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DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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April 2, 2002

TO: Internal File

THRU: Michael J. Suflita, Senior Reclamation Specialist, Hydrologist/Team Lead *MJS.*

FROM: Susan M. White, Senior Reclamation Specialist/Biologist *SMW*

RE: James Canyon Road & Wells, Canyon Fuel Company, LLC, Skyline Mine, C/007/005-AM01K

**SUMMARY:**

Canyon Fuel Company submitted the above referenced amendment on November 15, 2001. The amendment addresses the outstanding issues regarding the drilling, construction and operation of the mine dewatering wells in James Canyon and updates the PHC. The amendment contains deficiencies that are listed below.

**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

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

**HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.12; R645-301-411.

**Analysis:**

Montgomery Archaeological Consultants conducted a cultural resources survey of the dewatering drill holes and access road on August 21, 2001. The report did not state that the

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pipeline route was included in the survey although one aspen art site was documented in this survey adjacent to the pipeline. Chris Hansen, Canyon Fuels, stated on August 24, 2001 that the consultant refers to the pipeline route as the access road.

The James Canyon segment of the county road from Scofield to Fairview was documented as a historic site (42Em2734) along with two aspen art sites (42Em2732 and 42Em2733). The earliest documented date for the James Canyon road was a map dated 1923. The road was decommissioned in 1975 during construction of Electric Lake. The aspen art site adjacent to the road exhibits one carving consisting of "Don Probert 46" and another more recent carving. The three historic sites were recommended as not eligible for the National Register of Historic Places (NRHP) because of lack of artistic elements for the aspen art and lack of retention of structural integrity for the road.

**Findings:**

Information provided in the application meets the minimum Historic and Archeological Resource Information requirements of the regulations.

**VEGETATION RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.19; R645-301-320.

**Analysis:**

The vegetative communities within the U. P. & L. Tract of the permit area are:

- sagebrush/grass
- riparian
- conifer-timber
- aspen.
- Mountain herbland

An unpaved county road through James Canyon was abandoned in 1972. The abandonment consisted of minor regrading, scarification, installing water bars, and seeding. The current road and well were constructed in late summer of 2001 under a coal exploration permit issued by BLM. The vegetation along the road prior to redisturbance consisted of grasses, rabbitbrush, and sagebrush (page 2-63b). The description provided is not adequate to predict the potential for reestablishing vegetation and productivity. The Division's Vegetation Information Guidelines describe when and how to conduct studies of vegetation that will be disturbed. Pre-coal mining disturbance vegetation cover, diversity, and productivity must be provided.

Dwg. No. 2.7.1-1a.dwg, UP&L Tract Vegetation Map delineates the vegetative community for the additional permit area.

**Findings:**

Information provided in the application is not considered adequate to meet the minimum Vegetation Information requirements of the regulations. Prior to approval, the Permittee must provide the following in accordance with:

**R645-301-321.200**, Pre-coal mining disturbance vegetation cover, diversity, and productivity adequate to predict the potential for reestablishing vegetation must be provided.

**FISH AND WILDLIFE RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 784.21; R645-301-322.

**Analysis:**

Dr. Clayton White conducted a goshawk survey of Burnout Canyon and adjacent areas in May 2001. No goshawks were found, although goshawks and red-tail hawks have been observed in the area in past years (Appendix Volume A-2). There are goshawks nesting in adjacent drainages.<sup>1</sup>

The pipeline will be buried upslope from James Creek. The mouth of James Creek is critical to the Yellowstone cutthroat trout spawning. The Permittee has committed to sampling fish and macroinvertebrates in James Creek (page 2-71 and page 2-72). Sampling reportedly began in October 2000. A commitment should be provided to include the results of these studies in the annual report or as an appendix to the MRP. The permit describes the sampling program as follows:

Multi-pass electrofishing to estimate fish populations will be conducted in October for two consecutive years and then every three years thereafter. The fish surveys will be done in the fall. A macroinvertebrate study of James Creeks will be conducted twice a year for two consecutive years and every three years thereafter. The surveys will be done in the spring and fall.

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<sup>1</sup> Phone conversation with Rod Player, Forest Service Biologist, on 1/28/02 with Susan White.

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**Findings:**

Information provided in the application meets the minimum Fish and Wildlife Resource Information requirements of the regulations.

## **OPERATION PLAN**

### **FISH AND WILDLIFE INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

**Analysis:**

#### **Protection and Enhancement Plan**

The recommended seasonal buffer for the goshawk and red-tailed hawk is March 1 to August 15. Assuming operations continue as reported no protection plan will be required in James Canyon further than keeping the road gated and locked (page 2-99(a)) to restrict public access. The Forest Service has stated keeping the gate locked is sufficient to protect raptor nests in near by canyons.

The MRP (page 2-71) commits to conducting macroinvertebrate studies and fish studies in James Creek for 2 years beginning in October 2000 and then every three years thereafter. This should identify any slow degradation of the creek due to sedimentation, should it occur.

#### **Wetlands and Habitats of Unusually High Value for Fish and Wildlife**

The MRP states that low flows in Eccles Creek are often 2 cfs in late summer and fall and high flows seldom exceed 50 cfs (page 2-65). Current discharges are 13 to 20 cfs into Eccles Creek. Eccles Creek is a tributary to Mud Creek and Mud Creek flows directly into Scofield Reservoir. Scofield Reservoir is a culinary water source, one of the top four trout fishing lakes in Utah and has over a one million dollar recreational fishing value<sup>2</sup>. An addendum to the PHC dated November 2001 (author's not provided) states (page PHC A-15) that:

Significant erosion has not been noted in the stream channel. However, if the high discharge volumes continue, erosion of the stream channel will occur at a rate faster than would occur without the mine water discharge. Since the stream channel is well armored and vegetated, increased bank erosion should still occur only at a very slow rate. The Mud Creek

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<sup>2</sup> E-mail from Louis Berg to Susan White dated February 4, 2002.

channel will need to be monitored closely for increased rates of erosion. Mitigation efforts may be required for both streams if significant erosion is observed.

Determining the rate and extent of bank erosion in Eccles and Mud Creek due to the mine water discharge will be difficult. Staff at DWR, have also expressed concern that increase flow will cause further stream bank erosion in Mud Creek. The application must describe, 1. How the Operator will avoid or minimize disturbance and adverse impacts to fish and related environmental values during coal mining in Eccles and Mud Creek. 2. How enhancement and restoration of Eccles and Mud Creek will be achieved. 3. Protective measures to Eccles and Mud Creek during mining.

### **Findings:**

Information provided in the application is not considered adequate to meet the minimum Fish and Wildlife requirements of the regulations. Prior to approval, the Permittee must provide the following in accordance with:

**R645-301-130**, The names of the persons or organizations that collected and analyzed the PHC data must be provided.

**R645-301-333**, The application must describe: 1. How the Operator will avoid or minimize disturbance and adverse impacts to fish and related environmental values during coal mining in Eccles and Mud Creek. 2. How enhancement and restoration of Eccles and Mud Creek will be achieved. 3. Protective measures to Eccles and Mud Creek during mining.

## **RECLAMATION PLAN**

### **PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES**

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

### **Analysis:**

Fish and Wildlife enhancement measures during reclamation for the James Canyon road, pipeline, and well are not addressed. Enhancement measures could include shrub plantings or other methods of enhancement. The State's Lone Peak Nursery custom grows specific species provided sufficient lead time. Information can be obtained from:

[http://www.nr.utah.gov/slf/Forestry%20Fire%20&%20State%20Lands\\_files/lonepeak/Home2.htm](http://www.nr.utah.gov/slf/Forestry%20Fire%20&%20State%20Lands_files/lonepeak/Home2.htm)

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Bitterroot Restoration at: [http://www.revegetation.com/BRIWeb/plant\\_prop.html](http://www.revegetation.com/BRIWeb/plant_prop.html) also contract grows plants.

Because the pipeline burial reclamation was done prior to resolution of the deficiencies, no surface mulch was used. Since James Canyon is critical breeding habitat for the Yellowstone cutthroat this area will need to be observed in the spring and remedial action taken if erosion is noticed. Surface mulch must be used in reclamation of the road and pipeline.

**Findings:**

**R645-301-342.100**, Fish and wildlife enhancement measures used during reclamation must be described.

**REVEGETATION**

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

**Analysis:**

A seed mixture for the James Canyon was developed in coordination with the Forest Service (page 2-63(d)). It is crucial that the Permittee be vigilant with a weed control program. The Weed Web at: <http://extension.usu.edu/coop/ag/crops/weedweb/index.htm> provides current information for weed control programs.

**Timing**

Final seeding of the buried pipeline was completed in November 2001. Seeding of other areas in James Canyon will be done in the fall. The powerline trench was compacted and graded in the fall no seeding was required. The fall is considered the normal time of seeding for this area.

**Mulching and other soil stabilizing practices**

Soil preparation will include surface roughening. Extreme surface roughening should stabilize the soil surface or limit sediment runoff to the bottom of each basin. Because James Canyon is critical habitat for the Yellowstone cutthroat a surface mulch should be used to control any possible sedimentation.

### **Standards for success**

The application provides a reference area for the James Canyon disturbance but fails to make a demonstration that the reference area is equal to or exceeds the vegetation cover, diversity, density and/or productivity of the disturbed area. This site was not previously disturbed by coal mining activities and will not be exempted from productivity, diversity or any other performance standards. The revegetation standard is based on a reference area yet the application states a standard of 58 percent. This should be removed and stated that the cover of the reference area at the time of bond release will be used. The bond releases standard is total cover of the reference area and not just understory cover. Productivity of the area must be stated. An estimate from the National Resource Conservation Service (NRCS) has been accepted in the past for vegetation production estimates.

### **Findings:**

Information provided in the application is not considered adequate to meet the minimum Revegetation requirements of the regulations. Prior to approval, the Permittee must provide the following in accordance with:

**R645-301-355**, The Permittee must commit to using surface mulch during reclamation in James Canyon.

**R645-301-356**, The Permittee must provide productivity information, a range rating for the proposed reference area, and diversity standard. The reference to this site being previously mined must be removed.

## **STABILIZATION OF SURFACE AREAS**

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

### **Analysis:**

Waterbars are not a Best Management Practice in this case for operational activities because they require maintenance and removal when the operation is concluded. The use of waterbars in reclamation is not appropriate. Mine sites in Utah have successfully used an extreme surface roughening technique instead of waterbars. The roughening process can occur during topsoil placement or while incorporating organic materials (i.e. hay). Surface roughening also eliminates trespass off road vehicles. Proper roughening is described in the technique sheets in the Division's reclamation manual, The Practical Guide to Reclamation in Utah, found at: [ftp://dogm.nr.state.ut.us/PUB/MINES/Coal\\_Related/RecMan/Reclamation\\_Manual.PDF](ftp://dogm.nr.state.ut.us/PUB/MINES/Coal_Related/RecMan/Reclamation_Manual.PDF). The

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technique sheets are also useful to give to equipment operators to illustrate the degree of roughness required.

**Findings:**

**R645-301-355**, The Permittee must provide a commitment to remove the waterbars at Phase II bond release or remove the use waterbars at reclamation.

**RECOMMENDATION:**

The amendment should not be approved until the above noted deficiencies are addressed.