

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:		MINE/PROSPECTING ID#:	MINERAL:	COUNTY:
Bonnie Earl Pit		M-1985-014	Sand and gravel	Bent
INSPECTION TYPE:		INSPECTOR(S):	INSP. DATE:	INSP. TIME:
Monitoring		Amy Eschberger	March 7, 2019	16:20
OPERATOR:		OPERATOR REPRESENTATIVE:	TYPE OF OPERATION:	
Riverside Aggregates, LLC		None	110c - Construction Limited Impact	
REASON FOR INSPECTION:		BOND CALCULATION TYPE:	BOND AMOUNT:	
Normal I&E Program		None	\$14,000.00	
DATE OF COMPLAINT:		POST INSP. CONTACTS:	JOINT INSP. AGENCY:	
NA		None	None	
WEATHER:	INSPECTOR'S SIGNATURE:		SIGNATURE DATE:	
Clear		Curry Erchluger	May 6, 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 Y	(RD) ROADS <u>Y</u>
(HB) HYDROLOGIC BALANCE <u>Y</u>	(BG) BACKFILL & GRADING Y	(EX) EXPLOSIVES <u>NA</u>
(PW) PROCESSING WASTE/TAILING <u>N</u>	(SF) PROCESSING FACILITIES N	(TS) TOPSOIL <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>N</u>	(RV) REVEGETATION Y
(SM) SIGNS AND MARKERS Y	(SP) STORM WATER MGT PLAN <u>N</u>	(RS) RECL PLAN/COMP Y
(ES) OVERBURDEN/DEV. WASTE <u>N</u>	(SC) EROSION/SEDIMENTATION <u>N</u>	(ST) STIPULATIONS <u>N</u>
(AT) ACID OR TOXIC MATERIALS <u>NA</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 was a normal monitoring inspection of the Bonnie Earl Pit (Permit No. M-1985-014) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was notified of the inspection but was unable to attend. The site is located approximately 4.5 miles southeast of McClave, Colorado in Bent County. Access to the site is from the north off of Co Rd JJ to an existing ranch road which is also used by the county to access their adjacent gravel pit (east of the Bonnie Earl Pit) permitted under M-1991-086. The site is situated approximately 500 feet north of the Arkansas River. **Photos 1-7** taken during the inspection are included with this report.

This is a 110c operation permitted for 9.9 acres to mine sand and gravel from an old alluvial terrace (see enclosed site map from permit file). The maximum mining depth was approximately 15 feet. Mining proceeded generally from west to east. Salvaged topsoil and overburden was stockpiled at the northwestern edge of the permit area. The approved post-mining land use for the site is rangeland. The reclamation plan calls for grading pit slopes to 3H:1V or flatter, retopsoiling disturbed land at a depth of 4-6 inches, and revegetating the land with a native grass mixture. The operator took over the permit from the county in 2003 through Succession of Operators No. 2. Since that time, the operator has primarily hauled off from stockpiled material and conducted reclamation activities at the site. The Division approved a surety reduction in 2014 to reduce the required financial warranty from \$28,000.00 to \$6,000.00 to account for only reseeding of the site. However, the Division currently holds a financial warranty in the amount of \$14,000.00 (a surplus of \$8,000.00 from the required financial warranty). Therefore, the operator may provide a revised financial warranty, if desired, to the reduced amount of \$6,000.00.

At the time of the inspection, it was clear and sunny, with some snow remaining on the ground. No standing water was observed on site. A permit sign was posted at the main site entrance. The corners of the permit boundary were marked by T-posts. A pit wall approximately 12-15 feet in height is present along the northern and northwestern edges of the permit area. This pit wall has been graded to the approved final slope configuration of 3H:1V or flatter. All reclamation earthwork has been completed at this site. During its last inspection of the site (on August 14, 2014), the Division observed grasses established throughout much of the permit area. However, there were still some bare patches in vegetative cover on portions of the pit wall and the pit floor which would require reseeding. The operator stated at that time the site was last seeded in 2012, but that it would be seeded again in Fall of 2014, focusing on areas where grass growth was more sparse. During the current inspection. It appeared the pit wall had good grass establishment throughout its length. However, the vegetative cover of the pit wall was difficult to assess in full due to the snow cover. The pit floor also had good grass establishment with little to no weeds. However, there were still some areas on the pit floor where grass growth was observed to be sparse.

The operator should be aware that Rule 3.1.3 requires reclamation to be carried to completion with all reasonable diligence, within five years from the date the operator informs the Division that final reclamation has commenced. According to annual reports submitted by the operator, this site has been in final reclamation for many years now (since 2012), which is well past the five year mark. At this point, all that remains is completing the required revegetation of the site. Pursuant to Rule 3.1.10(1), the land must be revegetated in such a way as to establish a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation, soil amendments, or fertilizer, and is at least equal in extent of cover to the natural vegetation of the surrounding area. The Division believes the site is very close to being successfully revegetated, and with some additional interseeding efforts, could potentially be releasable in another growing season or two. The Division strongly encourages the operator to complete revegetation of the site in accordance with Rule 3.1.10(1) as soon as possible and request a full release of the permit.

During the Division's 2014 inspection of the site, two erosion gullies were observed along a section of the pit wall. At that time, the operator committed to filling the gullies with riprap to help stabilize the pit wall. During the current inspection, the Division noted a pile of riprap stored above this section of the pit wall, but it appeared that riprap had not yet been placed in the gullies. Due to the extensive grass cover now present across this section of the pit wall, and the riprap pile itself acting as a sort of stormwater control by routing stormwater around this portion of the pit wall, the old erosion features did not appear to have worsened since the last inspection. However, Rule 3.1.5(3) requires that all grading be done in a manner to control erosion and siltation of the affected lands, to protect areas outside the affected land from slides and other damage, and that all highwalls be stabilized. Therefore, to properly stabilize the pit wall and prevent any upgradient (potentially offsite) migration of the erosion features, the Division recommends the operator fill the gullies with the riprap, and do so in a way that minimizes disturbance to the existing grass cover.

After conducting this inspection, the Division found the existing bond amount to be sufficient for completing reclamation of the site (reseeding).

In summary, the following tasks must be completed at the site for final reclamation and release:

- Reseed portions of the site where grass growth is sparse
- Fill in the gullies on the pit wall with on-site riprap material

This concludes the report.

PHOTOGRAPHS



Photo 1. View looking north across pit from its southern edge (south-facing pit wall in background). Note sparse grass growth in some areas.



Photo 2. View looking northeast at south-facing pit wall. Note pit wall graded to 3H:1V, but vegetative cover difficult to fully assess in some areas due to snow cover.



Photo 3. View looking north, showing section of pit wall where gullies were observed last inspection, now with good grass growth. Note riprap pile stored at top of pit wall.



Photo 4. View looking north, showing portion of pit wall and pit floor with good grass growth.



Photo 5. View looking northwest across pit (western edge of pit wall visible in background). Note sparse grass growth in some areas of the pit floor.



Photo 6. View looking north across pit from near access road. Note good grass growth present in this area.



Photo 7. View looking south toward access road (where vehicles are parked), showing southern portion of permit area with sparse grass growth.

Inspection Contact Address

Rudy Torres Riverside Aggregates, LLC 1750 County Road HH Lamar, CO 81052

Encl: Site map from permit file

CC: Michael Cunningham, DRMS

