




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



## PERMIT INFORMATION

<b>Permit Number:</b> C-1981-014 <b>Mine Name:</b> Southfield Mine <b>Operator:</b> Energy Fuels Coal, Inc. <b>Operator Address:</b> Mr George Patterson P.O. Box 459 Florence, CO 81226	<b>County:</b> Fremont <b>Operation Type:</b> Underground <b>Permit Status:</b> Permanent Cessation <b>Ownership:</b> Private
<b>Operator Representative Present:</b>  None	
<b>Operator Representative Signature: (Field Issuance Only)</b>  	

## INSPECTION INFORMATION

<b>Inspection Start Date:</b> April 15, 2013 <b>Inspection Start Time:</b> 11:30 <b>Inspection End Date:</b> April 15, 2013 <b>Inspection End Time:</b> 17:00	<b>Inspection Type:</b> Coal Partial Inspection <b>Inspection Reason:</b> Normal I&E Program <b>Weather:</b> Clear
<b>Joint Inspection Agency:</b>  None	<b>Joint Inspection Contacts:</b>  
<b>Post Inspection Agency:</b>  None	<b>Post Inspection Contacts:</b>  
<b>Inspector(s):</b>  Janet H. Binns	<b>Inspector's Signature:</b>  <b>Signature Date:</b>  4/19/2013



**Inspection Topic Summary**NOTE: **Y**=Inspected **N**=Not Inspected **R**=Comments Noted **V**=Violation Issued **NA**=Not Applicable

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

**COMMENTS**

This was a partial inspection conducted by Janet Binns of CDRMS. A landowner, Dr. W. D. Corley met the inspector on the mine site. The landowner had previously sent several e-mails to the Division regarding maintenance concerns on the mine site. This inspection serves to document the location and condition of these items of concern identified by the landowner.

The weather was warm, very dry, and calm during the inspection.

**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; 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 landowner had concerns about the sealing and reclamation of the waterline from the Corley Mine Well in T20S R70W Section 23 to near the junction of the North well dewatering line and the “Corley Line”. (Shown on Map 12).

The path of the former waterline was walked starting just south of the Corley Ranch house. The waterline path is still fairly visible due to a change in the vegetation pattern, openings among the trees and shrubs, and a visible pathway. A Yuma tablet with GPS capabilities was used to collect GPS coordinates of the reclaimed waterline path. Photos were collected using the tablet as well.

The “Corley Line” was a 4” PVC buried line that directed water pumped from the Corley Mine well to the Mine facilities area. Dr. Corley believed that the water was leased to EFCI’s predecessor, Dorchester, in 1979 and the water line installed at that time. Map 12 shows the line ending at the reclaimed Pond 3 location. Just south of the Corley Ranch house there is a 4” PVC pipe protruding from the ground along the waterline path. (Photo5) The Waterline path drops into a drainage, Second Alkali Creek. A portion of 4” PVC is visible partially exposed in the

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drainage. Continuing eastward along the waterline path, there are some stretches of the line that have poor vegetation re-establishment. It is unclear if animals are using this as a travel path, but little vegetation has established over the old line (Photos 6 & 7). Along portions of the waterline path there are remnants of broken PVC. These broken pieces are weathered and have sharp exposed edges. The landowner uses some of his property for livestock. Other portions of 4" PVC are still present protruding from the ground (Photo 8). A portion of 4" PVC is becoming exposed at the head of a gully located west of Well 119459. The 2" PVC also noted at this location was a waterline utilized by the landowner. (Photo 9) Three portions of 4" PVC protrude from the ground west of well 119459. (Photo 10)

The landowner has installed a weir on Newlin Creek to allow him to measure the flow in Newlin Creek when it flows. The Division collected GPS coordinates at the location of the landowner's weir. (Photos 12 & 13)

The landowner expressed concern that EFCI is not measuring all the upstream flow in Newlin Creek. Newlin Creek is an ephemeral stream. Most of the flow is collected upstream of the mine and routed via a waterline to the City of Florence. Flow in Newlin Creek is the result of precipitation events and overflow not utilized by the City of Florence. Newlin Creek was dry at the time of the inspection.

The landowner's weir location is SW of the subsidence repair holes conducted by EFCI in 2012.

Well 119459 was located. This well is observed on the surface with a 4 foot diameter concrete vault. The landowner stated that it stopped production in the 1990's. This well had previously been used at the Corley Mountain Ranch house for domestic purposes and livestock watering. The landowner used 2" PVC for routing the water from this well.

There is a spring on the west side of the Magpie permanent diversion. MC-2. This spring is accessed by a steel culvert. The bottom of the steel casing is silted in. It is unclear what the condition of this spring is. It was currently dry. There is a steel pipe in the bottom of the Magpie diversion that ends at the culvert under the road. There was no flow at this pipe at the time of the inspection.

MW-16 is one of EFCI's subsurface water monitoring wells. This well is incorrectly located on Map 16. The actual location is just north of the Vento Mine building.

#### GENERAL MINE PLAN COMPLANCE:

NOV CV-2013-002 abatement date has been extended until May 2, 2013. An assessment conference was held on April 11, 2013. This NOV is still active. EFCI has not provided documentation that MW-NW has been repaired.

#### 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 landowner, Dr. Corley, also expressed concern regarding the ranch road west of the Monarch fan access road.

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This road existed prior to EFCI association with the Southfield permit, and is shown an aerial photo taken September 5, 1978. EFCI was approved as the permittee in 1985. This road has been used previously for access to properties to the southwest. The landowner noted that mining operations utilized a portion of this road to access the powerline to the Monarch fan. The powerline has since been removed, however, one power pole remains on site with decrepit electrical boxes and switches still attached to the pole. (Photo 14 & 15) The landowner believes the pole and associated electrical equipment needs to be removed and hauled away. The landowner also considers that EFCI is responsible for the maintenance of this road up to the power pole location.

#### RECLAMATION SUCCESS - Rule 4.15, Rule 3:

The Ponderosa/Pinyon/Juniper reference area has been the subject of TR39, currently being evaluated by the Division. The Division has observed that the condition of the currently approved Plot B (PPJ) reference area had experienced considerable vegetation die-off over the past year. The Florence/Canyon City area has experienced a drought over the past year and tree die-off has been observed throughout the region.

The approved PPJ reference area is inadequately marked to determine the extent of the area.

Photos 20-22 show shrub survival on the southern extent of the reclaimed portal facilities area. The grass is still low, so the healthy tree and shrub individual show up well in the photos.

The inspector tried to walk the perimeter of the currently approved PPJ reference area and record the condition of the reference area. Efforts to enter a base map, Map16, into the GPS prior to the inspection was unsuccessful due to program errors. So the Division used a paper copy of Map 16 along with the GPS. The current Plot B (PPJ reference area) is nestled between previously disturbed areas, the reclaimed explosives storage area on the south and the historic Peacock mine on the north. Plot B is very steep, has a natural drainage bisecting it, and is on a steep rocky northwest facing slope. The inspector began plotting this area at the identification sign stating "Plot B". This sign is on the west side of the plot. The inspector continued approximately 60 feet to the north east before turning east and scaling the hill. The vegetation consists of tangled oak brush, with juniper and pinyon pine interspersed with scattered grasses in the understory. Due to the dense oakbrush and steep slope, the inspector was unable to match the perimeter boundary of the mapped reference area (Map 16). Photos taken within the PPJ reference area show numerous standing dead pine and juniper trees. Oak brush had not yet leafed out at the time of the inspection. (Photos 16-19)

There are a few standing dead trees in the proposed Pinyon Juniper reference area, but the much larger area of the proposed reference allows for additional sampling area.

#### SUBSIDENCE – Rule 4.20:

The landowner has previously expressed concern regarding possible impacts due to subsidence on several structures. The structures include a cinderblock storage building, and three fence corners.

The cinderblock storage building is located along the Corley Mountain Ranch road in T20S, R70W Section 24. The landowner estimated that this structure was constructed in the 1930's. There are cracks in the masonry on the south and west sides of the building. Repairs have been implemented on the cracks previously. (Photos 2-4)

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The landowner has identified 3 fence corner posts that have pulled out of the ground. He believes these may be a result of subsidence impacts. We visited two of the affected fence corners during the inspection. The first location is north of the Corley Mountain Ranch road in T20S, R70W Section 24. (Photo 1)

The second affected fence corner is at the NW corner of Dr. Corley's property and The Vento Group's property, between R70W T20S Sec 24 and R69W, T20S Sec 19 (Photo 11). The landowner reported that the third affected fence corner is in Section 31, and not easily accessible. Dr. Corley sent the coordinates of the 3rd fence corner to the Division.

**SLIDES and DAMAGE - Rule 4.12:**

EFCI has installed and anchored coir wattles along the slope north of the facilities area permanent parking area. (Photo 22-24). Wattles have been anchored towards the lower portion of the slope. This slope had been receiving run on from the road ditch above. Maintenance of the ditch and wattle placement should assist in reducing the flow down this slope.

Silt fence and repairs to the NW corner of the truck tunnel slope appear to be holding up. The area has received little moisture this spring.

**DOCUMENTS RECEIVED None**

**OTHER (SPECIFY)**

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### **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 date extension: 5/2/2013

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 date extension: 5/2/2013

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-CV-2013-002 has not yet been terminated. An assessment conference was held at the Division offices in Denver, Co on April 11, 2013.

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## PHOTOGRAPHS



Photo 1: fence corner in Section 24



Photo 2: Concrete block structure Section 24 south face



Photo 3: West side concrete storage building



Photo 4: North side concrete storage building



Photo 5: 4" PVC south of Corley Ranch house



Photo 6: bare path along waterline route

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Photo 7: broken PVC pieces along waterline route



Photo 8: protruding PVC pipe



Photo 9: Exposed PVC pipe in gully



Photo 10: Protruding PVC near well 119459



Photo 11: Fence corner at Dr. Corley & Vento Group corner



Photo 12: Landowner's Newlin Creek Weir

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Photo 13: Landowner's Newlin Creek Weir



Photo 14: Powerpole & electrical boxes  
West of Monarch Fan road



Photo 15: Powerpole & electrical boxes



Photo 16: PPJ reference area

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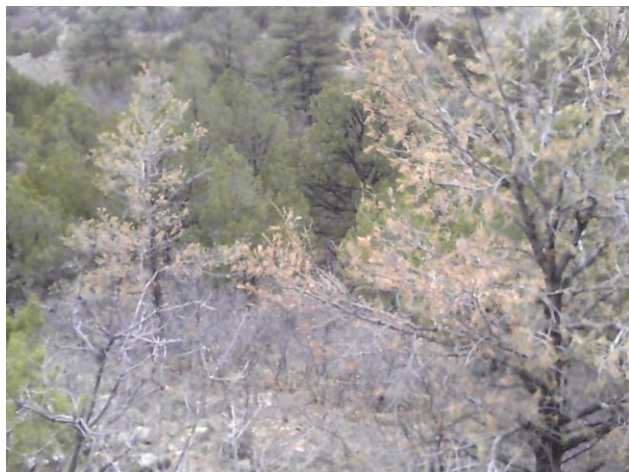


Photo 17: PPJ reference area



Photo 18: PPJ reference area



Photo 19: PPJ reference area



Photo 20: shrubs visible in Portal area reclamation



Photo 21: shrubs visible in Portal area reclamation



Photo 22: wattles placed on slope

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Photo 23: wattles placed on slope



Photo 24: wattles placed on slope

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