

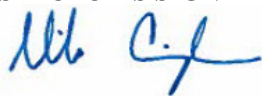
**COLORADO**Division of Reclamation,
Mining and Safety

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: Gloria Z Mine | MINE/PROSPECTING ID#: M-1984-094 | MINERAL: Sand, gravel & gold | COUNTY: Park |
| INSPECTION TYPE: Surety-Related Inspection | INSPECTOR(S): Michael A. Cunningham | INSP. DATE: September 7, 2017 | INSP. TIME: 09:00 |
| OPERATOR: Sanborn Sand and Gravel/dba Golden Cross Aggregates, Inc. | OPERATOR REPRESENTATIVE: Mike Pfister | TYPE OF OPERATION: 112c - Construction Regular Operation | |

| | | |
|---|---|--|
| REASON FOR INSPECTION: Normal I&E Program | BOND CALCULATION TYPE: Complete Bond | BOND AMOUNT: \$108,234.00 |
| DATE OF COMPLAINT: NA | POST INSP. CONTACTS: None | JOINT INSP. AGENCY: None |
| WEATHER: Clear | INSPECTOR'S SIGNATURE:  | SIGNATURE DATE: September 26, 2017 |

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: Gen. Compliance With Mine Plan**PROBLEM/POSSIBLE VIOLATION:** Problem: The Operator has failed to construct the required benches in the highwall. This is a problem pursuant to C.R.S. 34-32.5-124 of the Construction Material Rules and Regulations for failure to follow the conditions of a permit.**CORRECTIVE ACTIONS:** The Operator shall reduce the height of all highwalls to less than 25ft. or construct the required benches as approved under Technical Revision No. 3. The Operator shall complete the corrective action on or before the corrective action date.**CORRECTIVE ACTION DUE DATE:** 10/27/17**INSPECTION TOPIC:** Revegetation**PROBLEM/POSSIBLE VIOLATION:** Problem: There are state-listed noxious weeds present on site. This is a problem for failure to employ weed control methods for state listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Section 3.1.10 (6) of the rule.**CORRECTIVE ACTIONS:** The operator shall develop a weed control and management plan. The plan should be developed in consultation with the county extension agency, or weed control district office and should include specific control measures to be applied, a schedule for when control measures will be applied and a post-treatment monitoring plan. The weed control plan shall be submitted to the Division as a Technical Revision to the approved plan with the appropriate Technical Revision fee of \$216.00 by the corrective action date.**CORRECTIVE ACTION DUE DATE:** 10/27/17

OBSERVATIONS

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Mike Pfister with Golden Cross Aggregates, Inc. was also present for the inspection. The Gloria Z Mine is located approximately one mile northwest of Fairplay, CO on the south side of the Middle Fork of the South Platte River. The site is permitted for 45.04 acres and the post-mining land use is rangeland and developed water resource.

On April 17, 2017, the Division received a Succession of Operators application to transfer the Reclamation Permit for the Gloria Z Mine from Sandborn Sand and Gravel to Playfair Land Company, LLC. The application was found to be complete on June 26, 2017. The purpose of the inspection was to evaluate the adequacy of the financial warranty. The Division currently holds a financial warranty in the amount of \$108,234.

Financial Warranty:

The Operator has imported tree stumps and slash (vegetation) into the site. The vegetation stockpiles cover an area of 1.28 acres and the stockpiles are between 6' to 8' in height. The Division first documented the presence of the imported vegetation during a monitoring inspection in 2012. The Reclamation Plan calls for mulching all of the vegetation for use during final reclamation of the site. The current financial warranty includes \$2,000 to mulch the materials. The imported vegetation has been handled numerous times and is now mixed with soil, rock and refuse. The majority of the vegetation would need to be screened before it could be mulched. Therefore, this material is not suitable for use in final reclamation. In addition, the \$2,000 which the Division holds for mulching does not account for the cost to screen the material prior to mulching. The financial warranty will be adjusted to account for the removal and proper disposal of this material from the mine site.

The Operator has imported numerous structures, vehicles, boats, equipment and other miscellaneous refuse to the mine. These items are stored on the south side of the mine site, adjacent to the Operator's residence. The Division has previously documented the presence of refuse at the site and included the cost of removing refuse in past financial warranty calculations. The removal and proper disposal of these items must be accounted for in the financial warranty calculation. During the inspection, the Division inventoried all of the items being stored at the mine site and calculated their approximate dimensions. A detailed accounting of the items which will be bonded for will be included in the financial warranty calculation. The Division did not include any pieces of equipment or other items which could reasonably be used in the mining operation.

In 2016, the Operator increased the financial warranty from \$82,300 to \$108,234 to account for an increase in disturbance at the mine site. The bond increase was based on a total disturbed area of 34.11 acres. The maximum allowed affected area under the Gloria Z Mine is 37.11 acres. The Division determined the Operator has currently affected 37 acres of land. The costs associated with topsoil replacement and revegetation will be adjusted to account for the increase in affected land.

Gen. Compliance With Mine Plan:

Active mining operations have shifted from the perimeter of the mine site to the interior. The active excavation is located towards the center of the mine site and a single gold recovery plant was being operated at the time of the inspection. The pit accounts for 2.5 acres of disturbance and mining operations have reached a depth of approximately 60 ft. The highwalls within the active pit area are near vertical. Under Technical Revision No. 3, the Operator committed to maintain highwalls at 80 degrees from horizontal for a

vertical distance of 25 ft. Highwalls which exceeded 25 ft. would have a horizontal bench of a minimum of 15 feet in width. The Division did not observe any benches on the portions of the highwall which were over 25 ft. in height. The failure of the Operator to adhere to the approved Mining Plan with respect to highwall configuration has been cited as a problem and will require corrective action. Please see the first page of this report for additional information.

The Mining Plan states that at any given time the active pit will require 20,000 CY of backfilling. The Reclamation Plan calls for reclaiming the site to approximate original contour. Therefore, the reclamation of the active pit area would not be limited to reducing highwalls, but would require backfilling the entire excavated area. The Division has determined the Operator has exceeded the maximum backfill limit of 20,000 CY for the active pit area. The financial warranty will be adjusted to account for the increased volume of backfilling required for reclamation.

Reclamation Success:

The Reclamation Permit calls for performing concurrent reclamation of the site. The Operator has recently reclaimed the former Plant Settling Pond located in the northwest corner of the site. Overburden has been replaced over an area of 3 acres. The outward facing slopes of the reclaimed area ranged between 3H:1V and 2H:1V. As previously noted, the Reclamation plan calls for reclaiming the site to approximate original contour with the majority of slopes at 5H:1V. In addition, the Reclamation Plan states there may be some slopes which are reclaimed to 2.5H:1V. The Reclamation Plan Map depicts the area which was recently reclaimed as having slopes closer to 5H:1V. The outward facing slopes of the reclaimed area will need to be reduced in order to comply with the approved Reclamation Plan. The grading work will need to be conducted before the Operator proceeds with topsoil replacement and revegetation.

Revegetation:

The Division observed chamomile and musk thistle throughout the site. The Operator submitted a general weed control plan under Amendment No. 2. The weed control plan does not contain specific management objectives for the noxious weeds observed on site. The presence of state listed noxious weeds at the mine has been cited as a problem and will require corrective action by the Operator. Please see the first page of this report for additional information.

Roads:

During the inspection conducted on June 20, 2017, the Division observed a new road in the southeast corner of the site. The road was not accounted for in the Mining Plan and as a result the Division required the Operator to submit a Technical Revision addressing the new road. The Operator submitted a Technical Revision application on August 22, 2017 in response to the problem citation. The Division inspected the road in the southeast corner of the site and found there was no longer a defined road in this area. Additional areas to the south of the road have been affected by the mining operation. In addition, an earthen berm has been constructed across the road. The Mining Plan Map depicts this area as 'Old Pre-Law Hydraulic Mining Disturbance'. The Division will address this matter through the Technical Revision (TR05) which is currently under review. The financial warranty will be adjusted to account for the additional disturbance at the mine.

Notice of an increase to the financial warranty will be sent under separate cover.

This concluded the inspection.

PHOTOGRAPHS



1. Miscellaneous refuse.



2. Vehicles and structures.



3. Vehicle parts.



4. Tires.



5. Vehicles.



6. Tree stump and slash stockpile. (Note: soil and rock intermixed with vegetation)



7. Tree stump and slash stockpile. (Note: soil and rock intermixed with vegetation)



8. Tree stump and slash stockpile. (Note: soil and rock intermixed with vegetation)



9. Gold recovery plant and settling ponds.



10. Highwall. (Note: no benches constructed in highwall)



11. Outward facing slope of reclaimed plant settling ponds. (Note: the slope is steeper than 5H:1V)



12. Outward facing slope of reclaimed plant settling ponds. (Note: reclaimed slopes are at 3H:1V)



13. Top of reclaimed plant settling ponds.



14. Water infiltration pond.



15. Return water from the gold recovery plant.



16. Musk thistle.



17. Musk thistle.



18. Chamomile.



19. Chamomile.



20. Earthen berm across newly constructed access road.



21. Recently affected lands in area designated as 'Old Pre-law Hydraulic Mining Disturbance.

GENERAL INSPECTION TOPICS

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

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

Mike Pfister
Sanborn Sand and Gravel/dba Golden Cross Aggregates, Inc.
P.O. Box 1180
Alma, CO 80420

CC: Wally Erickson, DRMS
Jodi Fitzpatrick, Sanborn Sand and Gravel/dba Golden Cross Aggregates, Inc.