


**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: ARS Sand and Gravel	MINE/PROSPECTING ID#: M-1980-020	MINERAL: Sand and gravel	COUNTY: Douglas
INSPECTION TYPE: Monitoring	INSPECTOR(S): Peter S. Hays	INSP. DATE: June 14, 2018	INSP. TIME: 11:00
OPERATOR: ARS Sand & Gravel Co, LLC	OPERATOR REPRESENTATIVE: Roy Mayfield	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$82,800.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: June 19, 2018

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: Financial Warranty

PROBLEM: The Division currently holds a financial warranty in the amount of \$82,800.00. The Division recalculated the required reclamation bond based on this inspection pursuant to Rule 4.2.1(2). The Division calculated the required financial warranty at \$170,000.00, an increase of \$87,200.00. A copy of the financial warranty estimate is attached.

CORRECTIVE ACTIONS: The Division will allow the Operator 14 days to review and comment on the estimate prior to issuing the financial warranty increase (SI) notice. The Operator will be required to provide the increase financial warranty amount within 60 days of the notice date pursuant to Rule 4.2.1(2).

CORRECTIVE ACTION DUE DATE: 7/3/18

INSPECTION TOPIC: Signs & Markers

PROBLEM: The mine identification sign was not posted at the south entrance of the mine site from Roxborough Park Road. This is a problem for failure to post a mine identification sign as required by Rule 3.1.12(1).

CORRECTIVE ACTIONS: The Operator shall, at the entrance of the mine site, post a sign which shall be clearly visible from the access road with the following: the name of the Operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit

number. The Operator shall submit photo documentation that a proper sign has been posted by the corrective action date.

CORRECTIVE ACTION DUE DATE: 7/19/18

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM: The Operator is actively backfilling portions of the west highwall and has backfilled an area southwest of the asphalt recycling area with imported fill material. The activity is not permitted under the approved Mine Plan. The current Mine Plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c)(VI). The Operator must provide sufficient information to describe or identify how the Operator intends to conduct the operation.

CORRECTIVE ACTIONS: The Operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved mine plan to reflect existing and proposed activities by the corrective action date. The technical revision submittal must comply with the requirements of Rule 3.1.5(9) for the fill material generated outside of the approved permit area to backfill the west highwall and for all future imported material at the site.

CORRECTIVE ACTION DUE DATE: 8/20/18

OBSERVATIONS

The ARS Sand and Gravel site was inspected by Peter Hays with the Division of Reclamation, Mining and Safety (Division/DRMS) as part of the Division's monitoring inspection program. Mr. Roy Mayfield with ARS Sand and Gravel Co, LLC was present during the inspection. The site was previously inspected by the Division on November 25, 2014. A copy of the inspection map created based on the observations from this inspection is attached.

Mining Plan:

The Lawrence Pit is located approximately 2 miles south of Chatfield Reservoir and east of Roxborough Park Road. The site is permitted as a 114.06 acre 112 Construction Materials operation. The site was active during the inspection. Two recent areas of mining excavation were observed; an area west of the AM-05 disturbance area and along the west highwall south of the scale house. The west highwall excavation was performed by a dozer pushing material from west to the east creating a stockpile. The west highwall was estimated at a 2H:1V grade and 35 feet in height. The southeast corner of the pit floor contained the concrete and asphalt recycling plants and stockpiles.

The Operator was actively importing material to backfill portions of the west highwall and has backfilled an area southwest of the asphalt recycling area with imported fill material. The two backfill areas are identified on the attached inspection map. The approved Mine Plan submitted for the last two amendments, AM-04 and AM-05, does not discuss the backfilling of the site with imported fill. Additionally, the approved Reclamation Plan map submit with AM-05 does not indicate any backfilled areas. As cited as a problem, the Operator must submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved Mine Plan to reflect existing and proposed activities by the corrective action date. The technical revision submittal must comply with the requirements of Rule 3.1.5(9) for the fill material generated outside of the approved permit area to backfill the west highwall, the area southwest of the asphalt recycling area and for all future imported material at the site.

The Operator stated a new road was planned to be constructed from Titan Road to a new Shea Homes subdivision northwest of the mine site. A new access road to the mine site would be constructed from the new roadway. The Division will require the Operator to submit a technical revision to update the location of the site access road once the new roadway configuration is known. The new roadway will parallel the ARS property's west boundary. A visual berm will be constructed east of the new roadway. The Operator plans to construct the new access road east of the visual berm. This will allow the west portion of the site to be mined, which is the current location of the access road.

Sign and Boundary Markers:

As cited as a problem above, the required entrance sign was not posted at the south access road from Roxborough Park Road as required by Rule 3.1.12. The Operator shall, at the entrance of the mine site, post a sign which shall be clearly visible from the access road with the following: the name of the Operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit number. The Operator shall submit photo documentation that a proper sign has been posted by the corrective action date. The Operator will be required to move the sign to the new access road location when the current south entrance from Roxborough Park Road is no longer used by the operation as discussed above.

Reclamation Plan:

The approved post-mining land use for the site is rangeland. The area mined by the Operator resulting in the submittal of AM-05 has revegetated with volunteer species. The area appeared stable and no erosion features were observed. The Operator will be required to revegetate the area with the approved reclamation seed mixture during the final reclamation of the site. Two stockpiles of topsoil are located at the site; between the current access road and the west highwall and in the southeast corner of the site. The stockpiles were well-vegetated and stable. The Operator stated the site is being evaluated as a reservoir for the Sterling Ranch development to the south of the site. The eastern boundary would be raised in elevation and a clay liner would be constructed around the perimeter of the pit if the Operator decides to construct a reservoir. The Division will require the Operator to submit an amendment application, pursuant to Rule 1.10.1, to change the post-mining land use to developed water resource prior to constructing the reservoir.

Financial Warranty:

The Division currently holds a financial warranty in the amount of \$82,800.00. The Division recalculated the required reclamation bond based on this inspection at \$170,000.00, an increase of \$87,200.00 pursuant to Rule 4.2.1(2). The Division updated the financial warranty calculation for AM-05. The Division corrected the following aspects of the AM-05 estimate; the highwall length was reduced from 4475 feet to 3000 feet, the average highwall height was increased from 15 feet to 35 feet and the average depth of topsoil replacement was increased from 3 inches to 9 inches. A copy of the financial warranty estimate is attached. The Division will allow the Operator 14 days to review and comment on the estimate prior to issuing the financial warranty increase (SI) notice. The Operator will be required to provide the increase financial warranty amount within 60 days of the notice date pursuant to Rule 4.2.1(2).

Photographs taken during the inspection are attached.

PHOTOGRAPHS



ARS Sand and Gravel mine sign at north entrance



Mining disturbance west of AM-05 area



AM-05 disturbance area, self-revegetated



Mining area in west highwall and stockpile looking northeast



View of concrete and asphalt recycling activities looking northeast



View of concrete and asphalt recycling activities looking north



View of backfill area located south of scale house looking west



View of the backfill area and mining excavation in the west highwall looking southwest

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>PB</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>PB</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</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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ARS Sand & Gravel Co LLC
8505 W. Mtn. View Ln.
Littleton, CO 80125

Enclosures – Inspection Map, Financial Warranty Estimate

Ec: Michael Cunningham, DRMS

ARS Sand and Gravel

M-1980-020

June 14, 2018 Inspection Map

Legend

- AM-05 Area
- Approx. Future Road Location
- Asphalt Recycling Area
- Backfilled Area
- Concrete Recycling Area
- Future Mining Area
- M-1980-020 ARS Sand and Gravel
- Permit Boundary
- Recent Mining Areas
- Topsoil Stockpile

M-1980-020 ARS Sand and Gravel

Google Earth

1000 ft

