COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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	**WEATHER:** Clear	**INSP. DATE:** September 19, 2023	**INSP. TIME:** 09:45
OPERATOR: Climax Molybdenum Company	**OPERATOR REPRESENTATIVE:** Eric Detmer	**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:** DRMS	**JOINT INSP. AGENCY:** None	
INSPECTOR(S): Amy Yeldell Todd Jesse	**INSPECTOR'S SIGNATURE:** Amy Yeldell	**SIGNATURE DATE:** September 26, 2023	

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

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 County and is accessed from Colorado State Highway 91. The site consists of 14,000 permitted acres, of which approximately 8,000 acres have been affected. The Division currently holds $91,011,850.00 in Financial Warranty for the site. Eric Detmer represented Climax Molybdenum Company and accompanied Amy Yeldell and Todd Jesse of the Division on the inspection.

Division staff first checked in at the guard station at the main gates located on the east side of HWY 91. The weather was clear during the inspection. The top peaks received a dusting overnight but no snow has stuck within the mining areas.

The following areas were inspected: Chemical containment and the reagent transfer area of the mill. Containment for Water Treatment Chemicals of Lime Slacker for SDP, the Sludge Densification Plant (SDP), and Property Discharge Water Treatment Plant (PDWTP)/Metals Filter Building. The Parshall Flume, Outfall 001A. Overview of progress on new Molybdenum building.

Mill Facility Chemical Containment:
At the Mill Facility, chemicals are stored in three areas, the Reagent Storage Room, bulk storage under the flotation cells, and the internal and external lime storage areas. In general the floors throughout the mill are designed to be secondary containment structures by using sloping, a series of curbs and in floor sumps to contain and reintroduce any spilled materials.

Containments under the crushing circuit had some wet rock dust. Periodically the containments are hosed out and the material is added back into the system (Photo One). No cracks, fractures or evidence of compromise was noted. Some chemicals are stored under the floatation circuit in IBC Totes (Photo Two). The floor in this area was mostly dry and the sump was clean at the time of the inspection. The floor beneath the lower floatation circuit was wet. All sumps observed were free from obstruction and able to function as designed with sprayers directing materials into the sumps (Photo Three).

The external lime storage silo was also observed to be in excellent condition and can be seen in (Photo Four). No evidence of spillage or lime scaling was observed on or around the silo. Secondary containment for the silo is achieved by the pads surrounding the Mill Facility that would contain any possible spillage.

Reagent Transfer Area and Storage Room:
The Reagent Storage Room and transfer bay were observed to be in excellent condition. The transfer bay was clean, neat and well kept. The pipes and delivery systems appeared to be in good working order and no evidence of spillage during transfer was noted (Photo Five). The sump associated with the transfer station was clean and free from obstruction. The transfer bay is sloped towards the interior of the mill facility providing for secondary containment should any spillage occur.

The Reagent Storage room is a separate room attached to the Mill Facility to provide containment of the chemicals and is accessed from an exterior man door. No evidence of spillage or containment concerns were observed, the sump is clean and clear from obstructions (Photo Six). No cracks, fractures or evidence of compromise were noted.

Lime Slacker for SDP:
Three lime silos contain the dry pebble lime. The dry pebbled lime is mixed with fresh water in the lime slacker, which creates the slacked lime slurry. This slacked lime slurry is then pumped to the SDP.
Residual dried lime is present throughout the building as everything was covered in a white layer. All floors within the buildings were dry indicating no recent spills or loss of containments (Photo Seven). Floor drains and sumps were also dry.

Sludge Densification Plant (SDP):
Slacked lime from the lime slacker is pumped into a large holding tank called the Lime Slurry Tank which is located within the SDP building. Two reactor (neutralizer) tanks mix the impacted water with the slacked lime. Once mixed water goes to the clarifier (thickener). Sludges are recirculated so that the treated water overflows out the top and the sludges are consolidated and drop out the bottom. All tanks appeared to be in excellent condition. No cracks, fractures or evidence of compromise were noted. A water truck is parked next to the Slacked lime tank to transport the lime slurry to locations on an as needed basis.

Two polymer tanks were also located within the SDP building. One tank is for mixing the other is the batch feed tank. The dry polymer sacks are neatly stacked on pallets in the back of the building.

Contained within the SDP building is a small spill pallet for storage of hazardous materials. Used oil and other hydrocarbons were stored on this pallet (Photo Eight). No other materials were observed outside of containment within the SDP. Throughout the SDP, the facility is well kept, clean, neat and organized. Located throughout the SDP are floor drains. Spills go into floor drains and overall are contained within the drainage area of the Tenmile TSF. All floors within the buildings were dry indicating no recent spills or loss of containments. Floor drains and sumps were also dry.

Property Discharge Water Treatment Plant (PDWTP) and Metals Filter Building:
The PDWTP was not in operation at the time of the inspection. It was wet tested in August to meet sampling requirements but Climax has not needed to discharge treated water therefore it was not running. Water treatment will likely resume in October. In the meantime routine maintenance was taking place.

A lime silo is located outside of the PDWTP to feed pebbled lime into the Lime slacker within the PDWTP. Raw water from the Mayflower Pond and the slacked lime are fed into the Metals Reactor tank where it's mixed. There are two Metals Reactor (neutralizer) tanks in series within the PDWTP. The resulting slurry/precipitate then goes into the one of two Metals Thickeners (clarifiers) that are in parallel. The clarifiers are located outside of the PDWTP under an enclosed dome that is connected via walkways. Within the clarifiers the sludges are further thickened/precipitated and then the overflow water will proceed to the Metals Filter building. All tanks, reactors and mixing facilities are in excellent condition, the main facility is very well kept, clean, neat and organized (Photo Nine). The main facility has a series of troughs leading to the main sump for secondary containment.

Also located within the PDWTP building are the Metals Sludge Tanks, Metals Filtrate Tank, a Metal Flocculent Storage Tank, Metals Mixed Flocculent Tank and a Fresh Water Tank. There is a large sump built into the foundation of the PDWTP. All floor drains discharge into the cellar which was dry at the time of the inspection. Miscellaneous hydrocarbons are stored on spill pallets located throughout the building (Photo Ten). There is a sulfuric acid room located within the Metals Filter Buildings and the reagent is transferred throughout the system via a double walled pipe. The tank and sump are in excellent condition (Photo Eleven). 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 (Photo Twelve). The station is clear of debris, well-kept and appears to be in good operating condition.

The Parshall Flume, Outfall 001A:
The Parshall Flume is the official start to the Tenmile Creek and is outfall 001A. There is a 500 linear foot long mixing area between the discharge point and outfall 001A. Within the shed atop the flume was a stream gauge. Water quality samples are also taken from within this buildings via grab samples. Fish were observed on the downstream site of the flume indicating good water quality.

Molybdenum Building:
The new molybdenum building (TR-34) is under construction. This is a supplementary process to Climax's existing Property Discharge Water Treatment Plant (PDWTP). A crane and several crews were on site actively working on this new EPF. Steel for the walls was being erected and three tanks have been constructed to date (Photo Thirteen). The building is slated to be online in the first quarter of 2025. Once online the raw water will first go into the Moly building, then water will go to the existing PDWTP building and finally the existing Metals Filter Building before discharge.

No Problems or Possible Violations were identified during this inspection.

Responses to this inspection report should be directed to: Amy Yeldell at the Division of Reclamation, Mining and Safety, Rm 215, 1001 E 62nd Ave, Denver CO 80216. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

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Enclosure

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Lucas West, DRMS
Todd Jesse, DRMS
Alex Ungers, Climax

PHOTOGRAPHS

Photo 1: Rock dust on the floor under the crushing circuit, secondary containment in place

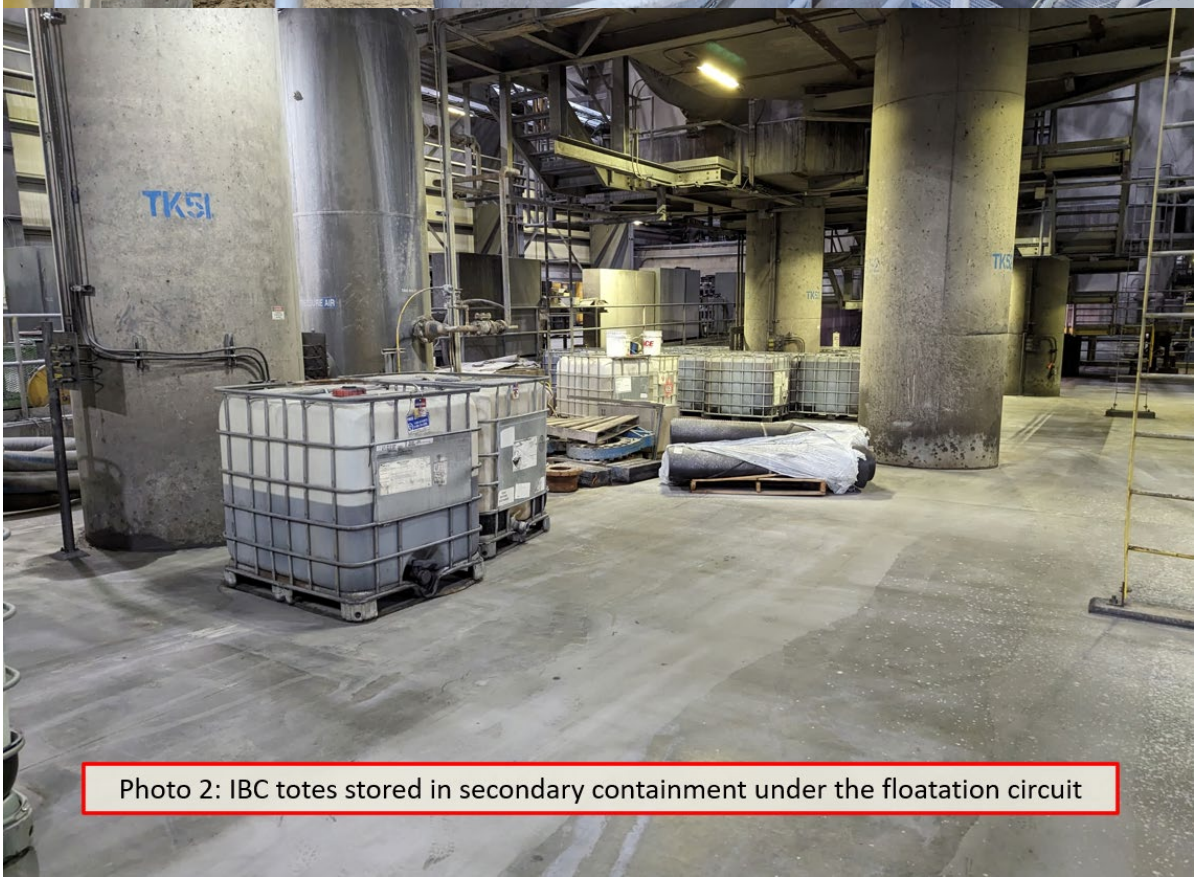

Photo 2: IBC totes stored in secondary containment under the floatation circuit

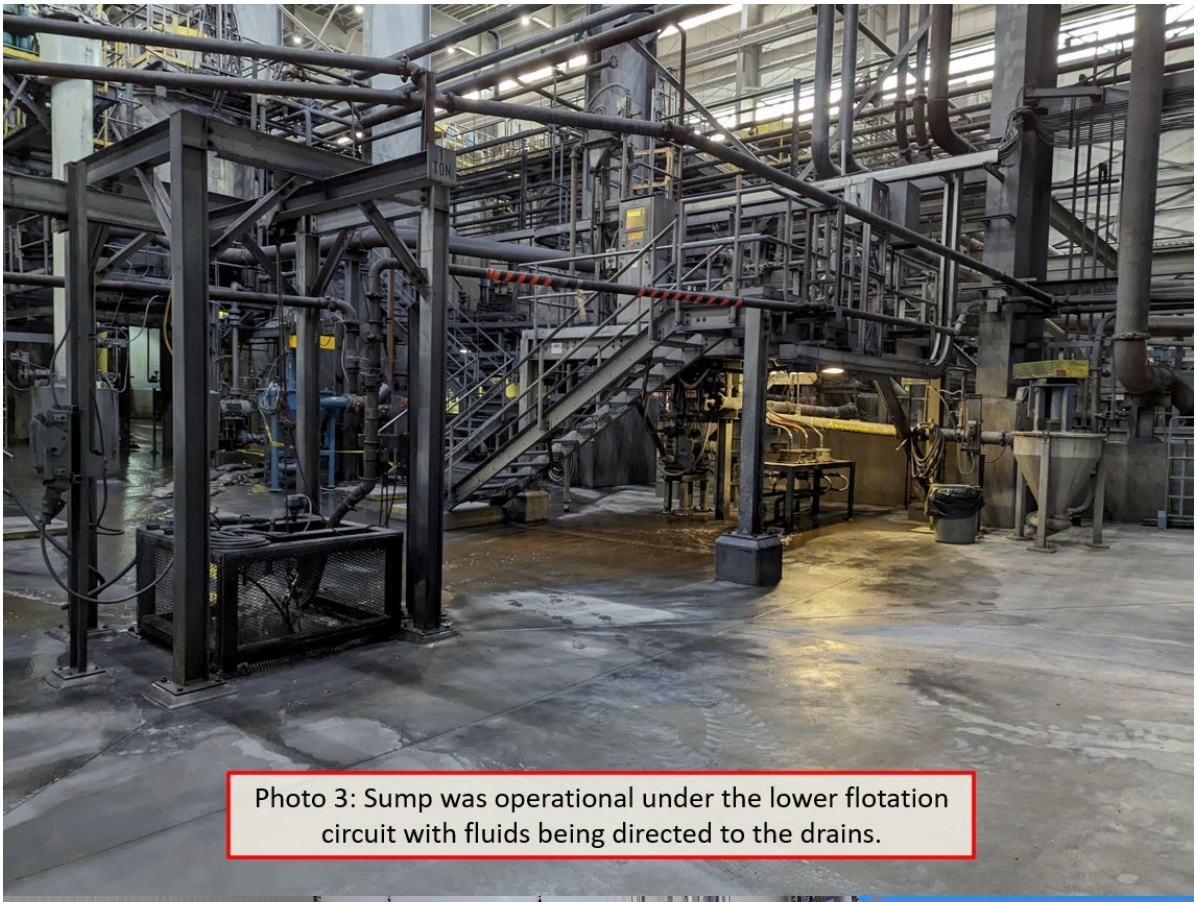

Photo 3: Sump was operational under the lower flotation circuit with fluids being directed to the drains.

Photo 4: External lime silo outside of the mill.

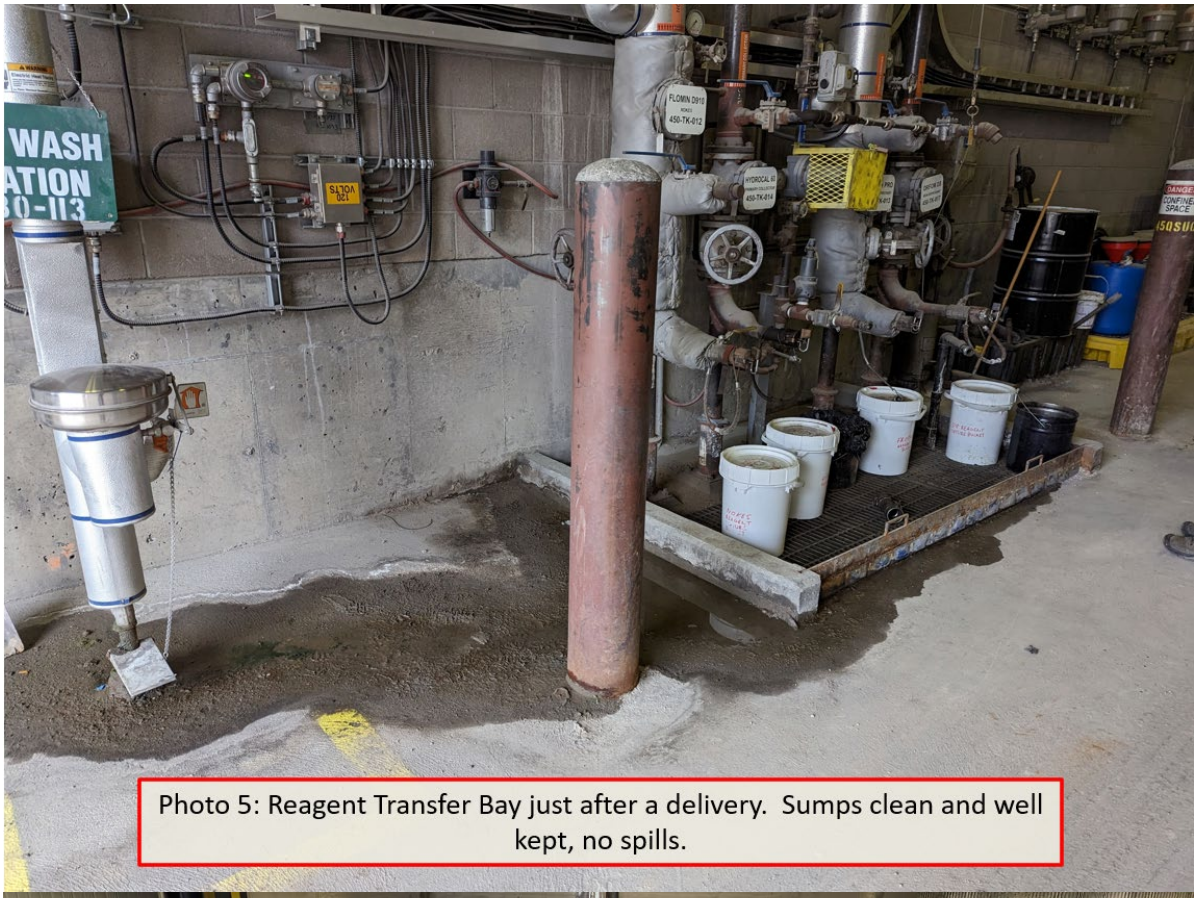

Photo 5: Reagent Transfer Bay just after a delivery. Sumps clean and well kept, no spills.

Photo 6: Reagent Storage Room, dry floor no apparent leaks.

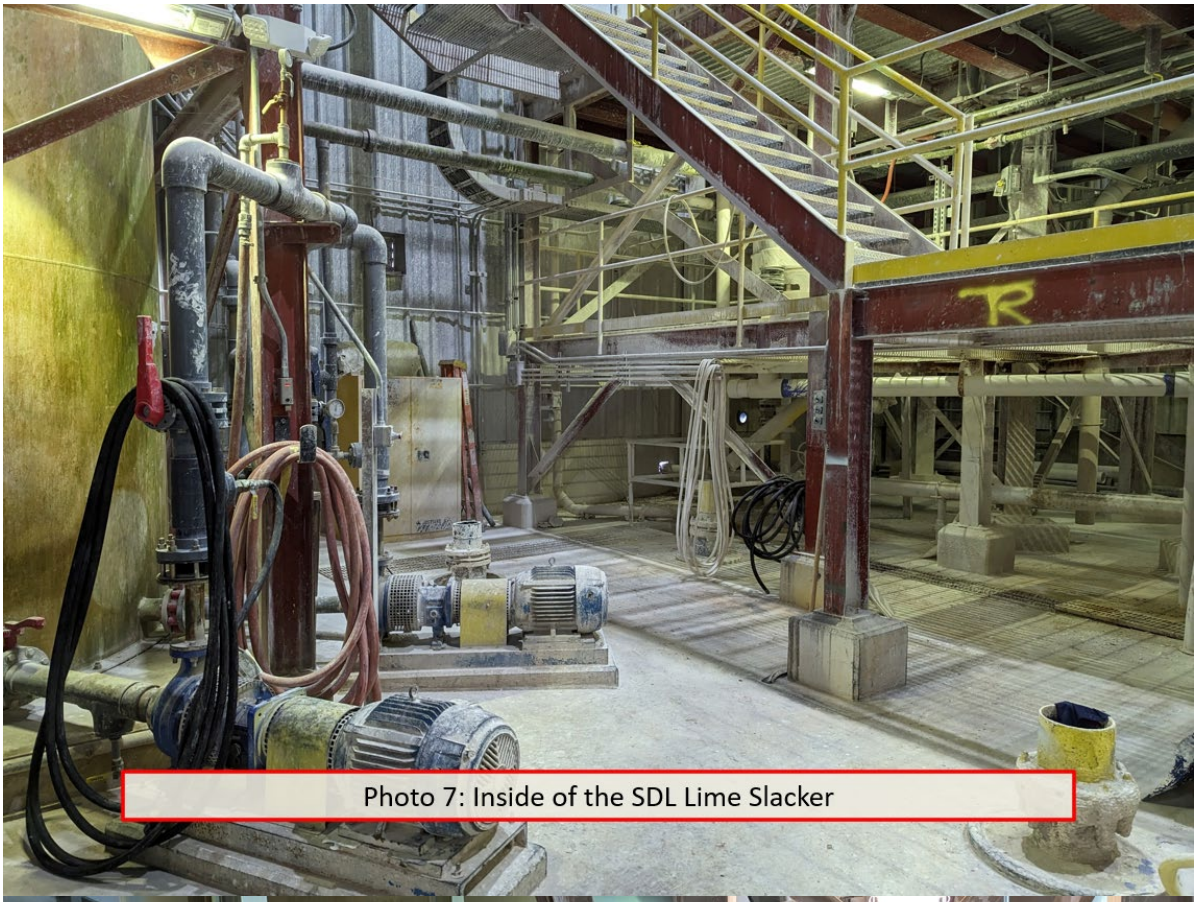

Photo 7: Inside of the SDL Lime Slacker

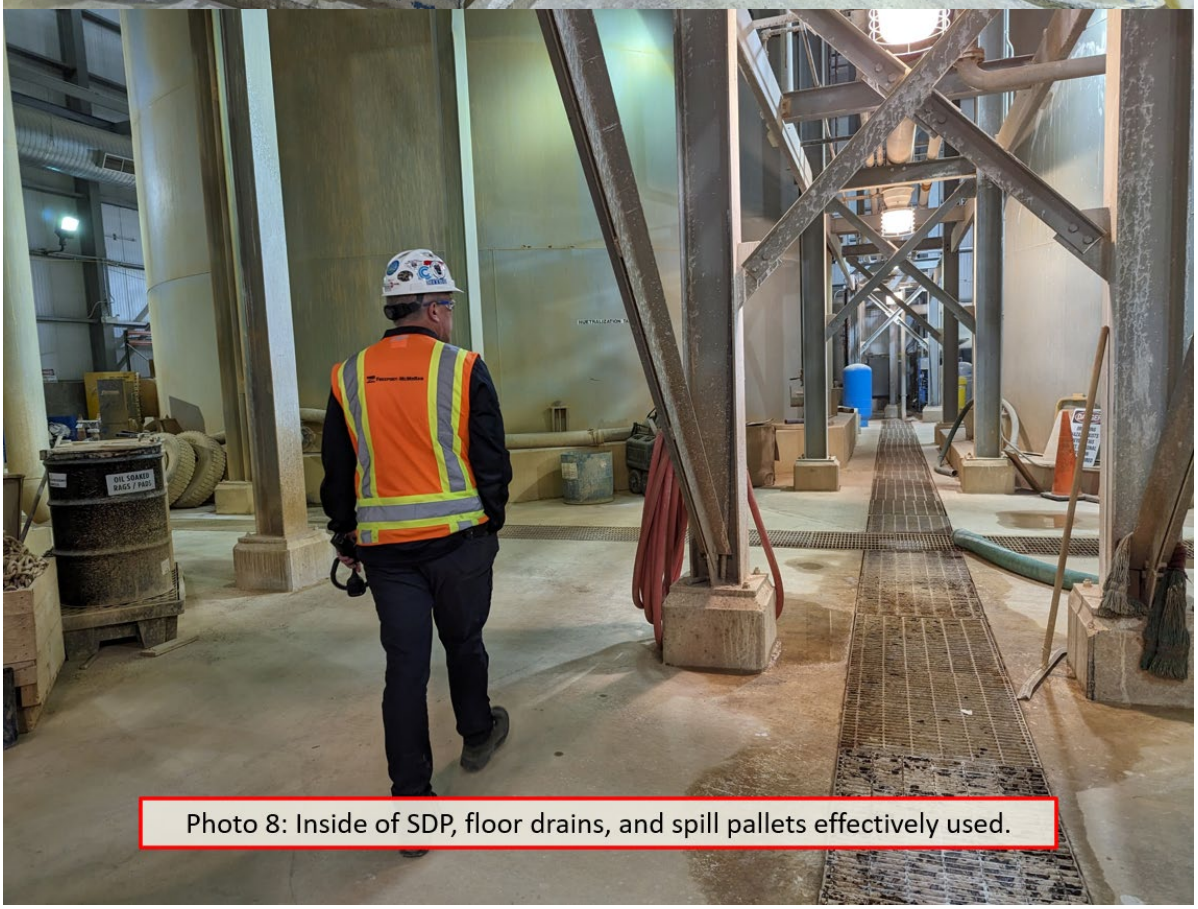

Photo 8: Inside of SDP, floor drains, and spill pallets effectively used.

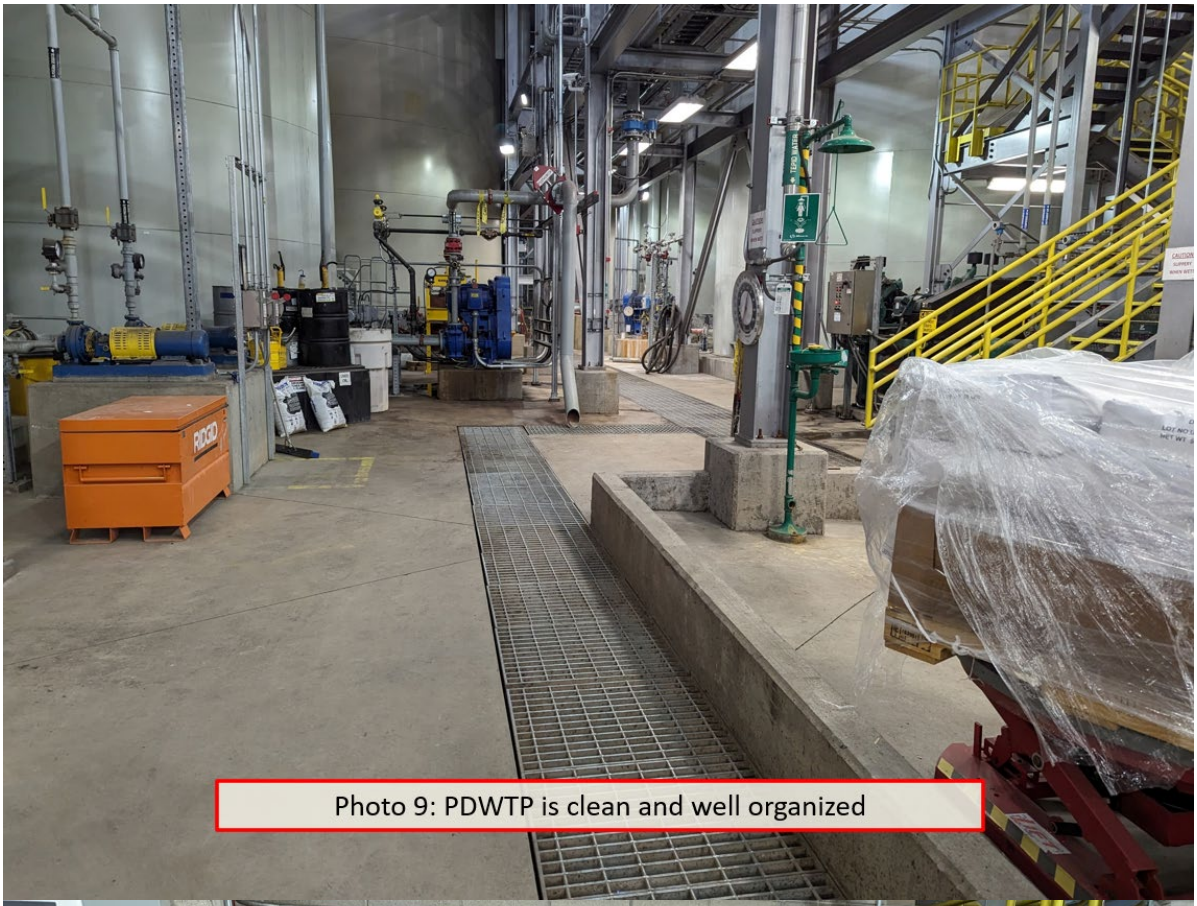

Photo 9: PDWTP is clean and well organized

Photo 10: Hydrocarbon storage within the PDWTP

Photo 11: Sulfuric Acid storage room whing the Metals Filter Building

Photo 12: Sulfuric Acid Loading station outside of the Metals Filter Building. Containment and sump clean and in good shape

Photo 13: Current construction of the new Moly building