




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



PERMIT INFORMATION

Permit Number: C-1981-014 Mine Name: Southfield Mine Operator: Energy Fuels Coal, Inc. Operator Address: Mr George Patterson P.O. Box 459 Florence, CO 81226	County: Fremont Operation Type: Underground Permit Status: Permanent Cessation Ownership: Private Operator Representative Present: Kent Crofts
Operator Representative Signature: (Field Issuance Only)	

INSPECTION INFORMATION

Inspection Start Date: September 17, 2013 Inspection Start Time: 11:00 Inspection End Date: September 17, 2013 Inspection End Time: 15:30		Inspection Type: Coal Partial 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): Janet H. Binns Robert D. Zuber, P.E.		Inspector's Signature:  Amended 9/26/13 Signature Date:	

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
Y - Backfill & Grading	R - Revegetation
NA - Excess Spoil and Dev. Waste	N - Subsidence
NA - Explosives	R - Slides and Other Damage
Y - Fish & Wildlife	Y - Support Facilities On-site
R - Hydrologic Balance	Y - Signs and Markers
R - Gen. Compliance With Mine Plan	R - Support Facilities Not On-site
NA - Other	NA - Special Categories Of Mining
R - Processing Waste	Y - Topsoil

COMMENTS

This was a partial inspection conducted by Janet Binns and Rob Zuber of DRMS. The weather was clear during the inspection but the region has received numerous days of rain events over the past week. Precipitation amounts recorded on CoCoRaHas website for 9/15 were 0.75 in. at station CO-FM-76, located east of State Highway 67, 1.74 in. was measured at CO-FM-2 in Williamsburg, and 1.30 in. was measured at station CO-FM-67 in Florence. No weather station exists at the Southfield Mine site. The 3 stations listed are the closet weather stations available.

It was apparent on Fremont County Road 92 that considerable rainfall had occurred based upon sediment deposited on the roadway. The road was soft, with muddy spots, but was traversable.

HYDROLOGIC BALANCE - Rule 4.05

Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Surface Water Monitoring 4.05.13;; Impoundments 4.05.6, 4.05.9;

Pond 5 was holding a pool of water, a couple feet below the primary riser pipe. There was no evidence that any discharge had occurred from this pipe. Nor was there any sign based upon the inslopes of the pond that the water elevation had ever reached the discharge level prior to the inspection. The water held in the pond was muddy. Culvert 40 was clear at both the inlet and outlet. Sediment had deposited at the outlet of Culvert 39 and will require clearing. The outlet of the Pond 5 primary spillway also needs to be cleared of material.

Ditches throughout the portal area appeared to be working well, with no observations of ditch breaches or failures. There was evidence of previous flows in the ditches. Rock check dams in Ditch north of the parked grader have been scoured on the downstream side. Rip rap armoring downstream of the check dam is needed protect the eastern downstream bank.

The silt fence on the north side of the truck tunnel continues to stabilize the gully adjacent to the concrete structure. EFCI had previously removed sediment from the north entrance of the truck tunnel. Additional sediment has been deposited on the concrete apron since the storm events. Stabilization of the slope immediately

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north of the concrete apron is needed to prevent the formation of erosional features.

Pond 4 was holding a shallow pool of water approximately 2 1/2 feet below the primary riser discharge point. There was no evidence that the pond had discharged or had been anywhere near to discharging. There are small holes in the westward side of the riser. These look to be the size of bullet holes. Holes that are not part of the pond design need to be plugged.

Ditches at the RDA functioned appropriately with no pooled areas or breaches. The rock dust storage area SAE was not pooling any water and appeared intact.

The vegetation consultant, Kent Crofts, was on the Southfield mine site conducting vegetation sampling. Mr. Crofts had informed the Division, via a telephone conversation on 9/16/2013, that he had observed significant water flow in a drainage, that crosses Fremont County Road No. 15 northeast of the permit area, on 9/14/2013. At the time of the inspection there was insignificant flow at the Thompson driveway culvert. The inspectors walked downstream along the Newlin Creek drainage from the Thompson driveway. There was evidence that Newlin Creek had seen flows but at the time of the inspection the drainageway had a trickle of water and the banks were wet, with occasional puddles in low spots. Just upstream of a fence-line across the creek was a rock dam. This structure appeared to have been constructed by hand. There was water pooled upstream of the dam. There was also considerable deposition of organic material, pine needles, leaf mould, branches and twigs, at this location. There was also evidence in the channel that a reduced flow had continued past this location. The inspection continued past the fence-line across Newlin Creek. We walked along the drainage until we located the pink flagging tape and wooden stake previously placed by the landowner or his representative, to mark where they had observed flow to seep into the bottom of the channel. The Newlin Creek channel was damp downstream of this point, although it did not appear that a large volume of water had continued to flow. There were no surficial cracks or holes visible in this area.

At the loadout Pond L1 was observed. The area was damp and the pond was damp but there was no standing pool of water in the pond.

GENERAL MINE PLAN COMPLIANCE:

NOV-2013-002: Request for a formal hearing has been extended until the October 16, 2013 board hearing.

PROCESSING WASTE/COAL MINE WASTE PILES – Rule 4.10 and 4.11 □ Drainage Control; Surface Stabilization;

The North, South and West Refuse collection ditches all held up well to the runoff flows. A limited amount of sediment transport to the South Refuse ditch was noted at the southeast area of the RDA. Rilling was not apparent. The RDA looked to be quite stable.

ROADS – Rule 4.03 □ 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 portal area and RDA access roads within the Southfield permit area had held up well. The grader

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water-bars were effective in directing flow to the ditches or off the roadway. The road continues to be drivable.

The Northernmost culvert, C1, on the Monarch fan road was checked. The “sock” is holding well. Runoff from the road appears to be appropriately directed into the west side of the road and the inlet of Culvert C1. No additional runoff was short circuiting across the road into the rip-rapped gully. No additional bank sloughage was noted. The inspection did not access the Monarch fan.

RECLAMATION SUCCESS - Rule 4.15, Rule 3:

The vegetation throughout the reclaimed mine and loadout looked very healthy. Numerous warm season grasses; Blue grama, Side-oats grama, and Little bluestem were readily observed on the reclaimed areas.

Kent Crofts, I.M.E. consultant for Energy Fuels, has been on the mine site and load out conducting vegetation sampling. Daryl Mergen has also been collecting vegetation data. The last transplanting of shrubs occurred in 2004. 2013 represents the 9th growing season since the last seeding or planting was conducted on the site. Reclaimed areas and reference areas are planned to be sampled. Reference areas sampled include the Grassland reference, Plot B and the proposed PJ reference area. The consultant also needed to conduct a woody stem inventory on the shrub plots, in addition to vegetative cover, herbaceous productivity and woody stem density throughout the reclamation. Pin flags and flagging tape were observed on shrubs and tree seedlings in the shrub plot areas. The portal area has a healthy population of Four-wing saltbush, as well as transplanted and volunteer Junipers. Healthy, though small, pine trees are surviving throughout the Vento property at the portal area. Rabbitbrush is present but many of the Rabbitbrush plants are decadent, with little new growth, and act as nurse cover for other species.

Mr. Crofts and a helper were encountered north of the RDA sampling a shrub plot in the reclaimed Pond 3 area. Discourse with Mr. Crofts found that that he was collecting data in accordance with the permit requirements, the Division’s guidelines, the Regulations, and previous discussions we had prior to his 2013 sampling efforts. Mr. Crofts questioned how the Division determines if graminoid species are warm season or cool season. The Division refers to the USDA Plants database. If Plants.gov does not state the seasonality, other industry accepted literature may be referenced.

Other than having adverse weather, and some equipment concerns, Mr. Crofts sampling was close to being completed for 2013.

REVEGETATION – Rule 4.15 □ Vegetative Cover; Timing:

A discussion of revegetation is included in the Reclamation success section.

SLIDES and DAMAGE - Rule 4.12:

The wattled slope north of the permanent gravel parking area experienced considerable rilling under the wattles with the recent storms. In accordance with rill and gully repair rule, this slope needs to be reworked and the wattles trenched and re-anchored to the slope.

OFFSITE SUPPORT FACILITIES - Rule 4.04, 4.28:

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The east side of the load out was observed. It did not appear that additional trespass or unapproved dumping had occurred. The tires near Pond L1 appear to have been removed. The broken concrete and bricks remain. The gates were not closed on either the east or west sides. Rail cars were being stored on both sides of the county road.

DOCUMENTS RECEIVED None

OTHER (SPECIFY)

ENFORCEMENT ACTIONS/COMPLIANCE

Infraction Number: CV2013002

Inspection Date: January 23, 2013

Date Issued: January 28, 2013

Primary Topic: Hydrologic Balance

Secondary Topic:

Tertiary Topic:

Description: Failure to ensure that water monitoring well MW-NW continues to function as designed.

Abatement #: 1

Abatement Due Date: 4/1/2013

Abatement Due Extended Date: 6/20/2013

Abatement Description: Remove the obstruction from MW-NW or establish a replacement water monitoring well that intercepts the Southfield Mine workings in the Red Arrow or Jack O' Lantern Coal seam.

Abatement #: 2

Abatement Due Date: 4/1/2013

Abatement Due Extended Date: 6/20/2013

Abatement Description: Provide evidence to the Division that Energy Fuels Coal Inc. has applied for a monitoring well permit with CDWR in accordance with Rule 2.03.10.

NOV-2013-002 has not been abated pending a formal hearing with the Mined Land Reclamation Board scheduled for October 16 or 17, 2013.

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PHOTOGRAPHS



Photo 1: Rock dam in Newlin Creek



Photo 2: downstream of rock dam in Newlin Creek



Photo 3: Landowner's stake marking point Newlin Creek flow previously infiltrated into channel



Photo 4: Flow in Newlin Creek had continued downstream of stake.

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Photo 5: Outlet of Culvert 39 into Pond 5.



Photo 6: slope on northwest corner of truck tunnel requires stabilization.



Photo 7: recent sediment deposition from slope shown in Photo 5.



Photo 8: Vegetation on reclaimed portal area



Photo 9: looking southwest across reclaimed portal area



Photo 10: slope north of parking are. Slope and wattles need repair.

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