

| General Information    |                                     |
|------------------------|-------------------------------------|
| Date                   | 11/6/2017                           |
| Project Name           | Rifle Quarry                        |
| Operator               | Colorado Lien Company               |
| Serial Number          | COC-077876                          |
| Project Classification | Plan of Operations                  |
| Project Location       | T4S R92W Sec15, Garfield County     |
| Inspection Purpose     | Reclamation site inspection         |
| Time Period Onsite     | 1 hour                              |
| Attendees              | Jessica Lopez Pearce, BLM Geologist |

## **New Remarks**

On November 6, 2017, I inspected the Colorado Lien Company Rifle Quarry to check on final reclamation progress of the remaining 1.65 permitted acres and ensure compliance with the Final Reclamation Plan (which was authorized July 1, 2016). The weather was partly cloudy with temperatures in the 50's.

I observed the access road blocked per the Final Reclamation Plan. There was approved alternative growth media and mulching material (a combination of fish emulsion solids, spent grain solids, spent potato mash solids, mulch, and topsoil) on the surface of the road; however, it had been washed away in some areas. Grasses and forbs from the previous growing season were observed on the road bed; there was more vegetation along the side and down the middle of the old road than in the wheel ruts. Signage was present at the southeast corner of the main quarry area.

The 1.65-acre site includes a highwall on the north side and a backfilled and regraded area to the south. The backfilled quarry floor terminates to the east with an east-facing, 20-foot high, approximately 2:1 slope. There is a bermed access route up the eastern slope to the recontoured quarry floor. The eastern slope, the quarry floor, the northern upper access bench, as well as most of the remaining quarry area was covered in the alternative growth media and mulching material. However, some of this material had washed away. Vegetation from the last growing season covered approximately 40% of the recontoured quarry floor. A robust variety of Western Yarrow was prevalent on the reclaimed quarry floor and is an allowable part of the 2016 BLM-approved seed mix. Mullein was also observed throughout the quarry. Future inspections will monitor the revegetation within the reclaimed area.

There were several 24" tall sediment control windrows running perpendicular to the west-to-east gradient on the quarry floor. These windrows were fairly effective at trapping sediment and eroded growth media. The vegetation on the quarry floor also appeared to prevent erosion. There was some evidence of slight gullying/rilling and erosion of material in channels on the quarry floor. The channelization and erosion wasn't extensive, but additional erosion could occur if measures are not taken. Future inspections will continue to monitor effectiveness of sediment control.



## **Recommended Changes to Operations or Corrective Actions Needed**

• No corrective actions at this time.

## **Photo Summary**



Photo 1: Looking west at the barricaded access road. There is evidence of vegetation from the last growing season in the middle and on the sides of the road.





Photo 2: A close up of the alternative growth media and vegetation on the access road (pen for scale). The alternative growth media appears to be washing away.



Photo 3: Looking west at the sediment control windrows that run north-south (right to left) across the quarry floor. Vegetation appears sparse in this area of the quarry floor.





Photo 4: Close-up of unknown plant species. Pen for scale.



Photo 5: Looking southeast from the reclaimed upper quarry bench. Note the slight gullying beginning to form around the northern (left) side of one of the windrows. The accumulated material appears to consist of sediment and eroded alternative growth media.





Photo 6: Looking north from the south side of the quarry floor to the upper quarry bench and highwall.