




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

The Division of Reclamation, Mining and Safety 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: Phoenix Mine	MINE/PROSPECTING ID#: M-1982-075	MINERAL: Gold and silver	COUNTY: Clear Creek
INSPECTION TYPE: Monitoring	INSPECTOR(S): Peter Hays	INSP. DATE: September 11, 2020	INSP. TIME: 10:00
OPERATOR: Alvin Mosch - Patricia Mosch	OPERATOR REPRESENTATIVE: David Mosch	TYPE OF OPERATION: 110(2) - Hard Rock Limited Impact	
REASON FOR INSPECTION: Normal I&E Program		BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$4,475.00
DATE OF COMPLAINT: NA		POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 		SIGNATURE DATE: October 1, 2020

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Availability Of Records

PROBLEM: The Operator for the site is listed with the Division as Alvin and Patricia Mosch. The site appears to be operated by Mosch Exploration & Mining, LLC, which is registered with the Colorado Secretary of State. This is a problem pursuant to C.R.S. 34-32-119.

CORRECTIVE ACTIONS: The Operator must submit a Succession of Operator form to transfer the Reclamation Permit to Mosch Exploration & Mining, LLC or another registered company or individual by the corrective action date.

CORRECTIVE ACTION DUE DATE: 11/30/20

OBSERVATIONS

The Phoenix Mine was inspected by Peter Hays with the Division of Reclamation, Mining and Safety (Division/DRMS) as part of the Division's monitoring inspection program. The site was previously inspected by the Division on January 21, 2016. Mr. David Mosch with Mosch Exploration & Mining, LLC was present during the inspection.

The Phoenix Mine is located 2 miles west of Idaho Springs, CO in Clear Creek County. The site is a 110(2) Hard Rock Limited Impact operation permitted for 0.44 acre. The approved post-mining land use is recreation. The Phoenix Mine is an underground mine. The primary commodities mined are gold and silver. In addition, the Operator runs a tourist business which takes people through portions of the underground mine. A tourist mine permit is issued for the site by the Mine Safety and Training Division. The tourist business accounts for the primary activity at site. Tours were being conducted at the time of the inspection.

As cited as a problem, the Operator for the site is listed with the Division as Alvin and Patricia Mosch. The site appears to be operated by Mosch Exploration & Mining, LLC, which is registered with the Colorado Secretary of State. The Division will require the Operator to submit a Succession of Operator form to transfer the Reclamation Permit to Mosch Exploration & Mining, LLC or another registered company or individual by the corrective action date.

The surface facilities for the mine are situated west of Trail Ridge Road and include a mill building and several equipment storage areas. The 2020 Annual Report states the site was last active on June 14, 1982 and the site operates less than 180 days per year. Based on discussions with the Operator, the mine and mill have not been active since the early 1990's.

The Phoenix Mine operates under a 110(2) Hard Rock Limit Impact Reclamation Permit. During the previous inspection, the Operator informed the Division the ore within the Phoenix Mine contains sulfide minerals and has the potential to generate acid.

Pursuant to Rule 1.1(20), a Designated Mining Operation (DMO) is a mining operation at which:

- a) designated chemicals used in metallurgical processing are present on-site; or
- b) toxic or acid-forming materials will be exposed or disturbed as a result of the mining operations; or
- c) acid mine drainage occurs or has the potential to occur due to mining or reclamation activities.

The implementation of the Hard Rock Rules pertaining to DMO's did not take effect until after the Reclamation Permit for the Phoenix Mine was issued. Therefore, the Division did not take into account the potential use of designated chemicals at the mill or the potential of the ore to be acid-generating.

As required by Rule 7.1.4, all DMO Operators shall submit to the Office an Environmental Protection Plan (EPP) which addresses the protection of human health, property or the environment in conformance with the duties of Operators as prescribed by the Act and Rules. Based on the conversation with the Operator and knowledge of the composition of ore deposits in this mining district, the Division has a reason to believe the Phoenix Mine meets the definition of a DMO. Any determination of DMO status will follow the process outlined in Rule 7.2. In order to make a determination, the Operator will be required to perform a geochemical evaluation of any material that will be exposed by mining, placed in on-site solution containment systems or facilities,

stockpiled or disposed of on the affected land that has the potential to cause acid mine drainage or to release designated chemicals or toxic or acid-forming materials. The Operator will be required to perform an acidbase accounting (ABA) analysis to calculate the net acid-generating potential of on-site materials. Prior to performing an ABA analysis, the Division will require the Operator to submit a sampling plan, as a Technical Revision, which ensures the collected samples are representative of the diverse lithology, mineralogy and ore grade of all material that is subject to the provisions of Rule 6.4.21(14).

The sampling plan shall specify the following:

- a) Total number of samples to be collected
- b) Locations of collected samples
- c) Sample collection methodology
- d) Analytical method to be used for acid-base accounting test
- e) The accredited laboratory use to analyze samples

The lack of detail in the Mining Plan in regards to the acid-generating potential of the mined material was cited as a problem in 2016. In response to the problem, the Operator agreed to complete final reclamation of the site by June 1, 2017. The final reclamation has not been completed by the Operator to date. During this inspection, the Operator stated they intend to rehabilitate the mine and mill facilities to operate the site due to the current price of gold and to add to the tourism aspects of the site. The Operator is aware of the requirement to submit and obtain approval of a 110(d) Reclamation Permit prior to conducting mining and/or milling activities at the site. The Operator stated a consultant has been obtained to complete the permitting process.

The Division holds a financial warranty in the amount of \$4,475.00. The financial warranty amount will be evaluated during the permitting process to convert the site to a DMO operation.

The mine sign and boundary markers were observed as required by Rule 3.1.12. Based on the Division's file, the permit boundary is composed of two (2) polygons for a total permit area of 0.44 acres. The Operator though the southern triangle shaped polygon had been removed from the permit boundary. The Division's file indicates the triangle polygon in the amendment application (AM-01) submitted on June 30, 1994 and in the technical revision (TR-03) submitted on March 23, 2016. Copies of the maps are attached for reference.

The inspection focused on the surface facilities at the site. The underground portions of the mine were not inspected by the Division. All mine entrances are secured with steel doors with locks. The mill building houses a jaw crusher, a ball mill, a bank of float cells and a shaker table. According to the Operator, the mill building has not been operational for decades. The bank of float cells were not hooked up to the milling circuit. The mill would require some additional work to be fully functional, which the Operator intends to perform to operate the mill. The milling process currently does not use chemicals in metal recovery and relies on gravity concentration. The Division found no evidence of chemicals being stored or used in the mill. A variety of spare parts and tools are stored in the mill building. The Operator stated they intend to clean up the mill building as time allows. The upper level of the mill is accessed by way of a cat-walk which connects to the hillside above the mill building. The upper level of the mill building contains an office area and the jaw crusher. The current Mining Plan does not contain any details about how the mill will be operated. The pending conversion to a DMO operation must include a complete explanation of all processing facilities, including the mill, as part of an updated Mining Plan.

The Operator stated the empty fuel tank located in the southern portion of the permit boundary on the bench above Trail Ridge Road and the generator trailer located north of the mill building would be removed from the site this year.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- PB	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>Y</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>Y</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>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

Inspection Contact Address

David Mosch
3006 Forest Way
Evergreen, CO 80439

Enclosures – AM-01 and TR-03 maps

Ec: Jared Ebert, DRMS

PHOTOGRAPHS



Mine sign and permit boundary marker



View of the mill building looking northwest



Generator trailer, to be removed this year



Tanks, to be removed this year



View of the mill building looking southeast



View of the triangle shaped polygon from the southern end looking northwest



View of the triangle shaped polygon from the northeast corner looking southwest



View of the rectangle shaped polygon from the southeast corner looking northwest

Total Permitted Area - Exhibit A

Area Shown in Exhibit B
New Permit Boundary

Present Permit Boundary

Section 33, T.3S.,
R73W of the 6th P.M

Scale: one inch = 200 feet

Permit Number #:
Class: ☒ Permit
Sec/Exhibit

Class: ☒ Revision
Type/Seq

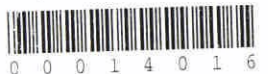
Class: ☐ Report ☐ Hydro ☐ General

Doc Type

☐ Appl. ☐ Bond ☐ Enforce ☐ Inspect

M1982-075

Am-001 Application



00014016

Letter "D" of Figure 1 shows the location that is part of the permitted area to store equipment that at one time may have been needed for the mining operation. The equipment in this area includes mining, processing and exploration equipment. All of it is at least 50 years old and are considered to be antiques. In this site is also a 20-foot metal tower that was constructed at one time to contain a vertical belt conveyor.

The letter "E" shows the location of the old air compressor and fuel storage equipment that powered the mine in the 1970's and 1980's.

The area within the permit boundary (shown in green in Figure 1) is 0.45 acres. The permit area is on the patented mining claims named the Phoenix, US Mineral Survey No. 526A and the Phoenix MS, US Survey No. 586B. These claims are located in Clear Creek County and are located in the North-East 1/4th of the North-West 1/4th of section 33, Township 3 South, Range 73 West of the 6th Principle Meridian.

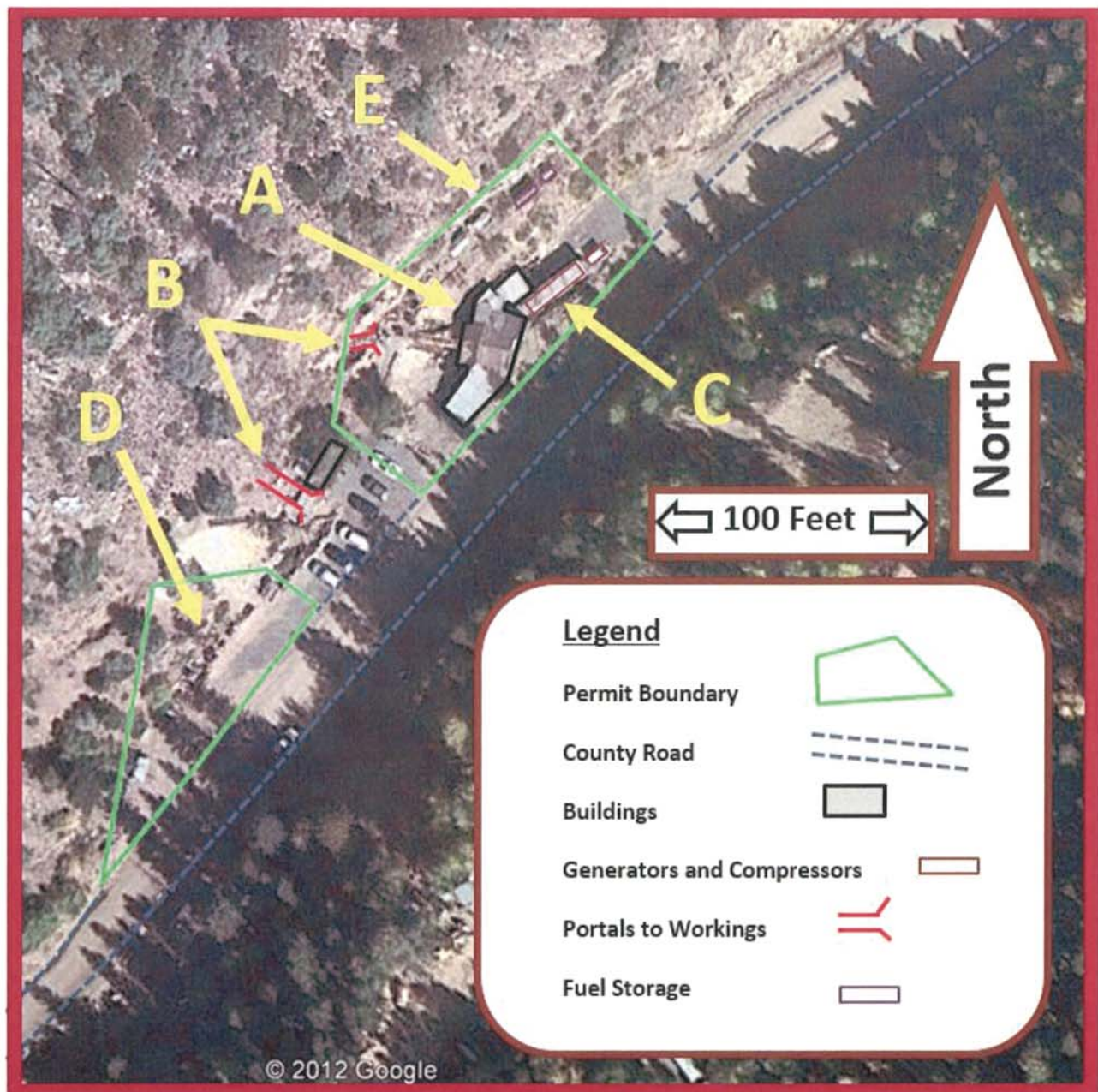


Figure 1; The Over All Permit Boundaries of Permit M-1982-075