




COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY COAL PROGRAM INSPECTION REPORT



PERMIT INFORMATION

Permit Number: C-1981-017 Mine Name: Coal Basin Mines Operator: Mid-Continent Resources Operator Address:	County: Pitkin Operation Type: Underground Permit Status: Revoked Ownership: Federal
	Operator Representative Present: None
Operator Representative Signature: (Field Issuance Only) 	

INSPECTION INFORMATION

Inspection Start Date: July 23, 2013 Inspection Start Time: 09:00 Inspection End Date: July 23, 2013 Inspection End Time: 16:00	Inspection Type: Coal Complete Inspection Inspection Reason: Normal I&E Program Weather: Clear	
Joint Inspection Agency: None	Joint Inspection Contacts:	
Post Inspection Agency: None	Post Inspection Contacts:	
Inspector(s): Brock F. Bowles	Inspector's Signature: 	Signature Date: November 18, 2013

Inspection Topic Summary

NOTE: Y=Inspected N=Not Inspected R=Comments Noted V=Violation Issued NA=Not Applicable

N - Air Resource Protection	R - Roads
N - Availability of Records	R - Reclamation Success
N - Backfill & Grading	N - Revegetation
N - Excess Spoil and Dev. Waste	N - Subsidence
N - Explosives	N - Slides and Other Damage
N - Fish & Wildlife	N - Support Facilities On-site
R - Hydrologic Balance	N - Signs and Markers
N - Gen. Compliance With Mine Plan	N - Support Facilities Not On-site
N - Other	N - Special Categories Of Mining
N - Processing Waste	N - Topsoil

COMMENTS

This was an inspection of the Coal Basin Mine conducted by Steve Renner and Brock Bowles of the Colorado Division of Reclamation, Mining and Safety . The mining permit was revoked and the reclamation bond was forfeited by the Colorado Mined Land Reclamation Board in 1993. The reclamation was initiated by the Division in 1994 and completed in 2001.

The purpose of this inspection was to initiate the termination of jurisdiction process. In attendance for the inspection were: Christine Belka (OSM), Ben Carlsen (USFS) and Justin Anderson (USFS). Mark Lacy (USFS) and Mike Mecheau (Crystal Valley Environmental Protection Association) were also invited but did not attend.

The weather conditions were sunny and warm with some isolated showers. The basin had recieved rain the previous week. The amount of rain is unknown but there were several sediment deposits 6-12 inches thick on County Road 307 before the mine entrance. The source of the sediment and the sediment fans were not within the Coal Basin permit area.

Steve Renner started the inspection by giving a short presentation of the mining history, the completed reclamation and current condition of the mine site. After the presentation, Steve led a small walking tour. The areas visited were the Dutch Creek Flume area, the twin bore tunnels/lamphouse area (private property), Roads B and C and the Sutey Pile. The U.S. Forest Service (USFS) explained their current reclamation projects at the minesite including the alluvial fan on Road B, the application of bio-char and the reclamation study plots on the Sutey Pile. Mines 3 and 5 were inaccessible during the inspection due to hazardous conditions. The participants in the inspection declined to inspect Mines 1, 2 and 4.

HYDROLOGIC BALANCE - Rule 4.05, Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures

Number of Partial Inspection this Fiscal Year: 0

Number of Complete Inspections this Fiscal Year: 2

4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:

The area where the old Dutch Creek Flume once stood was inspected. The area is now vegetated with trees, shrubs, forbs and grasses. The ground surface had small depressions created by a backhoe (pocking) to limit overland water flow, to capture seeds and promote seed germination.

Steve Renner explained the concept behind the design of the Dutch Creek channel. Dutch Creek is prone to frequent flash flooding containing large amounts of sediment, rocks and trees. The channel was built to be an active, migrating channel, mimicking the natural stream tendencies and is expected to migrate over time. The channel bottom consisted of large rocks/boulders and fallen trees (photo 1).

ROADS – Rule 4.03, Construction 4.03.1(3)/4.03.2(3), Drainage 4.03.1(4)/4.03.2(4), Surfacing and Maintenance 4.03.1(5) and (6)/4.03.2(5) and (6), Reclamation 4.03.1(7)/4.03.2(7):

The USFS has constructed an alluvial fan in Road B, west of the lamphouse, to mitigate a slide area. A rock lined water channel was constructed with willows stems in the bottom. A several acre fan area west of the channel was constructed to catch excess water and sediment. All areas of the alluvial fan had 3 inches of biochar applied and was then ripped and seeded. Tree seedlings were planted and some large logs were laid across the fan area as energy dissipaters. The entire area was enclosed by an electric fence (photo 2).

The USFS ripped all of Road B and Road D up to the second switch back the previous fall to break up the road surface. Cattle were grazing on Roads B and D. The USFS was installing numerous electric fence plots on Road D to exclude cattle in sensitive areas.

RECLAMATION SUCCESS - Rule 4.15, Rule 3:

The vegetation on the Sutey Pile looked like it was doing well. The main drainage channel on the south side of the pile is deeply incised, the check dams have failed and the erosion matting is no longer effective in most areas. The condition of the channel is the same as it was reported in several previous inspection reports (June 2013, July 2012).

The vegetation looked good on the B and D Roads. Due to the recent ripping of the two roads, it was difficult to assess the overall condition and success of the Division's reclamation work. Road B and the lower section of Road D was not sampled for vegetation success for the purpose of this inspection. The USFS was installing additional electric fences in some grazing sensitive areas on Road D. Cattle were grazing the B and D roads.

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The vegetation looked good on the lower section of Road C. Some of the road cuts consisted of unconsolidated material and there was minimal vegetation establishment.

Vegetation data was collected the day after the inspection (July 24, 2013) to document the current condition of the minesite. The Coal Basin Mine permit has been revoked and there is not a revegetation success standard. The vegetation data is included at the end of this report.

The sampling plan was limited to disturbance areas that were approved under SMCRA, reclaimed by the Division, not on private lands, were not recently re-disturbed by the USFS reclamation efforts, were accessible by hiking and did not pose unnecessary risk to the sampling team. These criteria limited the sampling areas to the eastern side of the Sutey Pile, roads D, E and the lower elevation of roads C and G.

Cover and production data were taken on the Sutey Pile. Random points were generated in ArcMap as starting points for the transects. From these points, a 50 meter transect was laid in the direction to the next random point. Along the transect, 10 cover points were recorded every 5 meters for a total of 100 points per transect. The biomass was clipped in ½ square meter quadrats at 20 and 40 meters along each transect.

Cover data was taken on the roads C, D, E and G. A linear format for transect distribution was used. A 5-meter transect was placed in the middle of the road. At each transect, 10 cover points were recorded at one meter intervals for a total of 50 points. The next transect was placed approximately 250 meters up the road. 4 transects were recorded for each road for a total of 200 cover points per road.

The total vegetation cover for the Sutey Pile was 37.5%. Perennial cool season grasses were the dominant cover species, with sheep fescue and intermediate wheatgrass as the most abundant species. Additional grass cover was provided by western wheatgrass, smooth brome, orchard grass and timothy. Two forb species, cicer milkvetch and dandelion, contributed 2% cover. The average production was 82.87 g/meter or 739 pounds/acre. No noxious weeds were encountered in the sampling transects but plumeless thistle was noted in the area.

The total vegetation cover for the roads was 26.9%. The two perennial forbs, yarrow and cicer milkvetch, contributed 8% cover as did the two cool season perennial grasses, orchard grass and sheep fescue. Two noxious weeds, common mullein and houndstongue, were encountered in the sampling. Together, they contributed 0.75% cover.

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ENFORCEMENT ACTIONS/COMPLIANCE

The permit for this mine has been revoked. No enforcement actions were taken.

PHOTOGRAPHS



Photo 1 – Dutch Creek Reconstructed Channel



Photo 2 – Alluvial Fan in Road B



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