



**Minerals Plan of Operations Inspection**  
**U.S. Department of the Interior**  
**Bureau of Land Management**  
**Royal Gorge Field Office**



The BLM has conducted an inspection of your operations, which concludes whether the documented operations on file with BLM are compliant or non-compliant. Any non-compliance issues are reported in the Additional Actions Necessary section of this inspection.

**Operation Type:** ☐ 3600 ☐ 3809 w/ occupancy ☒ 3809 w/o occupancy

<b>Date:</b> Mar 7, 2019 <b>Time:</b> 11:03 <b>Weather:</b> Cloudy , Precipitation	<b>Operation Name:</b> 1st Bentonite <b>Case Number:</b> COC-051303 <b>CDRMS Number:</b> M-1977-231
<b><u>Attendees</u></b> <b>BLM:</b> A. Sanderson & J. Rambo <b>Operator(s):</b> None present <b>Other(s):</b> None	<b><u>General</u></b> <b>Operation(s) are in compliance with documentation on file</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <b>Operation(s) and disturbance on-site coincide with the operations and access on file</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

**Inspection Purpose:** ☐ Pre-Operations ☐ General ☒ Final ☐ Trespass ☐ Complaint

Inspection Items	Compliant	Non-Compliant	N/A
<b>1. Method of Operations</b>			
Drilling, Trenching/Surface Excavation & Underground Excavation			
<b>a. Drilling</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Pad Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Mud Pits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Borehole Abandonment/Monitoring Well Conversion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Complete <input type="checkbox"/> Incomplete			
iv. Pad Reclamation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b. Trenching/Surface Excavation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Trench/Excavation Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Trench/Excavation Stability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Trench/Excavation Reclamation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c. Underground Excavation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Portal Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Blasting Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Portal Reclamation/Conversion of Entry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Site Conditions</b>			
<b>a. Material/Waste Rock Management</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>b. Erosion &amp; Stormwater Control</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>c. Man-made Structures</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>d. Weed Management</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>e. Safety Conditions</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>f. Interim Reclamation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Inspection Items	Compliant	Non-Compliant	N/A
<b>3. Housekeeping</b>			
a. Container Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Spills/Leaks Observed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Hazardous Substances/POL Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. General Housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>4. Access</b>			
a. Road Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Berms	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Security	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Surface Water Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5. Quality Assurance/Quality Control</b>			
a. Routine Site Conditions Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Air, Water, Noise, Other Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Monitoring Reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Regulatory Submittals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other Agency/Entity Permits	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6. Final Reclamation</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Exploration/Sampling Location	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Access Roads/Trails	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Grading	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Revegetation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Removal of Structures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Free of Trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Additional Actions Necessary

Non-Compliance Issues to be addressed by Operator

- **6.b & 6.d** - Reseeding was conducted during the fall (October). A lack of vegetation remains an issue along the access/haul road, N/NE staging area and southern detention pond. The minimal vegetation is causing soil instability in these areas.
- **6.e** - approximately 6'' of standing water was observed in the detention pond located along the SW boundary. Storm/melt water flow was blocked as a result of sediment buildup along the diversion channel entrance (ref. images 2-5). BLM suggests to remove the sediment in order to stimulate drainage flow. The primary type of geological material is bentonite (ref. image 7) which could act as an impermeable boundary, therefore causing the standing water. BLM will continue to monitor this during routine site visits/inspections.

#### Final Notes

General Comments:

- 1' wide gullies located along the edges of the detention pond. After referencing the surrounding geology, this was determined to be naturally occurring (ref. image 11).
- Tentative inspection scheduled for 07/23/19 to inspect vegetation growth, soil stability and ponding water.

Proprietary Information: none

Date inspection shared with CDRMS: 03/12/19

Date inspection shared with Operator: 03/12/19

### Images

**Image 1:**



Comment: Final reclamation sign at entrance and the access road into the reclamation site.

**Image 2-5:**







Comment: Detention pond and diversion channel blockage (image 2; ref. red arrow); close-up of drainage channel sediment blockage.



**Image 6:**



Comment: View to the south of the partially-vegetated access road. Check for increased vegetative growth during next inspection.

**Image 7:**



Comment: Bentonite float and insitu material



**Image 8-9:**



Comment: Eastern flowing drainage channel trending down gradient toward Arkansas River.

**Image 10:**



Comment: Dominant natural vegetation and grasses



**Image 11:**



Comment: Natural erosion (ref. red arrow) located around south boundary

**Image 12-13:**



Comment: Access/Haul road trending east-west down-gradient. Dependent on vegetation growth during spring/summer, road and staging area may need to be ripped and reseeded again.



**Image 14:**



Comment: Staging area located along the N/NE boundary. Staging area still lacks adequate vegetation

**Image 15:**



Comment: Reclaimed highwall; adequate revegetation throughout this area of the site.