



**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: George Patterson
Operator Representative Signature: (Field Issuance Only) 	

INSPECTION INFORMATION

Inspection Start Date: June 24, 2013 Inspection Start Time: 12:15 Inspection End Date: June 24, 2013 Inspection End Time: 15:00	Inspection Type: Coal Partial Inspection Inspection Reason: Normal I&E Program Weather: Cloudy
Joint Inspection Agency: None	Joint Inspection Contacts:
Post Inspection Agency: None	Post Inspection Contacts:
Inspector(s): Janet H. Binns	Inspector's Signature:  Signature Date: June 26, 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 | N - Reclamation Success |
| N - Backfill & Grading | R - Revegetation |
| N - Excess Spoil and Dev. Waste | N - Subsidence |
| NA - Explosives | N - Slides and Other Damage |
| N - Fish & Wildlife | N - Support Facilities On-site |
| R - Hydrologic Balance | Y - Signs and Markers |
| R - 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 a partial inspectin conducted by Janet Binns of CDRMS. The mine site is extremely dry. the entrance gate has been damaged. The combination lock has been removed. The red keyed master Lock is EFCI's. The Division still retains a key fro this lock. The inspector met George Patterson on the site at 12:30 pm at water monitoring well MW-16. Mr. Patterson had a helper, Joe, to assist with water monitoring. The weather was hot and dry, and partly cloudy.

HYDROLOGIC BALANCE - Rule 4.05

Drainage Control 4.05.1, 4.05.2, 4.05.3; 4.05.6; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Impoundments 4.05.6, 4.05.9

The inspection began with observation of Newlin Creek. Newlin Creek was dry at surface water sampling point NC-2. There was no flow in Newlin Creek at the Florence Mountain Park.

The focus of this inspection was to observe EFCI conducting semi-annual water monitoring of the underground monitoring wells. All four monitoring wells had intact caps covering the wells. None of the caps were locked. EFCI does not check for gases prior to sampling the wells. EFCI had sample bottles supplied by ACZ laboratory, with specified preservative.

The inspection began at MW16. EFCI lowered a battery operated water probe into the well. Previous measurements for the depth of MW-16 was approximately 110 ft. below the casing. Once the probe cable was unwound to approximately 120 feet, EFCI raised and lowered the probe to check for a tone that would indicate water in the well. No tone was triggered in the well, indicating that MW-16 was dry at 110 ft.

The access to and surface vegetation around MW 23 was very, dry. EFCI rinsed the sample probe with de-ionized (DI) water prior to lowering the probe into MW-23. The tone sounded at 141.9 feet below the top of the casing indicating the water level.

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EFCI uses a tripod for lowering down a bailer for collecting water quality samples. EFCI uses stainless steel bailer for the 4" diameter wells. EFCI rinsed the bailer with DI water prior to lowering it into the well. EFCI does not purge the water from the well prior to collecting water quality samples. EFCI lowered the bailer to below the water level, allowed the bailer to fill, then raised the bailer to the surface. This first bailer of water would represent the top of the water table in the well. George Patterson confirmed that this sampling method is consistent with the way EFCI has collected ground water samples throughout the life of the Southfield mine permit. The first bailer full of water was transferred to a clean plastic jug. EFCI collected temperature: 15.9 C. EFCI does not collect field EC or pH. EFCI collected two bailers full and mixed both bails of sample water in the jug before filling the sample bottles from the jug. Sample bottles are filled to "shoulder" of bottle, capped tightly then stored in a cooler with ice. The sampling tripod was dismantled and we drove to monitoring well MW-NW.

MW-NW. A fence post has been placed in the middle of the access road to the monitoring well. EFCI checked for black widow spiders under the cap of the well. The Division has previously identified a blockage in MW-NW at 354 feet below the top of the casing. EFCI lowered the probe to 360' feet of cable. Then raised and lowered the line attempting to establish if there was water in the well. There was no water identified by the probe (no tone sounded). MW-NW was dry at 354 feet below the top of the casing.

The inspection proceeded to MW-65. MW-65 is constructed of a 1.5 inch diameter casing. The stainless steel bailer is too large for sampling MW-65, so EFCI uses a flexible tubing bailer with stainless steel ends. EFCI rinsed the 1.5 inch diameter bailer with DI water. EFCI rinsed the water level probe prior to lowering it into the well. Water was recorded at 284.3 feet from top of the casing. The casing is 17 inches from ground to top of casing. The first bail of water was collected and transferred to the rinsed sampling container. Water temperature measured 18.2 C. EFCI collected 3 bails of water. There was a slight sulfide smell to the water sample and the sample was slightly cloudy. EFCI filled sample bottles, minimizing air bubble at the top of the bottle and put samples in cooler on ice as soon as collected. EFCI will send cooler overnight to ACZ laboratory Steamboat this afternoon.

Neither well that registered water in the well was purged prior to EFCI collecting a water quality sample.

The operator conducted the groundwater monitoring plan in accordance with the approved plan in the Southfield permit; Exhibit 25.

GENERAL MINE PLAN COMPLIANCE:

EFCI was collecting groundwater samples in accordance with Ground water monitoring plan as approved in the Southfield permit.

NOV-CV-2013-002 has not yet been terminated. EFCI has requested a formal hearing at the MLRD board meeting.

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

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(6) Reclamation 4.03.1(7)/4.03.2(7):

The access road to MW-16 was maintained and not eroding. The mine site was very dry. The access road to MW-NW has been blocked with a fence post in the middle of the access road and a “no trespassing” sign at the base of the post. As per Rule 5.02.3(2) the Division proceeded to MW-NW in order to observe EFCI’s sampling procedure.

Access to ME-65 is through The Corley Mountain Ranch gates. EFCI provided access through the locked gate. All gates were closed behind the inspection party and locked if appropriate.

REVEGETATION – Rule 4.15 Vegetative Cover; Timing:

The mine site was extremely dry. The mine area has seen little precipitation so far this year. In spite of the dry conditions, the vegetation on the reclaimed areas appears stable.

DOCUMENTS RECEIVED

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

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

Abatement #: 1

Abatement Due Date: 4/1/2013

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 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.

EFCI has requested a formal hearing with the MLRB. EFCI paid the Fixed Penalty on June 5, 2013.

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PHOTOGRAPHS



Photo 1: collecting water sample at MW-23



Photo 2: measuring depth to water in MW-NW (well was dry)



Photo 3: Rinsing sampling equipment at MW-65



Photo 4: measuring water level at MW-65

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Photo 5: Sampling equipment and flexible bailer



Photo 6: Collection water quality sample @ MW-65

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