




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: Empire Pit	MINE/PROSPECTING ID#: M-1977-534	MINERAL: Sand and gravel	COUNTY: Clear Creek
INSPECTION TYPE: Monitoring	INSPECTOR(S): Peter Hays	INSP. DATE: July 13, 2021	INSP. TIME: 13:30
OPERATOR: City of Golden	OPERATOR REPRESENTATIVE: Anne Beierle	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$0.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: July 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>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>Y</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>N</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>Y</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>N</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

The Empire Pit was inspected by Peter Hays with the Division of Reclamation, Mining and Safety at the request of the Operator, the City of Golden, to discuss possible modifications to the Reclamation Plan. The site was last inspected by the Division on September 1, 2017. Ms. Anne Beierle and Mr. John Hardy with the City of Golden and Ms. Glenda Guanella and Ms. Sally Buckland, landowners, and other family members were present during the inspection. The inspection observations are limited to the high alkalinity area and the western portion of the site. An inspection map based on the current Google Earth image of the site is attached for reference.

Technical revision no. 3 (TR-03) was approved by the Division on May 21, 2018. The technical revision revised the Reclamation Plan to address a 28.675 square foot (0.65 acres) area of high alkalinity (project area) located at the western boundary of the remaining 28.50 acre site. The Division released 110.08 acres of the original 138.58 acre site under acreage reduction no. 1 (AR-01) on October 31, 2017. The revised Reclamation Plan states the Operator will excavate the project area 2.5 feet, a capillary barrier will be placed in the bottom 6 inches of the excavation, a 2 foot layer of subsoil will be placed and covered with a minimum 6 inch layer of topsoil. The topsoil and subsoil will be tested by the CSU soil testing lab and results will be submitted to the Division. The Operator also committed to providing a signed affidavit certifying the imported soils are clean and inert per Rule 3.1.5(9)(c), they will provide the Division with a minimum of 2 weeks written notice prior to conducting excavation activities, excavation will not occur until a soil source is identified, approved by the Division and imported to the site. The project area will be mulched with a weed-free hay mulch at a rate of 2 tons per acre.

The approved post-mining land use for the remaining portion of the site is pastureland. The Operator requested the inspection to discuss alternatives to the approved Reclamation Plan for the high alkalinity area with the Division and the landowners. The Operator stated they have been unable to obtain the subsoil and topsoil due to the delays associated with finding the material sources, testing the materials and the materials still being available when the testing is complete. The Operator and the landowners discussed the possibility of re-contouring a portion of the site to produce the required materials from the remaining permitted area. The Operator stated aerial maps of the site would be provided to the landowner for them to identify any possible areas for re-contouring. The possibility of using a Geotech fabric in-place of the 6 inch capillary (clay) barrier was also discussed during the inspection.

The existing vegetation consisted primarily of well-established crested wheatgrass with lesser amounts of perennial ryegrass, Canada bluegrass and fescue. A few Canada thistle, a Colorado Noxious Weed List B species, were observed along the perimeter of the area. The Canada thistle appeared to have been recently chemically treated by the Operator. Kochia, an annual weed, was also observed in small patches at the site. The kochia was not outcompeting the native vegetation, but should continue to be monitored by the Operator.

The Division does not recommend disturbing the existing vegetation by re-contouring a portion of the site due to the maturity of the grasses. The Division recommends revising TR-03 to remove the testing and notification requirements of the currently approved plan for the high alkalinity area to allow the Operator to obtain the materials needed to complete reclamation. The high alkalinity area was observed to be very hard packed with a crust-like surface. The landowners stated they were using a portion of the area as a two-track road to access a building located in the southwest corner of the site. The Operator and landowners discussed the possibility

of building a road to the structure. The Operator stated they would contact the Division after discussing options for the high alkalinity area with the landowners. The Operator will be required to submit a technical revision, pursuant to Rule 1.9, if the currently approved Reclamation Plan is changed based on the discussions with the landowners prior to performing any reclamation work.

Photographs taken during the inspection are attached. If you need additional information or have any questions, please contact me at the Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at 303.866.3567 x 8124, or by email at peter.hays@state.co.us.

Inspection Contact Address

Anne Beierle
City of Golden
Director of Public Works
Golden, CO 80401

Enclosure – Inspection Map

Ec: Jared Ebert, DRMS

PHOTOGRAPHS



View of the high alkalinity area and two-track road from the south looking north



View of the site vegetation from the west side of the site looking east



View of the site vegetation





View of the site vegetation


Empire Pit


M-1977-534
July 13, 2021 Inspection Map


Legend

 Approx. Area Observed During the Inspection

 Approx. High Alkalinity Area

 Approx. Permit Boundary

 Empire Pit

 Two-track Road

Empire Pit 