



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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December 13, 2000

Rick Olsen, General Manager
Canyon Fuel Company, LLC
P.O. Box 1029
Wellington, Utah 84542

Re: Midterm Review, Canyon Fuel Company, LLC, Dugout Canyon Mine, ACT/ [REDACTED]
MT00, O [REDACTED]

Dear Mr. Olsen:

The Division has completed the Midterm Review of the Dugout Canyon Mine as indicated in our October 11, 2000 letter to you. We have enclosed a short Technical Analysis (TA) and a Field Visit Report which discuss the results of our review. Please review them carefully to make sure you understand the requirements.

There are a few items that require "on-the-ground" action. These items are as follows:

1. The temporary fuel storage tank is bermed, but there appears to have been some diesel spilled into the bermed area. This should be cleaned up since it could seep into the ground and contaminate some of the fill material.
2. The ditch near the fuel storage area was beginning to fill with sediment and requires cleaning.
3. The mine should capture a sample of the bubbles coming up in the sedimentation pond and have them analyzed in order to better understand this phenomenon

A few other issues were identified which require written follow up to complete. These issues are as follows:

1. Canyon Fuel should provide the detail necessary in a revised reclamation cost estimate to more accurately reflect the cost of reclamation.
2. The cost estimate identified a concrete non-coal waste storage area, but there is none on the maps or on the ground. This discrepancy needs to be resolved.

3. In accordance with **R645-301-731.222**, submit the Snotel data with the 1st Quarter water monitoring data.
4. In accordance with **R645-100-200**, using 'Best Technology Currently Available', commit to install a precipitation gauge on the Mine site to demonstrate when storm events exceed the design parameters.

In order to comply with the requirements of the midterm review, Canyon Fuel Company, LLC, must complete the "on-the-ground" maintenance items as well as submit a complete and accurate application for amending the approved Mining and Reclamation plan which addresses the above issues. The required information must be submitted by no later than January 31, 2001.

Please call if you have any questions.

Sincerely,



Daron R. Haddock
Permit Supervisor

sm
Enclosures:
cc: Price Field Office
O:\007039.DUG\FINAL\RevCdefMT00.wpd

State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Dugout Canyon Mine
Midterm Review
C/007/039-MT00
Technical Analysis
December 7, 2000

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INTRODUCTION

TECHNICAL ANALYSIS**INTRODUCTION**

The following is a required Division Midterm Review of the Dugout Canyon Mine plan. The review is two-fold: 1) Ensure the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes are appropriately incorporated into the plan document; and 2) review applicable portions of the permit to ensure that the plan contains commitments for the application of the best technology currently available (BTCA) to prevent additional contribution of suspended solids to stream flows outside of the permit area. This review emphasizes the hydrology aspects of the Mining and Reclamation Plan (MRP) and includes a review of past monthly inspections, submitted water monitoring data, and correspondence.

SUMMARY OF OUTSTANDING DEFICIENCIES

SUMMARY OF OUTSTANDING DEFICIENCIES

- R645-100-200, using 'Best Technology Currently Available', commit to install a precipitation gauge on the Mine site to demonstrate when storm events exceed the design parameters. 8

- R645-301-731.222 submit the Snotel data with the 1st Quarter water monitoring data. 8

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

As part of the review of the reclamation bond, the Division reviewed the permit and disturbed area boundaries. The Division checked the information in the MRP, the permit (green binder), Nathan Riddles reports and other sources.

The permit boundary for the Dugout Mine is 7,169 acres which includes the following:

- 10 acre BLM right-of-way
- 566 Federal acres
- 920 State acres
- 5,673 fee acres

Findings:

The permittee has adequately addressed the requirements of this section.

OPERATION PLAN

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Source information for this review include the following:

- Chapters 5, 6, and 7 from the Dugout Mine MRP
- 1998 Inspection and Correspondence folders
- 1999 Inspection, Administration, and Correspondence folders
- 2000 Internal, Compliance, Outgoing, and Incoming folders
- Water monitoring data in the DOGM database

The review indicated the requirements of all permit conditions, division orders, notice of violation abatement plans, and permittee initiated plan changes have been incorporated into the Division MRP. The most recent incorporation taking place March 30, 2000 in the aftermath of Significant Revision SR99D-3. As recommended by Daron Haddock (4/11/00 letter), a side-by-side evaluation of the Divisions' and Permittees' MRP would be a prudent exercise at this time.

Ground-water monitoring

Groundwater monitoring consists of three wells (GW-10-2, GW-11-2, and GW-24-1) located generally in the center of the permit area and trending northwest-southeast. All three wells are completed in either the Price River Formation or Castlegate Formation which are both located stratigraphically above the Blackhawk Formation where the mining activity is occurring. Currently, it appears the mining activities are not encountering the anticipated flows from within the Blackhawk Formation. No groundwater monitoring of the underlying strata beneath the coal unit being mined is conducted for the following reasons addressed in the PHC: 1) mining is occurring immediately above the Mancos shale and no regional aquifer exists, 2) Monitoring wells at the neighboring Soldier Canyon Mine have demonstrated limited recharge, 3) the hydrologic gradient is to the north, and the groundwater movement is minimal with no outlet to the surface, and 4) the probability of contributing pollution is minimal. To date, all required groundwater monitoring data has been submitted.

Surface-water monitoring

Surface water monitoring includes DC-1 through DC-5 which evaluate surface-water conditions predominantly around the surface facilities, 10 springs distributed throughout the permit area which evaluate Formations located above the Mine, and MD-1 which is the Mine discharge. Outlined in the MRP is the protocol for collecting water samples at DC-4 and DC-5 and collecting flow data for all the

springs. This is based on wet and/or dry years as defined by the snow-pack measurements as of March 1 for the Price River-San Rafael River Basin Snotel weather sites. To date, all required surface water monitoring data has been submitted. The MRP does not clearly state whether or when the data is submitted. The snow-pack data, as of March 1, should be included in 1st Quarter reports.

Sediment control measures

All three ASCA's were performing within acceptable limits during the on-site inspection.

Sedimentation ponds

Discharge from the sediment pond is covered under UPDES permit UTG040020-002A. Three noncompliant discharges have been documented since the issuance of the permit. The first discharge occurring on July 30, 1999 was attributed to a culvert blockage at DC-3 caused by debris washed into the trash rack during the storm. The blockage resulted in water being diverted over the mine site and into the Sediment pond, subsequently filling the pond to capacity resulting in a discharge. A water quality sample was collected which was analyzed and out of compliance for Total Suspended Solids and Settleable Solids. The Operator contended the occurrence was 'beyond their control' and was not a noncompliance event. Although a sample was collected and a letter written to the Department of Environmental Quality, a 'No Discharge' form was submitted to the Division for the month of July 1999.

The second and third noncompliant discharges occurred October 19 and October 26, 1999 respectively. These discharges were associated with pumping of the pond from the July 30, 1999 event. This pumping was necessary to extract the excess sediment from the pond.

No quantitative data was collected documenting the accumulated precipitation from the July 30, 1999 event. Using the 'Best Technology Currently Available'(BTCA), it is necessary for a rain gauge to be installed at the mine site. A rain gauge would serve as an additional check on the holding capacity of the sediment pond. The permittee has committed to installing a weather station by approximately July 2001.

Findings:

The following pertains to observations found in Surface Monitoring, and the Sediment pond:

R645-301-731.222 submit the Snotel data with the 1st Quarter water monitoring data.

R645-100-200, using 'Best Technology Currently Available', commit to install a precipitation gauge on the Mine site to demonstrate when storm events exceed the design parameters.

RULES INDEX

30 CFR

773.17	7
774.13	7
783	5
783.12	5
784.14	7
784.16	7
784.29	7
817.41	7
817.42	7
817.43	7
817.45	7
817.49	7
817.56	7
817.57	7

R645

-300-140	7
-300-141	7
-300-142	7
-300-143	7
-300-144	7
-300-145	7
-300-146	7
-300-147	7
-300-148	7
-301-512	7
-301-514	7
-301-521	5, 7
-301-531	7
-301-532	7
-301-533	7
-301-536	7
-301-542	7
-301-720	7
-301-731	7
-301-732	7
-301-733	7
-301-742	7
-301-743	7
-301-750	7
-301-761	7
-301-764	7



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December 6, 2000

To: Internal File
From: Daron R. Haddock, Permit Supervisor *DRH*
Re: Technical Field Visit as part of Midterm Review, Canyon Fuel Company, LLC,
Dugout Canyon Mine, C/007/039

Other Attendees: Steve Demczak, Gregg Galecki, (DOGM)
Ken Payne, Chris Hansen, Dave Spillman, (Canyon Fuel)

Date & Time: November 30, 2000 / 10:15 am to 1:00 pm

PURPOSE:

To document the status and effectiveness of operational, reclamation, and contemporaneous reclamation practices undertaken on the disturbed area..

OBSERVATIONS:

The site visit commenced with a short meeting in the mine office. The purpose and scope of the Midterm review was explained and several issues were discussed including the fact that this would be the first midterm review of the Dugout Canyon Mine. A major topic of discussion was the reclamation bond cost estimate. It is felt that the current bond is adequate, however, during the initial permitting of the mine the company opted to post additional bond in lieu of exact detail in the reclamation cost estimate. Now, Canyon Fuel is interested in providing the detail necessary to accurately reflect the cost of reclamation and hopefully reduce their required bond. A copy of a revised draft cost estimate was provided to Steve Demczak who will review it with Wayne Western and further evaluate their bonding situation. One item on the draft cost estimate raised some questions. The cost estimate identified a concrete non-coal waste storage area, but there is none on the maps or on the ground. This discrepancy needs to be resolved.

Water monitoring at the mine was discussed. The mine seems to be making pretty good progress in submitting water monitoring data electronically to the Division's water database. Chris Hansen, who is responsible for the data seems to think the system is improving. There was some concern that they are not monitoring any aquifer immediately below the coal seam they are mining. It was explained that due to the geology of the area, there is no significant water below

in this location and do not contain appreciable water above the Mancos shale which acts as a large aquaclude.

After the office discussion, the review team accompanied by Messrs. Payne, Hansen, and Spillman, walked through the surface facilities at the site, starting at the fan installation and portal area. The mine is currently using a temporary fan, but a new larger fan will soon be installed and used when ventilation needs increase. The group walked to the upper end of the disturbed property and inspected the inlets to the bypass culverts. Both were clear and functioning properly. There will probably be a request in the near future to beef up the inlet to the right fork culvert with gabion baskets.

Some concern was expressed about the temporary fuel storage area which is near the upper end of the disturbed area. The storage tank is bermed, but there appears to have been some diesel spilled into the bermed area. This should be cleaned up since it could seep into the ground and contaminate some of the fill material. This problem should be eliminated as soon as the mine starts to use the newly built fuel storage facilities. Concrete enclosures have been constructed, but have not been used since the fuel tank has not been installed yet. The enclosures appear to work since they are containing water and ice that has accumulated in them from recent storms.

Drainage from most of the disturbed area is routed through concrete lined ditches. Most of these appear to be functioning properly. One ditch near the fuel storage area was beginning to fill with sediment and requires maintenance. At the lower end of the site we looked at an alternate sediment control area which seemed to be fine. We also looked at the sediment pond and the downstream area. There was no evidence of any sediment leaving the site. The sediment pond contains some water but appeared to be far from discharging. Much of the water had an ice covering, but a small portion was free of ice. Looking more closely, it became apparent that there are a few spots where the water was bubbling (see Figure 1 page 4). It was unclear what was causing the bubbling action and none of the mine personnel seemed to know either. Dave Spillman suggested that it might be methane coming up from below the pond. There are no mineable coal seams or old working in this area so that seemed unlikely. The mine was encouraged to capture a sample of the bubbles and have them analyzed in order to better understand this phenomenon.

Between the pond and the office buildings (adjacent to the truck loadout), there is an area where a slope was cut to build some of the pad area. There appears to be a small amount of rilling on this slope(see Figure 2 page 4). The area has been seeded, but since this is new construction, vegetation has not completely stabilized the slope. It is felt that the slope will become stable as the vegetation grows in. The area should be watched during the next growing season to ensure it stabilizes. The substation, powder magazine, and water storage tank areas were also inspected. No concerns were identified.

RECOMMENDATIONS/CONCLUSIONS:

The site is compact and tidy. A couple of issues were identified that require immediate maintenance. 1) The storage tank is bermed, but there appears to have been some diesel spilled into the bermed area. This should be cleaned up since it could seep into the ground and contaminate some of the fill material. 2) The ditch near the fuel storage area was beginning to fill with sediment and requires cleaning.

A few other issues were identified for follow up some of which are plan related and some are issues on the ground. The issues are as follows:

1. Canyon Fuel should provide the detail necessary in a revised reclamation cost estimate to more accurately reflect the cost of reclamation.
2. The cost estimate identified a concrete non-coal waste storage area, but there is none on the maps or on the ground. This discrepancy needs to be resolved
3. The mine is encouraged to capture a sample of the bubbles coming up in the sedimentation pond and have them analyzed in order to better understand this phenomenon
4. There appears to be a small amount of rilling on the cut slope between the sediment pond and the office building (adjacent to the truck loadout). The area should be watched during the next growing season to ensure it stabilizes.

sm
Attachment: (FV_113000A)
cc: Ken Payne, Canyon Fuel Co.
Dave Spillman, Canyon Fuel Co.
Chris Hansen, Canyon Fuel Co.
O:\007039.DUG\Final\FV_113000.wpd

ATTACHMENT(PHOTOGRAPHS)



Figure 1



Figure 2