

February 20, 2003

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor
Pamela Grubaugh-Littig, Permit Supervisor

FROM: Priscilla W. Burton, Sr. Reclamation Specialist/Soils
Jerriann Ernstsens, Reclamation Biologist

RE: Technical Field Visit, Reference Area Locations and Condition, Consolidation
Coal Company, Emery Deep Mine, C/015/015

Other Attendees: Mr. James Brown, District Conservationist,
Natural Resources Conservation Service (NRCS)

Date & Time: February 12, 2003. 9:00 a.m. – 12:00 p.m.

PURPOSE:

To determine location of reference areas and observe their condition.

OBSERVATIONS:

Plate VIII-1 of the Mining and Reclamation Plan illustrates the location of three reference areas for the Emery Deep mine. The access to the reference areas was difficult to discern from the map. Mr. James Brown of the Roosevelt NRCS office did the last evaluation of the three reference areas in 2001. His evaluation is found in Chapter VIII, page 25D of the MRP. Mr. Brown accompanied us to the three reference areas and discussed the condition of the reference areas. All reference areas were fenced.

TECHNICAL FIELD VISIT

To arrive at the Mixed Desert Shrub (R-MDS) reference area, begin at the intersection of the mine road and the newly constructed 4th East Portal Road, travel 0.7 miles on the 4th East Portal road heading northeast. The reference area is on the north side of the road. The reference area is visible from the road and is fenced. The location of this reference area is incorrectly shown on Plate VIII-1; it is actually about 600 yards to the southeast. A recommendation to use a GPS unit to accurately locate all reference areas was made to Mr. Tim Kirschbaum of Consol Energy at the conclusion of the field visit. According to Mr. Brown, the R-MDS reference area was in good condition, although signs of drought were affecting the cactus, which were drying out and had been heavily grazed by rabbits. The amount of coverage was estimated to be approximately 15% (J. Brown, 2003). The predominant plants in this reference area were galletta grass, black sage, prickly pear cactus, buckwheat eriogonum, winterfat, broom snakeweed and shadscale. There was one large greasewood, which apparently served as habitat for the rabbits. Cryptogams were observed throughout the site. A hooked barrel cactus was observed, which may be a Federally listed Sclerocactus spp. but which was not positively identified. A return visit to the reference areas is recommended during bloom of the cactus (April – June) for positive identification. Bloom will probably come early this year due to the warm weather.

To arrive at the Greasewood Meadow (R-GM) reference area: begin at the northwest corner of the R-MDS and walk down the mesa to the west about 300 feet. Once at the R-GM, the coal pile near the main office can be seen. The first fenced area (~50' x 50') is a sample site. Continue to a larger fenced area a little further southwest. The condition of this reference area was also good. The predominant plant species were greasewood, rabbitbrush, sand dropseed, broom snakeweed, salt grass, and dried-up halogeton. A gully is forming in the western portion of the reference area. Erosion in the gully is about five inches deep as determined by the shrubs that had basal stems emanating from stalks that were five inches above ground level. An unknown forb was noted all over the site. The plant leaves were very small and had a prostrate habit; the plant could be Tansy - a mustard. Large anthills were observed in this reference area. The ants apparently enjoyed feeding on this "mustard," as it was conspicuously absent from around their mounds.

To arrive at the Riparian Meadow: walk directly westward from the R-GM over a mancos shale hill and then northeast and upward to the riparian meadow. This meadow is visible from the paved main road leading to the mine office. The lush meadow is fed by a spring that lies outside the enclosure. Fencing around the Riparian Meadow reference area (R-RM) could use some repair. The meadow is dominated by Baltic rush, spikerush, and alkalie muhley. Intermediate wheatgrass and milkweed were also noted. The condition of this meadow was in "high good" condition.

After concluding the reference area tour, we went on to the 4th East Portal to discuss the problem of coal fines accumulating outside the disturbed area boundary. Mr. Tim Kirschbaum was investigating an incidental boundary change to include the affected area between the fence and the county road. The Division representatives stressed that a change in the disturbed area boundary would not be effective in itself (because the coal fines are being spread very far from the area to be included in the incidental boundary change) and the application should be accompanied by some changes to operations plan. Possible changes in operation that we discussed included constructing a silo, constructing a 30' wall, lowering the height of the pile (currently at 40'), applying tackifier to the pile. Whatever is proposed must keep the fines from rising into the wind. (Mr Kirschbaum mentioned a very strong wind had come through and pushed over two power poles in the previous week.) The site is very wind prone.

We also observed the condition of the “undisturbed” area within the fenced disturbed area boundary. The area south of the drainage and east of the drainage has been affected again by heavy truck traffic. The vehicles were necessary for installation of the power poles (and for repair of the power poles during the wind storm last week). The area has been severely compacted and has the characteristics of an access road. In a field report dated October 3, 2002 for a field visit on September 26, 2002, Ms. Burton concluded that:

Activity in the undisturbed area should be limited to that which is absolutely necessary. The undisturbed area that has been compacted by vehicle traffic should be mulched with hay or straw and ripped to encourage the infiltration of water and discourage wind erosion. The undisturbed area should be seeded in July with the mix described in Chapter VIII.C.3.

Topsoil berms should be signed to indicate they are topsoil.

As of this date, we would suggest that all the remaining topsoil from within the disturbed area and the topsoil in the berm adjacent to the coal storage pile should be salvaged and stockpiled in the southeast corner of the site where it is out of harm's way.

RECOMMENDATIONS/CONCLUSIONS:

The Permittee should use a GPS unit to accurately locate all reference areas on Plate VIII-1.

A hooked barrel cactus was observed at the R-MDS, which may be a Federally listed Sclerocactus spp. but which was not positively identified. A return visit to the reference areas is recommended during bloom of the cactus (April – June) for positive identification. Bloom may not develop due to drought conditions or come early this year due to the warm weather.

TECHNICAL FIELD VISIT

Fencing around the Riparian Meadow reference area (R-RM) could use some repair.

As of this date, we would suggest that all the remaining topsoil from within the disturbed area and the topsoil in the berm adjacent to the coal storage pile should be salvaged and stockpiled in the southeast corner of the site where it is out of harm's way.

The undisturbed area along the county road that has been compacted by vacuuming of coal fines (January 9, 2003; see Emery Deep Mine, January 8, 2003, Complete Oversight Inspection) should be mulched with hay or straw and raked manually to encourage the infiltration of water and discourage wind erosion. Raking to break the compaction should be done now. Seeding should wait until July when the undisturbed area on the east side within the fence is to be seeded.

cc: All attendees
Price Field Office
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