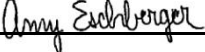




COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

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: Navajo Clay Pit	MINE/PROSPECTING ID#: M-1993-004	MINERAL: Clay (general)	COUNTY: Elbert
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: August 12, 2014	INSP. TIME: 11:40
OPERATOR: General Shale Brick, Inc.	OPERATOR REPRESENTATIVE: Jason McGraw	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$48,297.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: October 14, 2014

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Signs & Markers

PROBLEM/POSSIBLE VIOLATION: Problem: The affected area boundary markers are missing or incorrectly placed. This is a problem for failure to maintain boundary markers around the affected area as required by Rule 3.1.12(2).

CORRECTIVE ACTIONS: The operator shall conduct a survey and replace the boundary markers in the correct location(s) around the area proposed to be disturbed for which a Financial Warranty has been posted. The operator shall provide photo documentation to the Division that this has been done by the corrective action date.

CORRECTIVE ACTION DUE DATE: 11/15/14

OBSERVATIONS

This was a normal monitoring inspection of the Navajo Clay Pit (Permit No. M-1993-004) conducted by Amy Eschberger of the Division of Reclamation, Mining, and Safety (Division). Mr. Jason McGraw represented the Operator, General Shale Brick, Inc. for the inspection. This site is located approximately 12.5 miles north of Kiowa, Colorado in Elbert County, on land owned by Thomas O. Bradbury, Gladys Bradbury, Joan Pecham, and Lawrence C. Phipps III. The site is accessed by Co Rd 174, located north of the site. The post-mining land use is rangeland.

This is a 112c operation permitted for 200 acres to mine clay product for brick manufacturing. This is an intermittent operation. The maximum allowed disturbed acreage at any time for this operation is 25 acres. Mining is to occur to depths of approximately 40 feet. A Technical Revision (TR-01) approved on 06/16/2000 changed the mining direction from west to east, and expanded the size of the stockpile storage area. A Succession of Operators from Robinson Brick Company to General Shale Brick, Inc. was approved for this permit on 06/09/2008.

During the recent inspection, a permit sign was posted at the gated entrance to the site off of Co Rd 174 (Photo 1). However, the sign should have the current Operator's name (not Robinson Brick Company), and "MLRD" should be corrected to "MLRB" for Mined Land Reclamation Board. The permit boundary was delineated by property fencelines. **However, the area proposed to be disturbed by the operation for which the Financial Warranty has been posted was not delineated as required by Rule 3.1.12(2). This will be cited as a Problem in this report, and will require corrective action (see page 1).** No mining activities were occurring during the inspection, and no mining equipment was stored on site. According to Mr. McGraw, product is hauled off from the site every year.

Currently, this operation has disturbed approximately 16 acres. The disturbed area includes an access road that is approximately 0.35 mile long, a rectangular-shaped excavation area (Photo 2), a stockpile pad area constructed out of overburden (located just southeast of the excavation; Photo 3), a haul road approximately 500 feet long that connects the pad area to the excavation area, and a stormwater impoundment pond with a water surface area of approximately 0.2 acres (located southwest of the pad area; Photo 4). Overburden and topsoil stockpiles are stored along the western and northern edges of the excavation and along the eastern and southern edges of the pad area. These stockpiles appeared to be stable with vegetative cover. Two small product stockpiles are stored in the northeastern portion of the pad area (Photo 5).

The excavated pit is approximately 30-45 feet deep. The highwall slope gradients are 1H:1V to 2H:1V. The pit was retaining water during the inspection (Photo 6; also see Photo 2). The retained water has a surface area of approximately 0.4 acre, with a depth of approximately 10-15 feet. The Operator submitted a letter to the Division on May 31, 2006 stating they determined a likely groundwater component to the retained water in the pit as a result of seepage from the Lower Dawson aquifer. It appears that the Operator has a valid well permit (Division of Water Resources Well Permit No. 65324-F) and water rights (Colorado Ground Water Commission Determination No. 1029-BD) to account for the exposed groundwater in the pit.

The Operator has constructed a series of check dams (composed of scrap brick) along the drainage south of the excavation (Photos 7 and 8) to help reduce erosion. This drainage appears to receive a significant amount of stormwater runoff which flows toward the excavated pit. Overall, the structures appear to be effectively reducing erosion of this drainage area. However, many of the structures will need some minor repairs where stormwater flow has washed out their centers.

The stormwater impoundment pond (see Photo 4) located south of the pad area appeared to be functioning properly. According to the inspection report from June 17, 2009, the impoundment was constructed to handle a 10-year rain event. Around that time, the riprap inlet had been reconstructed and a rubber liner was placed under the riprap to help control erosion. During the recent inspection, there was no rubber liner under the riprap, but there did not appear to be any problems with erosion of the inlet. However, the riprap does need some repair as a portion of it has

washed out into the pond (see Photo 4).

Vegetation throughout the site consisted primarily of native grasses and forbs, with some shrubs. Annual weeds present included Kochia and Russian thistle. There were state-listed noxious weeds present in small numbers, mainly near the pond and the excavated pit, including Musk thistle and Field bindweed. The Division recommends the Operator continue to monitor and control these weeds in disturbed areas.

The required Financial Warranty for this permit was increased in 2008 from \$37,750.00 to \$48,297.00, for a maximum disturbed area of 25 acres. No additional acres appear to have been affected since 2008. After conducting the recent inspection, the Division has determined that the current bond is adequate for reclamation of the site.

PHOTOGRAPHS



Photo 1. View of permit sign posted at entrance to site off of Co Rd 174.



Photo 2. View looking southeast at excavated pit located in northwestern portion of permit area.



Photo 3. View looking northeast across stockpile pad area located in southern portion of permit area. Note presence of two small product stockpiles.



Photo 4. View looking southeast at stormwater impoundment pond located southwest of stockpile pad area. Note inlet riprap (at bottom left) needs some repair.



Photo 5. View of two material stockpiles stored in northeastern corner of stockpile pad area.



Photo 6. View looking northeast at excavated pit that is retaining water.



Photo 7. View looking north down drainage south of excavated pit, showing a series of check dams constructed with scrap brick.



Photo 8. View looking south up drainage with check dams.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</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>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(SB) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <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

Inspection Contact Address

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