

Reply to: 2820

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Lowell Braxton
State of Utah Natural Resources **DIVISION OF OIL, GAS & MINING**
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RE: Federal Lease Tract Addition, Beaver Creek Coal Company, Trail Mountain #9 Mine, ACT/015/009, Folder #2, Emery County, Utah

Dear Lowell:

We have reviewed Beaver Creek Coal Company's responses to our initial comments on the Federal tract addition (Forest Service letter to the Division, dated October 5, 1990). The numbers on the comments below correspond with Forest Service comments and Beaver Creek Coal Company's responses.

1. Chapter 3, Operating Plan

The operator states that a more detailed mining plan will be submitted for the PAP once they receive approval of the Resource Recovery and Protection Plan (R2P2) from BLM. Before the Forest Service can effectively cooperate on preparation of the EA/TA and consent to the PAP, the mine plan must be complete and demonstrate that mining will be done in conformance with lease stipulations. In addition, the Forest Service must receive confirmation from the BLM that the R2P2 is in conformance with lease stipulations and is designed to prevent unnecessary impacts to surface resources.

2. Section 3.3.2.2, Protection of Surface Structures and Streams

In response to this item, the operator revised the text to recognize that Forest Development roads and trails, watershed treatments, and stock ponds overly the mine area. A commitment for repair of these structures if they are damaged by mining has been made in the text. The narrative is adequate, however, the structures must be identified on the Land Use Map 4-3 or another map as structures which need to be monitored and repaired if damaged.

The operator revised the text to state that a spring inventory will be done in 1991. However, water rights are not discussed. The operator needs to identify all water rights and water rights claims which lie within and adjacent to the permit area. This information is required and will help in locating springs. Along with the statement that a spring inventory will be completed in 1991, the operator needs to commit to monitoring additional springs identified during the 1991

survey, if required by the surface management agency and the Division. The Forest Service inventory of springs shows that there are additional developed springs in the permit area which need to be surveyed and, if found during the 1991 survey, will need to be monitored.

The operator has committed to determine if the drainages in the permit area are perennial or intermittent. In addition, a commitment was made to protect the drainages if they are determined to be perennial. As discussed in comment No. 1 of this letter, the mine plan must reflect this commitment as required in lease stipulations.

3. Section 4.4.2 Mine Plan Area Land Use

The Manti-La Sal National Forest Land and Resource Management Plan, 1986 has been referenced as required in this comment. The watershed treatments (WPE Management Unit) must, however, be shown on Land Uses Map 4-3.

4. Section 6.5.1 Exploration and Drilling

The correction has been made and this comment has been adequately addressed.

5. Section 6.5.5.1 Reserve Calculations

The operator has stated that the Hiawatha seam isopach map (Figure 6-7) is confidential and is therefore not included in the package. Since the Forest Service does not need this information for evaluation, this comment has been adequately addressed.

6. Section 6.7.2 Local Formations Structure

This comment has been adequately addressed.

7. Chapter 7 Hydrology

This comment has been adequately addressed.

8. Section 7.1.3.1 Regional Groundwater Hydrology

The operator has committed to conduct a spring survey in 1991. However, as discussed in item 2 above, the operator needs to identify water rights and water rights claims and needs to commit to monitoring additional springs identified during the 1991 survey if required. The water rights need to be shown on the spring and surface water maps with a list and discussion in the text.

A spring has been developed by the Sportsman's Lodge as a culinary water source under a Forest Service special-use permit in Joes Valley. This spring lies down-dip of the mine between the tract and the Joes Valley Fault. If the operator does not think that this spring will be affected, a discussion is needed to justify this statement. Even if it is not anticipated that the spring will be affected, it needs to be inventoried, monitored and identified for replacement of water in the event that it is impacted by mining.

9. Section 7.1.6.1 Alternative Water Supply

The reference has been corrected as required. The operator has committed to monitoring and repair of pond 35-1P, if it is damaged. This is acceptable but it must be clear that all such ponds must be repaired if damaged. The commitment for monitoring and repair of ponds is not limited to just this pond.

The commitment for replacing water is generally acceptable, however, the statement on water replacement is not clear. We suggest that the second sentence on page 7-15 be changed to read as follows: "Repair of damaged water sources and structures and the methods for replacement of water will be subject to approval by the surface management agency, the water rights owners and the Division".

10. Section 7.1.5 Effects of Mining on the Groundwater Hydrologic Balance

The operator responded to this comment by adding a reference to Section 6.7.2 which states that there will be increased flow in the mine but there will be no impact to the net flow in Straight Canyon below the reservoir because the mine water will be discharged into Cottonwood Creek. The operator fails to recognize that the interception of ground water and discharge into Cottonwood Creek could potentially decrease flow in Straight Canyon between the reservoir and the confluence with Cottonwood Creek. Estimates of the amount of water which could be encountered and discharged into Cottonwood Creek (increasing flow) and the potential for decreasing flow in Straight Canyon must be addressed.

On page 7-12 it is stated that only two springs [T-10 and T-14] were found within the area of potential subsidence. This statement is not accurate. Map 7-2 shows several additional springs and a pond. This section needs to be revised. In addition, the 1991 spring survey will likely identify several more springs. The Forest Service inventory shows at least two additional developed springs.

Page 7-13 needs to be revised in regard to the reference to the two springs discussed above.

11. Section 7.2 Surface Water Hydrology

The operator has committed to study and protect the drainage which is located on the lease, however, the potential for surface water changes has not been adequately addressed.

The potential impacts to Straight Canyon due to dewatering and the increase in flow to Cottonwood Creek need to be addressed. The amount of potential increase in mine water discharge needs to be assessed so that it can be determined how much additional flow could occur in Cottonwood Creek.

12. Chapter 8 Soil Resources

The Forest Service will provide the operator with a soil map and a narrative describing the soils in the permit area. The soils information should be included into the PAP to complete the inventory of surface resources above the mine area.

13. Chapter 9 Vegetation Resources

In an effort to comply with this comment and the lease stipulations, the operator submitted a range analysis map of the Trail Mountain Cattle and Horse Allotment map obtained from the Forest Service. This map shows only vegetative cover type and a range condition rating. This map does not meet the requirements of the lease stipulations. The cover types need to be converted to plant community types. For example, map type 9 could be converted to a Pinyon/Juiper-Snowberry/Salina wild rye grass community. In addition, there has been aerial photo coverage of this area which can be used.

The operator needs to make a commitment to monitor the vegetative communities to determine if mining and subsidence have caused any changes to the community boundaries at five year intervals and to report this information in the 5-year renewals.

If the operator needs help in delineating the vegetative communities, he should contact Bob Thompson of the Forest Service in Price, Utah.

The Forest Service has determined that there are no listed Threatened, Endangered or Sensitive plant species in the lease area. This needs to be stated in the PAP.

14. Chapter 10 Fish and Wildlife Resources

The operator responded to this comment by adding the Wildlife Use Map (Figure 10-4). The map shows wildlife use areas and raptor nest locations as required. The map provides needed information, however, a narrative discussion is needed to explain the information and discuss the source and when and how this information was compiled. The fishery in Straight Canyon also needs to be discussed.

15. Section 12.4.2 Subsidence Experience Over Coal Mines

This comment as follows has not been adequately addressed:

The Bureau of Land Management (BLM) and Forest Service (FS) used a 22 degree angle-of-draw to evaluate the potential for inducing escarpment failures during preparation of the tract delineation report and environmental analysis. The PAP discusses a 15 degree angle-of-draw. The PAP does not provide adequate information to substantiate that the average angle-of-draw will be 15 degrees.

16. Section 12.4.3 Subsidence Effects and Control

The operator has adequately addressed a portion of the comment. The remaining portion of the original comment which has not been adequately addressed is as follows:

The stability of the canyon slopes below the mine area and the safety of travelers along the highways in Straight and Cottonwood Canyons is of utmost importance considering the vertical nature of the canyon slopes and existing instability. The operator must address the potential for mining/subsidence to induce escarpment failures or dislodge rocks onto the roadways in Straight and Cottonwood Canyon and demonstrate that adequate measures will be taken to prevent mining induced escarpment failures or landslides and provide for public safety.

17. Section 12.4.4 Subsidence Monitoring

The operator has not addressed this comment. It is as follows:

The proposed subsidence monitoring plan is not adequate. Survey monuments must be strategically located and there must be enough data points to measure and determine the angle-of-draw and maximum subsidence. If landslides or escarpment failures occur in Straight and Cottonwood Canyons, there needs to be adequate monitoring information available to determine if they were induced by subsidence. This could be done by installing laser prisms on the canyon rim which could be read from the canyon bottom or other locations not affected from subsidence.

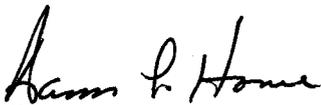
The subsidence plan needs to include survey monuments well beyond the panels in the areas where subsidence will occur to determine the angle-of-draw. The amount, extent and angle-of-draw might be different along the escarpment area due to the lack of buttressing forces.

In addition to measured survey data, an annual reconnaissance of the mined area is necessary to locate, map and describe any observable surface indications of subsidence. This information needs to be included in the annual subsidence report.

The existing MRP is referenced in regard to the subsidence monitoring plan. The MRP discusses the Forest Service/Mine Operator photogrammetric monitoring program which has been discontinued. The MRP/PAP need to describe the current subsidence monitoring program which is being conducted in the existing mine area and the new lease (See comments in the March 6, 1990 letter to the Division from the Forest Service in regard to the 5-year renewal).

Please contact Aaron Howe or Carter Reed at the Forest Supervisor's office in Price, Utah to coordinate the above actions. The soil information discussed in item 12 will be sent directly to the operator for incorporation into the PAP.

Sincerely,



for

GEORGE A. MORRIS
Forest Supervisor

cc:

Richard Holbrook/Floyd McMullen

D-2

C.Reed

Gene Nodine

Dan Guy