




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: Henderson Development	MINE/PROSPECTING ID#: M-1980-110	MINERAL: Sand and gravel	COUNTY: Adams
INSPECTION TYPE: Monitoring	INSPECTOR(S): Jared L. Ebert	INSP. DATE: December 21, 2017	INSP. TIME: 10:30
OPERATOR: E-470 Public Highway Authority	OPERATOR REPRESENTATIVE: Derek Slack, E-470	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: NA	BOND AMOUNT: \$0.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: December 21, 2017	

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>NA</u>	(RD) ROADS----- <u>NA</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</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>NA</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>NA</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 was an inspection of the Henderson Development site, DRMS permit number M-1980-110, operated by the E-470 Highway Authority (Operator). I, Jared Ebert with the Colorado Division of Reclamation, Mining and Safety (Division or DRMS) conducted the inspection. Mr. Derek Slack representing the Operator accompanied me during the inspection.

This is a 70 acre 112c permitted site in Adams County. Mining was completed years ago and the Operator is reclaiming the site. The approved post mine land use for the site is pastureland.

Backfilling and Grading:

Mining is complete at the site and the pit used to be an open groundwater lake. The reclamation plan for the site called for backfilling the former lake area with inert material. The backfilling operation is complete and the exposed groundwater at the site has been covered up. The area now consists of a graded basin with gentle side slopes that appear to be set at a 3H:1V ratio or less. The majority of the pit slopes appear stable with the exception of a few erosion rills and gullies. One erosion gully on the east-central side of the former pit area near Highway 85 is fairly large, about 4 to 5 feet deep. At the top of this gully a culvert under the highway was observed allowing stormwater discharge into the pit. Mr. Slack indicated they intend to repair the gully and stabilize the area, likely with rip-rap. A few other erosion gullies were observed that will also need to be stabilized.

Reclamation Success:

The majority of the site was recently graded, seeded and mulched. Some vegetation has begun to establish throughout the site. Overall, it appears that reclamation is proceeding in accordance with the approved plan.

Slides and Other Damage:

As indicated above, the Operator will need to stabilize several erosion gullies observed along the pit slopes.

PHOTOGRAPHS



Figure 1. From the entrance of the mine site looking northeast.



Figure 2. From the entrance of the mine site looking north.



Figure 3. From the entrance of the mine site looking south.



Figure 4. Large erosion gully on the east-central pit slope.



Figure 5. From the south end of the site looking north.

Inspection Contact Address

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Enclosure

EC: Derek Slack, E-470, dslack@e-470.com