and milling operation located primarily in Summit County. In addition to the Inspector listed on page one of this report Eric Detmer of Climax accompanied the inspection and represented the Operator. The site consist of 14,000 permitted acres with approximately 8,000 acres of affected lands. The site is bisected by Colorado State Highway 91 and public access is controlled by a guard station at the main gates. The Division currently holds \$91,011,850.00 in Financial Warranty for the site. Twelve Photos accompany this report to illustrate the current site conditions.

This inspection was focused on the following areas:

- Sludge Densification Plant (SDP)
- Property Discharge Water Treatment Plant (PDWTP)

SDP

The Sludge Densification Plant (SDP) is a 2 part facility consisting of a lime storage and mixing facility, and the treatment facility. Both facilities are located adjacent to the Tenmile Tailings Storage Facility (TSF). The lime storage and mixing facility is the ancillary facility used for storing large quantities of hydrated lime, where it is mixed with makeup water and fed to the SDP to be used in the treatment facilities. The exterior of the facility can be seen in Photo One. The interior of the lime storage building is in excellent condition, neat orderly and well kept. The interior can be seen in Photos Two and Three. Lime is fed from the silos to the holding tanks, and on to the mixing tanks where a slurry is created. The floor of the building is equipped with in floor troughs and sumps to contain any spilled material generated from operations. An example of the troughs can be seen in Photo Four. Greater secondary containment is achieved by way of gravitational flow into the Tenmile TSF. All materials stored within the facility are in good condition.

The lime slurry is directed to the SDP, where it is mixed with seepage water in a series of neutralization tanks. The neutralization tanks are large steel tanks set on concrete foundations with agitators and pumps to lower the pH. The tanks were operating at the time of inspection, and all tanks appeared to be in excellent condition. An example of the tanks can be seen in Photo Five. Once the target pH is achieved a polymer flocculent is added to assist in metals precipitation and the slurry pumped to the clarifier. The clarifier, seen in Photo Six, was operating at the time of the inspection and in excellent condition. Material that is skimmed from the clarifier is discharged to the sludge cell, seen in Photo Seven, is located within the footprint of the Tenmile TSF. Material was not actively being discharged at the time of the inspection.

Within the SDP several locations are used for fuel and oil storage, as well as containing a backup generator station. All fuels and oils are stored properly with secondary containment, and the generator set is in good working condition. Like the lime storage facility, secondary containment of the SDP is achieved by way of a series of troughs and sumps. Additionally, greater secondary containment is achieved by its proximity to the Tenmile TSF meaning that any catastrophic failure would report directly to TSF. Throughout the SDP, the facility is well kept, clean, neat and organized.

PDWTP

The Property Discharge Water Treatment Plant is located near the most down gradient area of the permit area and houses the final water treatment facility prior to discharge. Similar to the SDP, the facility contains a lime storage area used for pH adjustment during water treatment operations. The lime silo can be seen in Photo Eight and is in excellent condition. The interior of the PDWTP contains several tanks where lime is mixed creating a slurry, mixed with process water, has polymer added for precipitation, and sent to the clarifiers for polishing prior to discharge. All tanks, reactors and mixing facilities are in excellent condition, the main facility is very well kept, clean neat and organized. The main facility has a series of troughs leading to main sump for secondary containment. A view of the troughs and tanks can be seen in Photo Nine. After water runs through the reactors and undergoes pH adjustment it is sent to the primary and secondary clarifiers. The primary clarifier was observed was operating at the time of the inspection.

Connected by an underground man-way, the filter building is located adjacent to the clarifier tanks. The filter building is in good condition and contains various chemicals used during the water treatment process. Most notable is sulfuric acid, used for pH adjustment. The sulfuric acid injection station can be seen in Photo Ten. Photo Eleven shows the sulfuric acid storage area which is its own separate room equipped with sump, spill kits and readily accessible PPE. The tank and sump are in excellent condition. Located just outside the filter building is the sulfuric acid loading station. The loading station is equipped with secondary containment for possible spills that may happen during the unloading process. The station has been cleared of snow and is good operating condition. It can be seen in Photo Twelve.

All inspected areas were in excellent condition at the time of the inspection, no problems or possible violations were noted. All responses to this report should be directed to Lucas West at the Colorado Division of Reclamation, Mining and Safety at 1313 Sherman Street, Room 215 Denver, CO 80203. Direct contact can be made at the Division's Grand Junction Field office, by phone at 303-866-3567 Ext. 8187 or by email at lucas.west@state.co.us.

Inspection Contact Address

Diana Kelts
Climax Molybdenum Company
Highway 91, Fremont Pass
Climax, CO 80429

CC: Travis Marshall, Senior Environmental Protection Specialist

PHOTOGRAPHS

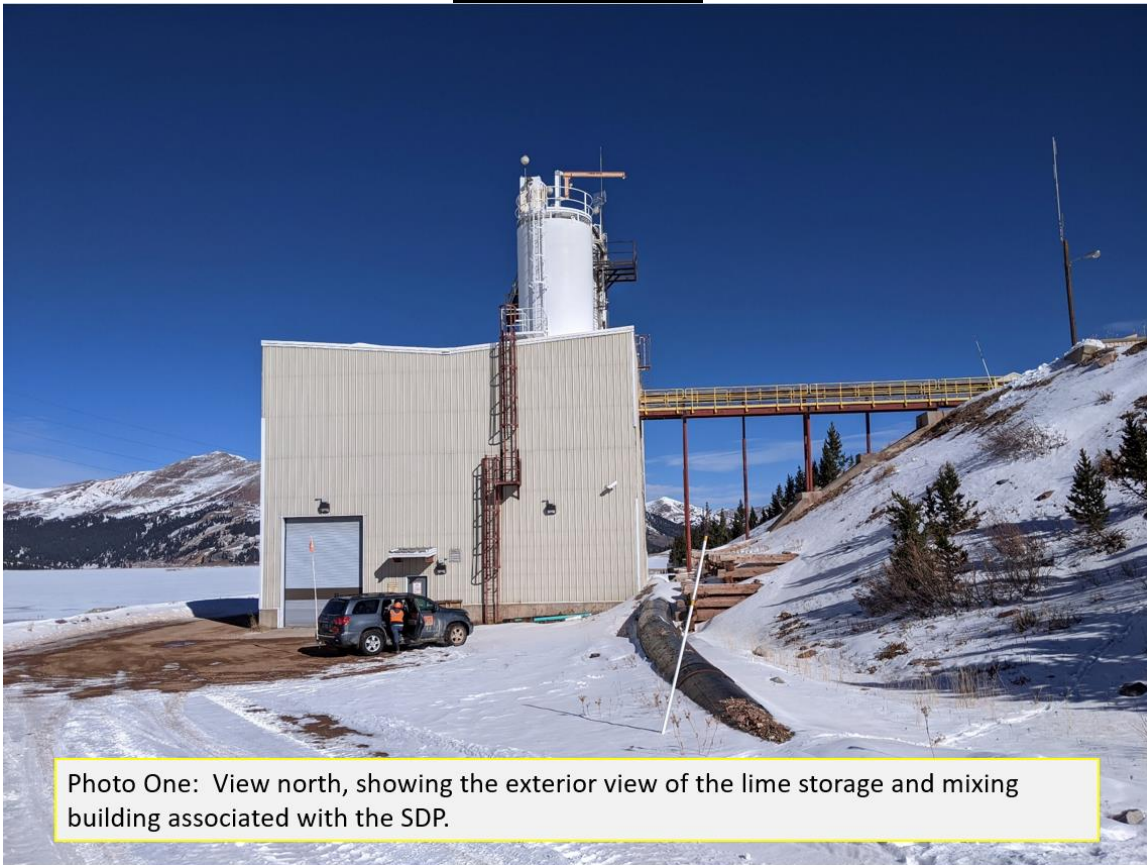


Photo One: View north, showing the exterior view of the lime storage and mixing building associated with the SDP.

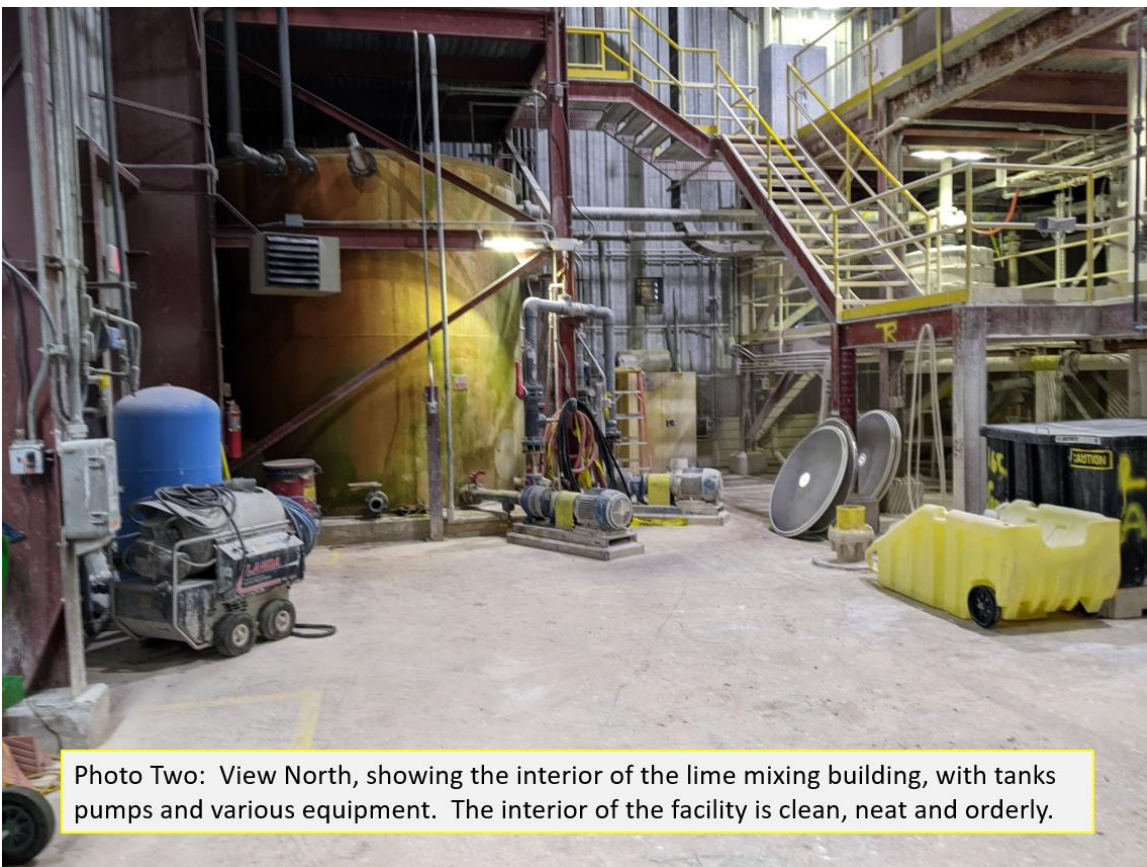


Photo Two: View North, showing the interior of the lime mixing building, with tanks pumps and various equipment. The interior of the facility is clean, neat and orderly.

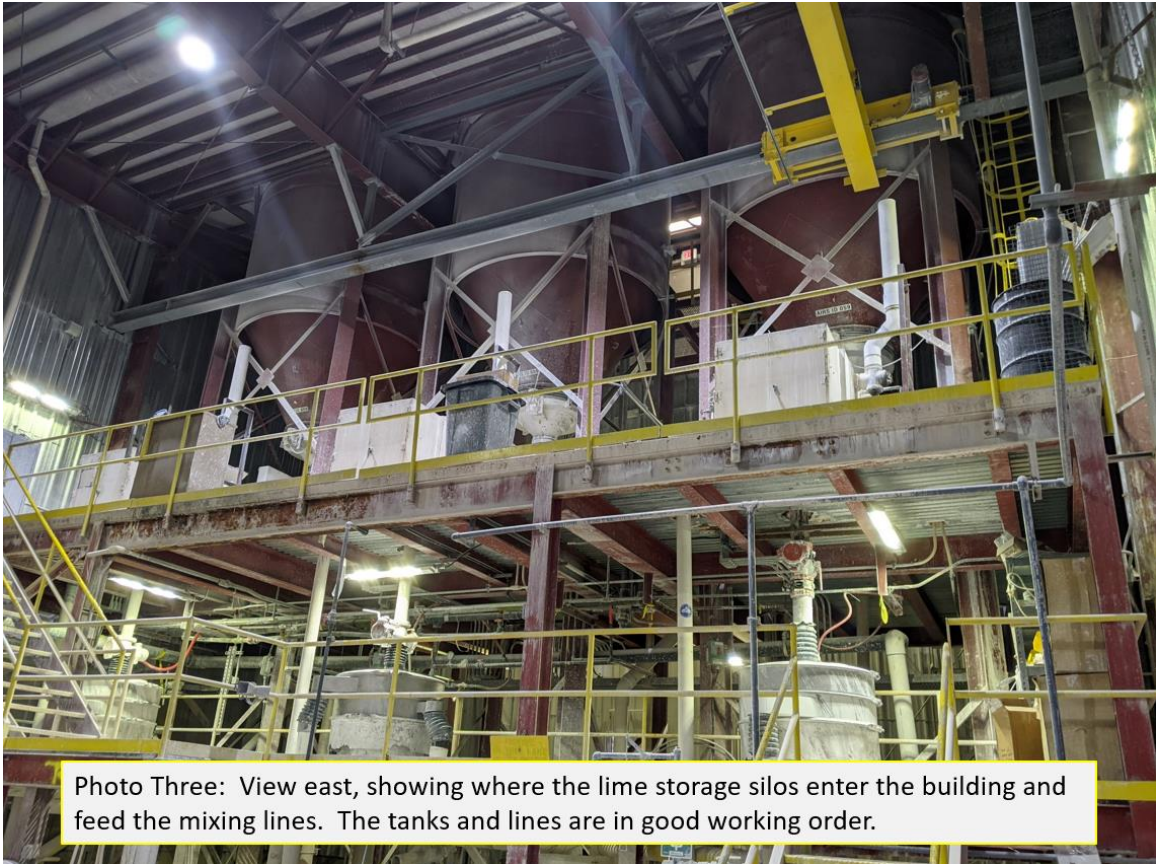




Photo Five: View southeast showing one of the reactor tanks within the SDP facility. The reactor tanks is where the seepage water is mixed with lime slurry for pH adjustment before heading to the clarifier.



Photo Six: View south showing the primary clarifier tank located adjacent to the SDP.

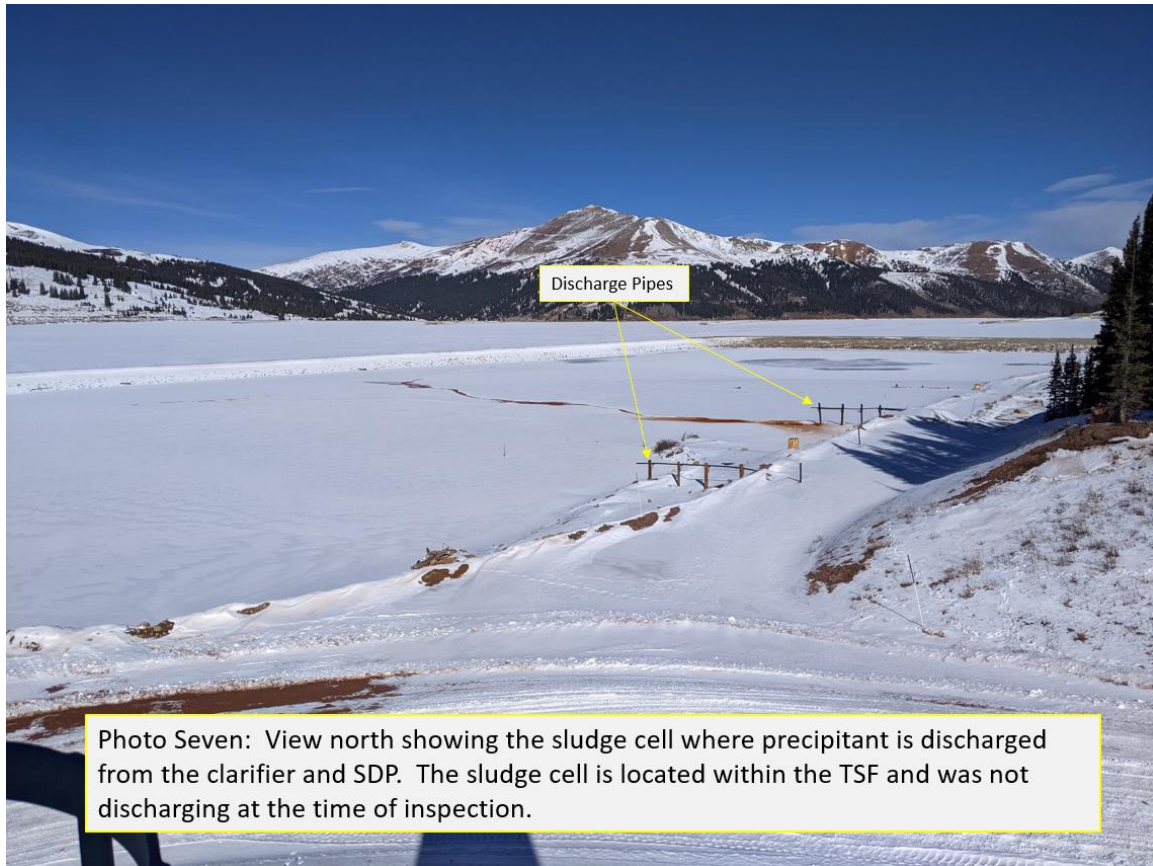




Photo Nine: View northeast, showing the trough system leading to the main sump of the PDWTP, also showing the various tanks in the main facility.



Photo Ten: View southeast, showing the sulfuric acid injection system for pH adjustment in the filter room.

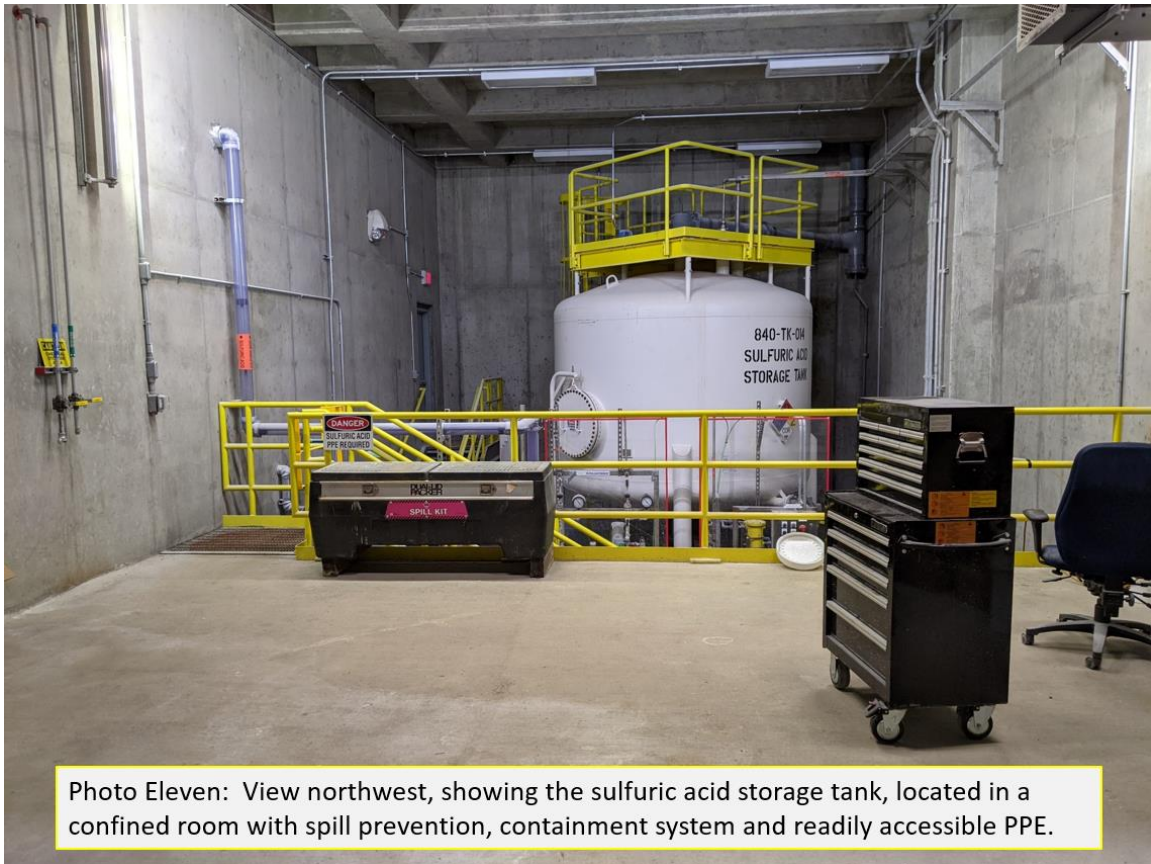


Photo Eleven: View northwest, showing the sulfuric acid storage tank, located in a confined room with spill prevention, containment system and readily accessible PPE.

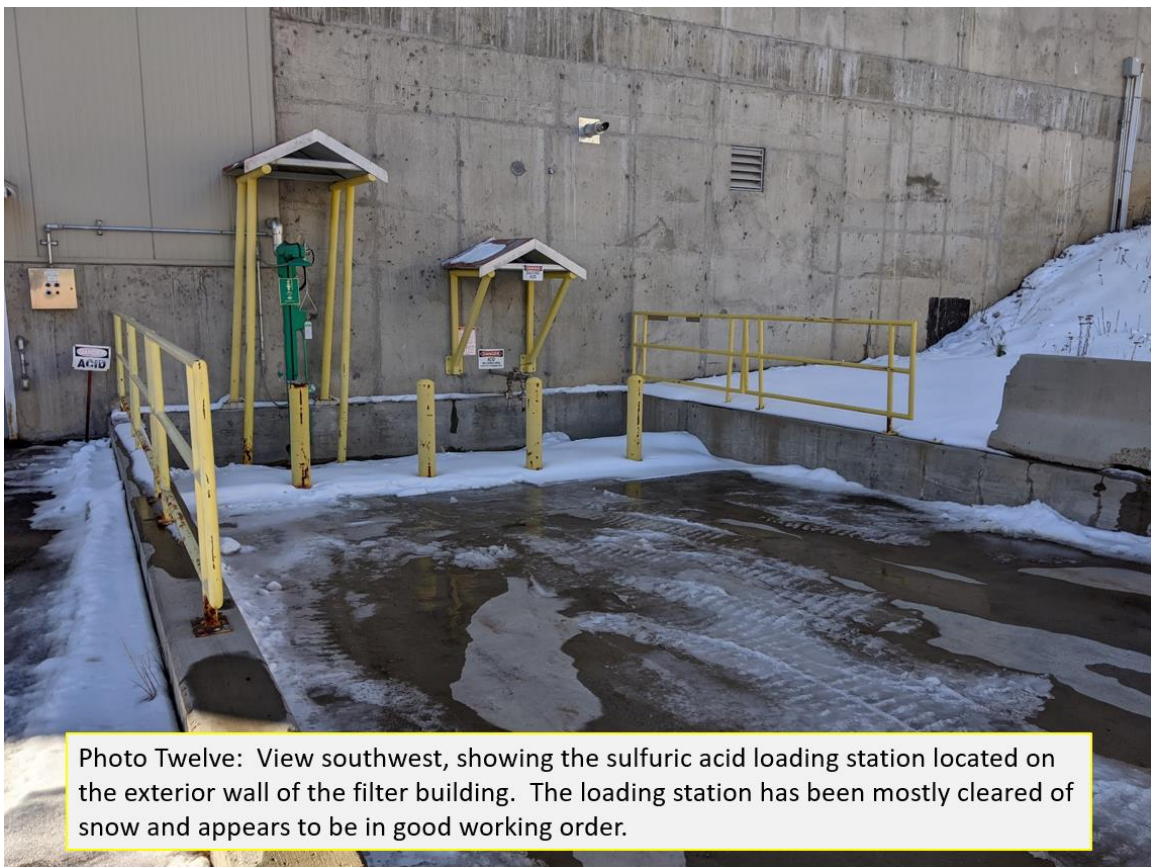


Photo Twelve: View southwest, showing the sulfuric acid loading station located on the exterior wall of the filter building. The loading station has been mostly cleared of snow and appears to be in good working order.