


**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: Schumacher Pit	MINE/PROSPECTING ID#: M-1995-063	MINERAL: Sand and gravel	COUNTY: Logan
INSPECTION TYPE: Monitoring	INSPECTOR(S): Jared L. Ebert	INSP. DATE: December 15, 2016	INSP. TIME: 11:05
OPERATOR: Logan County	OPERATOR REPRESENTATIVE: Rob Quint and Betty Green	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$0.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Cloudy	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: December 22, 2016

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: Hydrologic Balance**PROBLEM/POSSIBLE VIOLATION:** Problem: Erosion gullies and ruts were observed on-site. This is a problem at this time for failure to protect the affected land from erosion pursuant to C.R.S. 34-32.5-116 (4) (j).**CORRECTIVE ACTIONS:** The operator shall provide photo documentation to the Division verifying erosion gullies and ruts have been repaired, and that the site has have been reconstructed and stabilized to prevent erosion damage by the corrective action date.**CORRECTIVE ACTION DUE DATE:** 3/31/17

OBSERVATIONS

This was a monitoring inspection of the Schumacher Pit, DRMS Permit No. M-1995-063, operated by Logan County. I, Jared Ebert of the Colorado Division of Reclamation, Mining and Safety conducted the inspection. The weather was cloudy and cold at the time of the inspection. Mr. Rob Quint and Betty Green with Logan County accompanied me during the inspection. Using the ArcCollector Application, I measured the affected area to be 13.34 acres. Please see the attached map.

Backfilling and Grading:

A large pit excavation has been created at the site. The pit daylights to the south and partially to the west. The western pit slopes have been graded to a 4:1 slope or less. The northern pit slopes were measured to be at a 3:1 slope. The eastern pit slope has been graded to a 4:1 slope or less. A large pile of mined material is located within the pit area near the entrance to the mine site. The reclamation plan calls for grading the mine slopes to a 4:1 angle. The northern slopes are steeper than a 4:1. This issue was discussed with Mr. Quint and Mrs. Green. They indicated that they would eventually like to mine through the northern permit boundary. This activity would connect this permitted site to the Schumacher Pit #3 operations (M-2006-072) that is directly adjacent to this site to the north. However, Logan County would have to submit and receive approval of a Technical Revision to the mining and reclamation plan prior to mining in this area.

Fish and Wildlife:

According to the permit, a raptors nest was observed at the site in one of two trees within the western side of the permit boundary. The Division did not observe any nesting activity within the trees.

Hydrologic Balance:

This is a dry pit operation.

The Division observed several gullies that have formed at the southern end of the site. The drainage from the affected area drains to this area. These gullies will need to be repaired and erosion control and siltation protection measures should be implemented in order to ensure off-site sedimentation is not occurring. This issues was discussed with Mr. Quint and Mrs. Green, and it was agreed that erosion control waddles, silt fence or straw bales could be installed in this area and or a small sump could be used to contain the sediment. The Division will require Logan County to repair these gullies and stabilize the area and install erosion control features.

Gen. Compliance With Mine Plan:

According to the approved mining and reclamation plan, 2 to 3 feet of overburden will be removed and retained to be used when re-sloping. Also, the plan indicates that no topsoil exists at the site so none was to be removed. A large stockpile of mined material is located on the pit floor and a stockpile of either overburden or topsoil is located near the western end of the site near the entrance. With the exception of the north-slope, the pit slopes have already been mined and graded to a 4:1 slope. Logan County will need to use caution that either enough overburden material remains on the site to grade the northern slope to the required angle or they will need to revise the mining and reclamation plan in order to leave a lessor slope.

Off-site Damage:

The Division did not observed obvious off-site damage, however the snow conditions limited the ground

visibility.

Revegetation:

The northern portion of the mine area has been graded, however it does not appear topsoil has been replaced and thus the affected area has not been revegetated.

Sediment Control:

Please see the discussion regarding the hydrologic balance regarding sediment control.

Slides and Other Damage:

Slides and damages were not observed.

Signs and Markers:

The mine entrance sign was in place and the permit boundary was marked with wooden and metal t-posts.

Topsoil:

The mining and reclamation plan indicated that no topsoil was present at the site, and that none would be removed. However, a pile of overburden or topsoil was located on the western end of the site. The stockpile appeared stable and vegetated.

PHOTOGRAPHS



Figure 1. From the entrance to the mine site looking northeast. Topsoil/overburden stockpile visible.



Figure 2. From the northwest corner looking east.



Figure 3. From the southwest corner of the pit looking north.



Figure 4. Erosion control gullies at the south end.

GENERAL INSPECTION TOPICS

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

(AR) RECORDS-----	<u>NA</u>	(FN) FINANCIAL WARRANTY-----	<u>NA</u>	(RD) ROADS-----	<u>NA</u>
(HB) HYDROLOGIC BALANCE-----	<u>PB</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>	(CI) COMPLETE INSP----	<u>NA</u>
(ES) OVERBURDEN/DEV. WASTE-----	<u>NA</u>	(SC) EROSION/SEDIMENTATION---	<u>Y</u>	(RS) RECL PLAN/COMP--	<u>NA</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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Logan County
315 Main Street., Ste. 2
Sterling, CO 80751

Enclosure: 1.) December 15, 2016 Inspection Report Map

CC: Betty Green, Logan County

Schumacher Pit, M-1995-063, December 15, 2016 Inspection

