Locatable Minerals Site Inspection

U.S. Department of the Interior
Bureau of Land Management
Royal Gorge Field Office

Date:09/27/2016 Time:12:05-12:30 p.m. Weather: Clear Inspection Purpose: General	Project Name: Maars Memorial Case Number: COC 068246 Operator: Colorado Quarries Location: Southeast of Cotopaxi
Attendees BLM: William Jenkins Operator(s): None Other(s): N/A	Project Status:Active Project Type: Plan Of Operations Occupancy: No
General Compliance Compliance with the filed Plan of Operations, and 43 CFR 3809 (in particular the performance standards outlined in 3809.420).	In general, the operation is in compliance with the Plan on file with BLM. x **Yes** ☐ **No** ☐ **N/A** BLM has a copy of the Mine Plan submitted to DRMS in 1977. In general, the operation and disturbances on site coincide with the method of prospecting, mining, and access described in the Plan. x **Yes** ☐ **No** ☐ **N/A**

SITE MANAGEMENT

Site Conditions ☐ Housekeeping ☐ Access (clear, bermed, signed, accurate with Plan?) ☐ Acreage	Good Housekeeping. The acreage of the site has not changed since the previous inspection (the site is only 2.0 permitted acres).
Claim Markers ☐ Claim Signs ☐ Corners ☐ Discovery Post	☐ **N/A** The sign at the entrance with the quarry name and DRMS permit # was propped against a rock pile, and bears an incorrect permit number - M1977532SG (the correct DRMS number is M-1977-168). The southeast permit corner can be seen from the eastern working area.
Erosion Control ☐ Grading ☐ Vegetation ☐ Drainage Control	☐ **N/A** No standing water or recent erosion was observed during the inspection. There was evidence of water

☐ Best Management Practices (e.g.)	pooling in the first (western) cut as you enter the site. It appears that it pools during rain events and then drains towards the road, and out the far hillside. This could pose an undercutting issue in the future. Additionally, there has been a significant amount of erosion to the site's access road since the previous inspection.
<u>Materials Management</u> -Topsoil ☐ Location ☐ Stability ☐ Best Management Practices -Overburden ☐ Location ☐ Stability ☐ Best Management Practices -Waste Rock/Fines ☐ Location ☐ Stability ☐ Best Management Practices	☐ **N/A** Very little topsoil is present, and there is a small stockpile located on the western side of the mine. The operator is blasting a granite outcrop/dome as needed, and does not have any overburden. Undesired granite boulders (and remnants from past mining activity) are piled towards the mine's eastern boundary.
<u>Container/Tank Management</u> ☐ Substance ☐ Storage Container/Tank (overall condition, tank capacity, secondary containment) ☐ Spill Contingency (fixed in a timely manner? Or controlled to prevent hazardous conditions?) ☐ Substance appropriately labeled? (NFPA, SDS accessible) ☐ Best Management Practices	x **N/A** No leaks or containers were observed during the inspection.
<u>Weed Management</u> ☐ Weed Control Plan ☐ Control Methods ☐ Type & Percent Surface Cover ☐ Best Management Practices (e.g.)	☐ **N/A** Minor amounts of Mullein present along the access road.
<u>Highwall/Working Face Conditions</u> x Working ☐ Reclaimed -Ravelling or rock fall present -Tension cracks -Benches (are they clean?) -Adequate ingress/egress -Measurements (concurrent with ops - height, depth, slope)	☐ **N/A** The operator currently works the highwall east of the underground portal. When they are working, the operator removes material from the top down. There appears to be adequate ingress and egress away from the highwall (there is an open floor area), and the operators are not present below the highwall when they are working.

General Safety Conditions	☐ **N/A**
☐ Temporary Fencing ☐ Flagging ☐ Signage	There is no temporary fencing or flagging on site. However, the site is accessed through a locked gate.

PLAN OF OPERATIONS

Operations	
☐ Location ☐ Does their Plan include an occupancy? (location of temporary/permanent structures) ☐ Any observed impacts outside of Plan?	The operator is working on the highwall east of the mine portal, and no underground ops are taking place. Their Plan does not include an occupancy. There were no observed impacts outside of the filed Plan seen during the inspection.
Operating Practices ☐ Mining Methods (Surface or Underground) ☐ Equipment (types, concurrent with Plan, good working condition) ☐ Surface Disturbances (size, and removed quantity) ☐ Processed Material Management (location, berms, HPDE lining)	Drilling and Blasting are used to loosen rocks from the face. Then the operator uses a loader to load a haul truck. Surface disturbance (current and historic) is limited to the east and west highwalls plus an inactive portal.
Quality Assurance/Monitoring ☐ Reporting Procedures ☐ Systematic Monitoring (frequency, sampling procedures, adverse results response, monitoring programs - air, water, revegetation, stability, noise, etc.)	x **N/A**
Drilling ☐ Method (Air, Fluid) ☐ Drill Pads (location) ☐ Mud Pits (location, containment) ☐ Drill Hole Plugging and Re-Contour	☐ **N/A** The operator keeps a small drill onsite, which is used for drilling blast holes. The operator uses the drill to bore horizontally into bedrock for blast holes, so there are no pads, or mud pits onsite.
Underground Operations ☐ Groundwater (Is there water coming from the adit?) ☐ General Safety (roof stability, ventilation, cribbing condition, monitoring practices, etc.) ☐ Dimensions (Have the adits, shafts, trenches been advanced?)	x **N/A** The operator does not work in the existing underground portal.
Water Management ☐ Mitigation Measures (dewatering/pumps, sediment containment, chemical treatment systems, storm water runoff controls)	x **N/A**

☐ Ditch/Impoundment Capacity (will they contain the volume generated by a 100 year 24 -hour rain event?) ☐ Impoundment Structures (Water, tailings ponds, etc.) - adequate freeboard - dimensions, stability - leaking at base?	
Ore Processing ☐ Non-Chemical Processing (crushing, screening, washing) - methods, equipment condition, water source ☐ Chemical Processing (leaching, milling) - methods, chemicals involved (Xanthates, Cyanide, etc.), spill contingency	x **N/A**

Actions to be taken by the Operator Operators should read this report carefully because it may require corrective action and/or response to the BLM in order to avoid consideration of possible enforcement action.	The operator should address the hole that has eroded through the site's access road.
General Comments Other observations and notes from the inspection	- There has been a significant amount of erosion to the site's access road since the previous inspection (See Photos).
Date Inspection Shared with CDRMS:	**Date Inspection Shared with Operator:**

Photo Summary

Photo 1: The erosion adjacent to the locked gate. Note: insects (yellow soldier beetles) have hatched in the area around the new pond.

Photo 2: Erosion along the access road further east of the locked gate on private land (on the way to the site). Note the pre-existing PVC pipe which the private landowner might have installed to decrease overland flow.

Photo 3: The DRMS sign with the incorrect permit number.

Photo 4: An overview of the mine site, facing west. Note the drill that is used for blasting.

Photo 5: The active highwall, east of the mine portal.

Photo 6: The inactive mine portal.

Photo 7: The inactive highwall on the west of the site, where rain water pools prior to flowing into the hole going through the access road.