




**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.

<b>MINE NAME:</b> Parkdale Project	<b>MINE/PROSPECTING ID#:</b> M-1997-054	<b>MINERAL:</b> Sandstone (silica, stone, quartzite), gravel and granite, granite gneiss	<b>COUNTY:</b> Fremont
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Timothy Cazier	<b>INSP. DATE:</b> July 24, 2019	<b>INSP. TIME:</b> 14:15
<b>OPERATOR:</b> Front Range Aggregates, LLC	<b>OPERATOR REPRESENTATIVE:</b> Dave Bieber	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$1,174,724.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> December 13, 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>Y</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>Y</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 by Tim Cazier (DRMS) as follow-up to the truncated June 18, 2019 inspection to complete the inspection for the regular monitoring program. The Permittee (Front Range Aggregates) was represented by Mr. Dave Bieber of Martin Marietta Materials (MMM). The Parkdale Quarry site access road entrance is located off US 50, approximately 10 miles west of Cañon City. This is permitted as a 112c aggregate mine. It was active at the time of the inspection.

Availability of Records: Annual fees are paid through January 2019. The previous inspection was on June 18, 2019 (partial). The approved post-mine land use is developed water resource. There are no open infractions.

Backfilling and Grading: Mr. Bieber explained overburden will be used to backfill the alluvial pit. Sufficient backfill material appeared to be available.

Excess Spoil and Dev. Waste: Large overburden stockpiles were observed in the northwest corner of the permit area.

Explosives: Blasting is performed regularly for the granite quarry in the northeast corner of the permit area. Mr. Bieber indicated the mine has a blasting plan and blasting records are kept with their contract blaster, Buckley Powder.

Financial Warranty: Based on the previous inspection report, the \$1,174,724 bond is adequate.

Fish and Wildlife: No impact to wildlife was observed.

Hydrologic Balance: Standing water was observed in the alluvial pit and believed to be exposed groundwater. The DRMS received a copy of the approved substitute water supply plan (SWSP) from the Division of Water Resources in early December. The problem cited in the previous inspection report related to not having a current SWSP is resolved.

Gen. Compliance with Mine Plan: The operation appeared to be in compliance with the approved mine plan. File review indicates the maximum allowed disturbed area is 200 acres. Google Earth was used to measure the disturbed area, which was estimated to be approximately 176 acres, based on 2016 imagery. Highwalls in the granite quarry were estimated to be 40 feet in height and appeared stable (see **Photos 1 and 2**).

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

Processing Waste: The mine process results in a lot of fines. Two separate crushing/screening plants were operating during the inspection: one at the base of the granite quarry (see **Photo 3**) and another near the east end of the alluvial pit (see **Photo 4**). These materials are then used for backfill and reclamation.

Roads: Haul and access roads did not appear to be a source of sediment that could be tracked offsite. Mr. Bieber stated roads are dust controlled using water, but occasionally mag-chloride is used.

Reclamation Success: Concurrent reclamation was observed both at the granite quarry where the upper benches were being backfilled and hydro-mulched (see **Photos 5 and 6**); and the alluvial pit where the east end is nearing backfill completion (see **Photo 7**).

Revegetation: Some of the upper benches of the granite quarry had been seeded this year, but no vegetation had emerged at the time of the inspection (see **Photo 6**). No noxious weeds were observed.

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

Signs and Markers: The permit sign was properly posted (see **Photo 8**) and boundary markers were observed to delineate the permit boundary (see **Photo 9**).

Permit Stipulations: All permit stipulations have been terminated.

Storm Water MGT Plan: No oil or fuel spills observed. Mr. Bieber stated the site has three stormwater discharge points, all to Tallahassee Creek.

Topsoil: Process fines are used on the granite quarry benches (see **Photo 5**), but topsoil for the alluvial pit was stripped and stockpiled on the south side of the west end of the alluvial pit by the previous operator.

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

## **PHOTOGRAPHS**



Photo 1. Highwalls in the granite quarry (1 of 2, looking NW).

**PHOTOGRAPHS (cont.)**



Photo 2. Highwalls in the granite quarry (2 of 2, looking east).



Photo 3. Granite quarry screen plant (contractor operated).

**PHOTOGRAPHS (cont.)**



Photo 4. Alluvial pit screen plant and east end backfill with fines (looking NW).



Photo 5. Granite quarry upper benches being backfilled (dozer work) and hydro-mulched (upper bench).

**PHOTOGRAPHS (cont.)**



Photo 6. Granite quarry upper benches backfilled (center & left) and hydro-mulched (far right).



Photo 7. Nearly completed east alluvial pit backfill (looking east).

**PHOTOGRAPHS (cont.)**



Photo 8. Permit sign (near scale house).



Photo 9. Typical permit boundary marker (NW corner).

**Inspection Contact Address**

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ec: DRMS file