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DIVISION OF OIL, GAS AND MINING

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November 2, 1995

TO: Daron Haddock, Permit Supervisor

FROM: Paul Baker, Reclamation Biologist 

RE: Draft Review, Willow Creek Mining and Reclamation Plan Application, Willow Creek Mine, Cyprus Plateau Mining Company, PRO/007/038, Working File, Carbon County, Utah Folder # 2

## SYNOPSIS

Cyprus Plateau Mining Company has submitted an application to mine an area east of the Price River and west of Andalex's Centennial Project permit area. The application needs to clarify pre- and postmining land uses and needs to contain comments from landowners.

Cultural resources information in the non-confidential portion of the application contains enough detail that it would be relatively easy for the public to locate the sites. This information should be considered confidential. The application should only contain general descriptions of the areas.

The proposed disturbed area contains two significant cultural sites. One of these consists of numerous features associated with the old Castle Gate Mines and townsite. Although most of these would be redisturbed, the Division of State History is primarily concerned about an area not proposed for disturbance. The other area contains pictographs. This site would be in the disturbed area, but it does not appear it would be disturbed. The Division should stipulate that it not be disturbed without specific authorization from the Division and State History.

## ANALYSIS

### HISTORIC AND ARCHÆOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.12. UCA R645-301-411.140

#### Analysis:

Section 3.4.3 contains most cultural and historic resource information. The full report by Sagebrush Archaeological Consultants is in Volume 15 and is marked confidential. Map 11 shows facilities area cultural resources and correlates with the abbreviated information in the



text. In Section 3.4.3.4, the application references Map 3-8 for cultural resources information. This appears to be a mistake since Map 8 has biological information and Map 11 has cultural resources information.

The purpose for keeping some cultural resources information confidential is to try to limit vandalism and illegal collecting of artifacts. The application contains information about significant resources the consultant considered significant, and non-confidential portions of the application contain enough detail to locate these sites. Most sites associated with the old mines are widely known, but site 42Cb1001 is a newly-discovered site that is probably not known to most of the local population. Map 11 contains detail of the sites' locations, and it should be considered confidential. Also, the application contains enough information in the text that a person could probably locate the sites. Location detail in the non-confidential portions of the application needs to be limited.

Three cultural resource areas were previously identified, and these were reclaimed as part of the Abandoned Mines Reclamation Program work in the area in 1990. Two additional sites were located as part of the work done for the Willow Creek Mine. One of these consists of an area with three pictograph panels. The other includes 42 features associated with the Castle Gate Mines and the Castle Gate townsite. Both of these sites were considered potentially eligible for listing in the National Register of Historic Places.

Four new paleontological sites were found, each consisting of one or more trace fossils. These were not considered unique or unusual. However, the consultant recommended that any unusual fossil remains, especially fossil bone materials, encountered during mining be evaluated if possible.

Correspondence from the Division of State History says the background information material is accurate and well done and that their office concurs with the accuracy of the material.

Following the field investigations, site listing forms were prepared and submitted to the State Historic Preservation Office (SHPO). The applicant met with the SHPO to review cultural resource considerations and potential mitigation requirements. The application says the results of this meeting and subsequent discussions were incorporated in the mining and reclamation planning process in order to minimize or mitigate potential mining related impact.

Although the application describes some coordination efforts with the Division of State History, it does not show how cultural resources will be protected or how potential effects will be mitigated. It appears most potential effects are being avoided simply by not proposing disturbance in critical areas. October 24, 1995, correspondence to the Division from State History says the writer believes a determination of No Adverse Effect can be reached if sensitive treatment of the mine property is considered during the opening of the mine. It also says the

Castle Gate explosion would be a focus of their concern, and it recommends that this area not be reused.

Site 42Cb1001 is within the proposed disturbed area, but it does not appear this area will be disturbed. The closest disturbance to this site is the conveyor and a steep cut adjacent to the conveyor. It appears the cut slope forms about a 20-foot difference in elevation between the conveyor and the site. For this reason, there would probably be no damage to the pictographs from coal fines originating on the conveyor.

Although the applicant does not propose to disturb the pictographs, they are contained within the proposed disturbed area. Therefore, the Division should stipulate that they not be disturbed without specific consent from the Division and from State History.

The only part of site 42Cb1000 about which State History expressed concern is the area of the Castle Gate explosion. The explosion occurred in the Castle Gate No. 2 Mine. State History is concerned about the mine portal and feels this is the most important portion of site 42Cb1000. They believe it definitely needs to be protected, but the applicant does not propose to disturb this area.

The application needs to contain evidence of clearances from the Division of State History. The October 24, 1995, letter from State History should be included in the application. This combined with statements that the two major areas of concern would not be disturbed should be adequate.

**Findings:**

With the following exceptions, the applicant has complied with these portions of the regulations:

1. The application references Map 3-8 for cultural resources information. It appears this should be a reference to Map 11.
2. Map 11 and some of the cultural resources information in the text of the plan should be considered confidential. These materials contain enough detail for a person to easily locate the significant cultural resources sites identified in the application.
3. The application need to contain evidence of clearances from the Division of State History.

The Division should stipulate that site 42Cb1001 not be disturbed without specific

approval from the Division and the Division of State History.

## **LAND-USE RESOURCE INFORMATION**

Regulatory Reference: 30 CFR Sec. 783.22. UCA R645-301-411.100; R645-301-411.200

### **Analysis:**

#### **Current Uses**

Land uses of the proposed permit area are discussed in Section 3.4.2. The application references Map 3-9 and Map 9 for regional land use information, and Map 3-10 for previous mining activity. Maps 3-9 and 3-10 could not be located. It appears these should be called Maps 9 and 10.

According to the application, the primary constraints relative to the condition and capability of lands within the proposed permit area and adjacent areas to support various land uses are the rugged terrain of the area, the lack of significant precipitation, and the lack of available water for irrigation or stock on a large portion of the area. The topography is composed primarily of high plateaus intersected by deep drainages with steep-walled canyons and high rocky cliffs.

Topography and resource constraints limit land uses on the plateaus to wildlife habitat, low intensity grazing, undeveloped recreation, and scattered timber production. These areas have limited access because of the surrounding rugged terrain and harsh climatic conditions during part of the year. Soils on the plateaus are generally more developed than in the canyons, and higher precipitation and lower runoff because of the gentler terrain allow growth of some conifers.

Land use is even more limited in the narrow canyons and on ridgelines. In many areas, access is extremely difficult except in the very bottoms of some canyons. Reasonably feasible land uses are wildlife habitat, low intensity grazing, and occasional undeveloped recreational use. The potential for alternative postmining land uses is limited by shallow, poorly-developed soils with low water holding capacity, and a lack of surface or ground water sources.

Extensive historical mining and related activities have occurred in the Price River and lower Willow Creek valleys in the permit area. Several other canyons have dirt roads but are otherwise nearly undisturbed. Existing and potential uses in the valley bottom areas include mining, transportation, wildlife habitat, grazing, and undeveloped recreation.

In Section 3.4.2.2, the application describes existing land uses within the proposed permit area. These are divided into the categories in R645-100-200 and further subdivided. The primary uses listed are industrial/commercial, undeveloped lands, and forestry. Under industrial/commercial, the application includes underground coal mining, scattered oil and gas production, transportation and utilities, and electrical power generation. Under undeveloped lands, the application includes low intensity grazing, fish and wildlife habitat, and dispersed recreation. The only forestry use shown is limited timber production. Grazing and wildlife habitat are the dominant uses for undeveloped lands, and mining is the main industrial use.

According to the application, small cattle and sheep grazing operations utilize some of the high plateau areas on a seasonal basis. Typical stocking rates are about eight acres per animal unit month. There will be no surface disturbances on areas used for grazing.

A wide variety of fish and wildlife species use the area. In areas where more recent mining has occurred, such as the proposed surface facilities area, reclamation efforts over portions of the areas have resulted in effective vegetative reestablishment and general restoration of many of the premining habitat values.

Based on information in the application, it appears the land use in much of the proposed permit area is wildlife habitat and grazing and may not be, as the application states, undeveloped land. The difference between undeveloped land and land managed for wildlife habitat and grazing is difficult to define, however. The question is one of degree of management. Most of the area consists of critical elk winter range and critical and high value deer winter range. These habitats are considered vital to maintenance of local elk and deer populations, and, to the degree possible, the Division of Wildlife Resources is concerned about managing these lands for wildlife habitat. However, there may be little management on private lands. The amount of management the areas receive for grazing is difficult to determine based on the information in the application. It is probably limited to adjusting stocking rates and trying to maintain water supplies although there might be some vegetation manipulation on Bureau of Land Management lands.

When the Division released the performance bond for the former Willow Creek Mine (007/002), the land use was light industrial. The landowner and former permittee leased the area for this use. This use needs to be identified in the application. The application should also show whether this lease is still in effect.

To determine current land uses and decide which land use classifications are appropriate under the regulations, the Division needs comments from landowners. The applicant is required to include in the application copies of comments concerning the proposed postmining land use by the legal or equitable owners of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize

the proposed use of the land following reclamation. The application does not contain these comments. When the applicant seeks them, they should request comments concerning the premining land use as well.

The permit and adjacent areas are zoned by the Carbon County Planning Department as mining and grazing or critical environmental. The critical environmental designation is for areas above 7000 feet elevation and includes grazing, wildlife habitat, and some recreation activities. The application says the designated land use classifications and related zoning restrictions are consistent with both existing land uses and proposed mining activities.

The proposed permit area includes no public parks, components of either the National River or Trail Systems, renewable resource lands, areas designated unsuitable for mining, or other restricted use areas. It is assumed the application refers to the Wild and Scenic Rivers System where it says there are no components of the National River System in the proposed permit area.

It appears Section 3.4.2.4 is referring to unsuitability criteria when it says there are no renewable resource lands in the proposed permit area or adjacent areas. This needs to be clarified. The proposed permit area does contain renewable resource lands, but it probably does not contain areas that contribute significantly to the long-range productivity of water supply or of food or fiber products including aquifers and aquifer recharge areas. The significance criterion is used to designate areas unsuitable for coal mining and reclamation activities.

### **Previous Mining Activity**

The earliest recorded mining activity in the area was the development of the Castle Gate No. 1 Mine in 1888. Extensive mine development and operations continued in the area through World War II, but mining gradually decreased until the last of the Castle Gate Mines closed in 1972.

Essentially all of the previous historical mining operations have been conventional room and pillar mines extracting coal reserves from one or more of the known coal seams in the Blackhawk Formation. Table 3.4-1 summarizes available information on previous historical mining operations, including mine names, seams mined, period of mining, and mining methods. Map 10 shows the extent of underground and known surface operations.

Section 5.3.1.2 indicates the mine surface facilities area and the Castle Gate Preparation Plant were in all probability undeveloped lands utilized for wildlife habitat prior to the introduction of mining. This statement is probably correct since it is assumed there was little wildlife management in the area before 1888. There may have been some limited grazing, however.

The information in the portion of the application describing previous mining activity fulfills regulatory requirements.

**Findings:**

With the following exceptions, this portion of the application is considered complete and accurate:

1. The application references Maps 3-9 and 3-10, but these maps could not be located in the application.
2. The application needs further information about the current land uses of the proposed permit area. In particular, the applicant should include landowner comments about current uses so it can be determined if certain areas are undeveloped land or if they can be classified as wildlife habitat or grazing lands.
3. The application needs to describe the industrial use in the area of the formerly-permitted Willow Creek Mine. This use may have been terminated.

**POSTMINING LAND USES**

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133. UCA R645-301-412, R645-301-413

**Analysis:**

These regulations are not addressed in a dedicated portion of the application, but Section 5.3.1.2 mentions the postmining land use. It says the applicant will reclaim surface disturbance areas to a postmining land use of wildlife habitat. It is assumed the postmining land uses of areas outside the proposed disturbed area will not change.

As discussed under "Land-Use Resource Information," it is unclear what degree of management the proposed permit area receives. For this reason, it is difficult to determine the premining land use to which the postmining land use would be compared.

The application is required to contain a detailed description of the proposed use, following reclamation, of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land-use policies and plans. This description should particularly relate to the landowner's desires. The plan must explain how the proposed postmining land use is to be achieved and the necessary support activities which may be needed

to achieve it. If the postmining land use is considered a change from the premining land use, the application must provide information in compliance with R645-301-413.

The application needs to contain comments concerning the proposed postmining land use from the legal or equitable owners of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation. If the use will be wildlife habitat, this is a change from the present use of undeveloped land discussed in the application. For the portions of the formerly-permitted Willow Creek Mine that are/were leased for an industrial use, wildlife habitat could constitute a change.

**Findings:**

This portion of the application is considered complete and accurate with the following exceptions:

1. The application needs to contain comments from legal and equitable owners of lands in the proposed permit area concerning the postmining land use. It also needs to contain comments from governmental agencies that would have to authorize or initiate the use.
2. The application is required to contain a detailed description of the proposed use, following reclamation, of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land-use policies and plans. This description should particularly relate to the landowner's desires for the proposed disturbed area. The plan must explain how the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve it. If the postmining land use is considered a change from the premining land use, the application must provide information in compliance with R645-301-413.

**AIR POLLUTION CONTROL PLAN**

Regulatory Reference: 30 CFR Sec. 784.26, 817.95. UCA R645-301-420

**Analysis:**

Air quality information is presented in Sections 3.5 and 4.4. These sections contain information about air quality in the general area and about methods to be used to control

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emissions. Exhibit 4 contains a copy of the Notice of Intent submitted to the Division of Air Quality.

The Division of Air Quality is the primary regulatory authority for this regulation and will be responsible for reviewing the applicant's commitments. The applicant will need to obtain an approval order before beginning construction. However, for the present, the applicant has complied with the requirements of these regulations.

**Findings:**

For the present, the applicant has complied with the requirements of these regulations. Before beginning construction, the applicant will need to obtain an approval order from the Division of Air Quality.

**RECOMMENDATIONS**

The Willow Creek Mining and Reclamation Plan Application cannot be approved until the deficiencies discussed in this document are resolved. The Division should stipulate that cultural resource site 42Cb1001 not be disturbed by mining and reclamation activities without specific approval from the Division and the Division of State History.