



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: Penrose Ranch's	MINE/PROSPECTING ID#: M-1992-016	MINERAL: Sand and gravel	COUNTY: Fremont
INSPECTION TYPE: Monitoring	INSPECTOR(S): Timothy A. Cazier	INSP. DATE: August 7, 2018	INSP. TIME: 15:15
OPERATOR: Rocky Mountain Materials and Asphalt, Inc.	OPERATOR REPRESENTATIVE: David Bieber	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Partial Bond	BOND AMOUNT: \$281,284.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: January 31, 2019	

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

Y = Inspected and found in compliance / 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 regular monitoring program. The Permittee (Rocky Mountain Materials and Asphalt, or RMMA) was represented by Dave Bieber, who was present for the inspection. The Penrose Ranch site is located approximately five miles ESE of Florence, CO off State Hwy 120 and is accessed from CR 112 about one mile south of the intersection of CR 112 and Hwy 120.

Mine Plan Summary: [Ref. AM-02] The Gravel deposit is located on ridge tops throughout the permitted area. Overburden ranges from 0' to 10' in different areas. The Gravel deposit ranges from 8' to 30' in depth throughout the area. The mine plan involves the following: Strip and stockpile overburden from plant site and construct site access roads with self-loading scrapers and/or loader and dozer. Set up plant (consisting of primary/secondary crushers, screens, conveyors, grizzlies and feeder, generator, scales, office and wash plant equipment). Strip and stockpile overburden from an area to accommodate 6 months production with scrapers and/or a dozer and loader. Excavate edge of gravel deposit along slope's with a backhoe and loader combination. When sufficient area is excavated for loader to operate on the pit floor, excavate and tram to the plant with a loader. Strip additional areas to be mined, placing topsoil on completed mining areas.

Water impoundments are constructed to store water to be used to wash extracted product. These impoundments are also used to catch stormwater from the site. Berms around the perimeter of the mining area will be used to control stormwater.

The current site is permitted for 200 acres (per TR-1, revised from 35 acres) of disturbance at any one time. SR-1 released 100 acres.

Reclamation Plan Summary: [Ref. AM-02] The reclamation plan is designed to return the land to rangeland. Topsoil and overburden that has been from stripped from current mining areas will be placed on the area to be reclaimed. Mine slopes will generally be excavated to a 1:1 slope. Excess fine material will be deposited at the toe of the slope then covered with overburden to produce a slope of 3:1 or less. The mine floor, not required for continued plant operations will be reclaimed with available overburden, excess fines and topsoil. At the floor edges adjacent to the steep slopes a berm will be provided to prevent slope erosion and erosion of the reclaimed floor area.

Availability of Records: Annual fees are paid through April 2018. The previous inspection was on August 6, 2014. There are no open infractions. Both the surface and minerals are privately owned.

Backfilling and Grading: Mr. Bieber indicated backfill to achieve final 3H:1V slopes will be achieved by pushing material down from the top of active highwalls.

Excess Spoil and Dev. Waste: Overburden was stockpiled on top of the highwalls to construct safety berms (see **Photo 1**).

Financial Warranty: The \$281,284 bond held by the Division is minimally adequate for the observed mine disturbance.

Fish and Wildlife: No impact to wildlife was observed.

Hydrologic Balance: Some puddles (see **Photo 2**) were observed in the pit, but no exposed groundwater was observed.

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved mine plan. Google Earth was used to measure the disturbed area, which was estimated to be approximately 158.5 acres, based on 2018 imagery (see enclosed **Post 2018 Inspection Map**). This does not include Areas or portion of Areas 1 – 5 considered reclaimed, but not released as part of the 2014 approved surety reduction. Highwalls were estimated to be 15 feet in height and appeared stable (see **Photo 3**). Mining is progressing towards the south.

Off-site Damage: The operation appeared to be confined to the permit boundary, based on Google Earth review and site observations.

Processing Waste: No processing waste was observed.

Roads: Haul / access roads did not appear to be a source of sediment that could be tracked offsite to a paved road. Mr. Bieber stated they use magnesium chloride to help control dust on site roads.

Reclamation Success: Surety reduction No. 1 (SR-01) was approved by the DRMS in 2014 based on completed reclamation of 103.2 acres in the north portion of the mine on the north side of Hwy 120 and in the central area of the south portion of the mine. These areas were not released from reclamation liability nor from the permit. The approval of SR-01 only acknowledged completed reclamation at the time allowing a reduction in the required financial warranty. [The DRMS recommends RMMA request a full release of the area north of Hwy 120 if it is fully reclaimed and no further mining is planned for this area.](#)

Revegetation: Some tamarisk (salt cedar) plants were observed, but not enough to be cited as a problem. However, the Operator should implement a weed control program to reduce the number of tamarisk before they become problematic.

Sediment Control: No erosion problems were observed and no BMPs were needed at the time of the inspection.

Support Facilities On-site: A screen plant, conveyor system (see **Photos 4 and 5**), loaders, and scrapers were observed on site.

Signs and Markers: The permit sign was properly posted (see **Photo 6**). The boundary is fenced.

Permit Stipulations: There are no open permit stipulations.

Storm Water MGT Plan: No oil or fuel spills observed. Stormwater is directed to the storage ponds on the north side of the mesa where active mining is taking place. Mr. Bieber stated these ponds are zero discharge facilities.

Structures: A power line was observed (**Photo 7**) extending from the water storage ponds up the hill to the maintenance area. Because this line terminates here and extends some distance, [RMMA should determine who owns the power line and if a structures agreement \(if owned by the landowner\) or utility agreement \(if owned by the utility\) is required.](#) If RMMA owns the power line, no agreement is needed.

Please contact Tim Cazier (303)866-3567 ext. 8169 or email at tim.cazier@state.co.us if you have any questions regarding this report.

PHOTOGRAPHS



Photo 1. Overburden stockpiled on top of highwalls to construct safety berms (looking SW).



Photo 2. Puddles from recent rain in pit floor.

PHOTOGRAPHS (cont.)



Photo 3. Typical highwall (south end).



Photo 4. Conveyor system, screen plant beyond on left (looking NE).

PHOTOGRAPHS (cont.)



Photo 5. Screen plant (looking south, scale house on right).



Photo 6. Permit sign (at entrance off CR 112).

PHOTOGRAPHS (cont.)



Photo 7. Power line from water storage ponds to maintenance area (looking NE from maintenance area).

Inspection Contact Address

David Bieber
Rocky Mountain Materials and Asphalt, Inc.
c/o Martin Marietta Materials, Inc.
1627 Cole Boulevard, Suite 200
Lakewood, CO 80401

Enclosure

ec: DRMS file

M-1992-016 Post 2018 Inspection Map

Satellite Imagery from 6/1/2018
All boundaries are approximate

Legend

- 2018 Affected Area
- Permit Boundary
- SR01 Area

158.5 Acres
Affected

Area 2

Area 1

Area 3

Area 4

Area 5

Penrose Ranch's

Google Earth

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2000 ft

