

0017



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

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June 11, 1999

TO: File  
THRU: Daron Haddock, Permit Supervisor  
FROM: Paul Baker, Reclamation Biologist  
RE: Topsoil Borrow Area, Cyprus Plateau Mining Company, Star Point Mine, ACT/007/006-99B, Folder #2, Carbon County, Utah

**SUMMARY:**

On February 17, 1999, the Division received a proposal from Cyprus Plateau Mining Corporation for a topsoil borrow area northeast of the existing mine surface facilities. A revised proposal was received June 3, 1999.

The amendment is organized separately from the rest of the mining and reclamation plan with its own baseline information, operation plan, and reclamation plan. All of this information is contained in Exhibit 233. This exhibit is referenced in the section titled "Legal, Financial, Compliance, and Information" which has been modified for this application.

In addition to the references to Exhibit 233, Cyprus has made a few changes to the ownership and control section, including some address changes, a change in land ownership for a 21.25 acre piece of land in the permit area, and additions to the list of consultants. These changes are minor and were not reviewed.

**TECHNICAL ANALYSIS:**

**ADMINISTRATIVE INFORMATION**

**RIGHT OF ENTRY**

Regulatory Reference: R645-301-114

**Analysis:**

The applicant owns the property on which the topsoil borrow area would be located. Appendix 1-1 contains a letter from Utah Railway Company giving Cyprus Plateau Mining Corporation permission to use the old railroad grade known as the Wattis Branch as a transportation corridor for hauling topsoil and other material for reclamation purposes. This complies with the requirements of this section of the regulations.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

## **ENVIRONMENTAL RESOURCE INFORMATION**

### **HISTORIC AND ARCHÆOLOGICAL RESOURCE INFORMATION**

Regulatory Reference: R645-301-411.140

**Analysis:**

Cultural resources information is in Appendix 4-1 and summarized in Chapter 4 of Exhibit 233. The area contains a historic trash scatter with tobacco tins and some cans. Intermixed in this area was a prehistoric gray quartzite secondary flake. This site was not considered significant. Appendix 4-1 contains a map showing the area that was inventoried.

The area contains no cemeteries, public parks, or units of the National System of Trails or the Wild and Scenic Rivers System.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. The Division should recommend to the Division of State History that there will be no effects on cultural resources.

### **VEGETATION RESOURCE INFORMATION**

Regulatory Reference: R645-301-321

**Analysis:**

Detailed vegetation information is in Appendix 3-1 and was gathered in 1998. The proposed topsoil borrow area contains a sagebrush/grass community with scattered pinyon and juniper trees. According to the vegetation survey, it was probably once a mature pinyon/juniper community that was disturbed by chaining or other range improvement activities.

The proposed borrow area had 57.63% cover, and the majority of the cover was from grasses (54.24% relative cover). Dominant grasses were blue grama, and Salina wild rye. Shrubs had 42.39% relative cover, and the dominant species were black sage, Wyoming big sage, and broom snakeweed.

The proposed reference area had a total of 58.13% cover, and relative cover was distributed in a

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similar manner to the proposed disturbed area. The same species were dominant, and the cover values were not different statistically.

Production in the proposed disturbed and reference areas was 850 and 1000 pounds per acre, respectively, and both areas were rated as being in good range condition. Although these values are estimates from the Natural Resources Conservation Service and cannot be compared statistically, they are similar.

Woody plant density was statistically higher in the proposed disturbed area (11032 per acre) compared to the proposed reference area (8767 per acre). Since these values are used as a guide in developing a technical revegetation standard, the difference is not critical.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

**FISH AND WILDLIFE RESOURCE INFORMATION**

Regulatory Reference:

**Analysis:**

**Fish and Wildlife Information**

The application text references Appendix 3-2 for wildlife information from Chris Colt of the Division of Wildlife Resources. According to the application and the letter from Mr. Colt, the borrow area is considered by Wildlife Resources to be high value big game winter range. This is also shown on Map 322.220a in the current mining and reclamation plan.

**Threatened and Endangered Species Information**

According to the application, there is a peregrine falcon nest that may or may not be within one mile of the proposed borrow site. Future surveys using GPS equipment should better define the nest location. The letter from Mr. Colt indicates the closest nest is 1.1 miles away. Map 322.220a in the current mining and reclamation plan shows a prairie falcon scrape which the text of the plan says was used by peregrine falcons beginning in 1996. The map confirms the information from Wildlife Resources that the closest nest is just over one mile away.

Bald eagles are the only other listed species that has a potential of being in the area, and this would only be in the winter. There are no known nesting sites in the vicinity of the proposed borrow area.

The consultant doing the vegetation survey searched for endangered, threatened, endemic, or

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otherwise sensitive plants species and found none. The area does not contain habitat for any listed species although it contains potential habitat for at least two species on the Bureau of Land Management sensitive species list.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

**LAND USE RESOURCE INFORMATION**

Regulatory Reference: R645-301-411

**Analysis:**

The proposed borrow area has been used primarily as rangeland and for wildlife habitat, but there is limited recreational use. Production in the area is presented with the vegetation information. An abandoned Utah Railway railroad grade runs through a portion of the southwest corner of the borrow area, and electrical transmission lines run parallel to the borrow area on property to the east and north. There is no farming in the area.

The area is zoned by Carbon County for mining and grazing, and there is no known previous mining activity.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

Regulatory Reference: R645-301-411.141, R645-301-323

**Archaeological Site and Cultural Resource Maps**

The one identified cultural resources site is shown on a map in Appendix 4-1 together with the location of the cultural resources survey.

**Vegetation Reference Area Maps**

The proposed reference area is shown on Drawing 3-1A.

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**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

## **OPERATION PLAN**

### **PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES**

Regulatory Reference: R645-301-140

**Analysis:**

Since the area contains no cultural resources, no protection plan is needed.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

## **AIR POLLUTION CONTROL PLAN**

Regulatory Reference: R645-301-420

**Analysis:**

In Section 420, the applicant commits to perform all mining activities in compliance with the requirements of the Clean Air Act. Chapter 4 of the current mining and reclamation plan contains further information about the Air Quality Approval Order and coordination with the Division of Air Quality.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

## **INTERIM STABILIZATION**

Regulatory Reference: R645-301-331

**Analysis:**

The application does not contain a specific plan for interim stabilization. Interim stabilization is

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not generally required at topsoil borrow sites; however, the existing mining and reclamation plan contains an interim revegetation plan that could be used if necessary.

This regulation also requires that the applicant minimize disturbance. The application discusses ways the applicant intends to try to find other sources of growth medium to reclaim the mine. All possible alternatives should be exhausted before the borrow site is disturbed. The proposed borrow site is one of the better sagebrush/grass ranges in the area. It has an excellent mix of grasses and very desirable shrubs, and it is much preferred that the site not be disturbed.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

**FISH AND WILDLIFE PROTECTION PLAN**

Regulatory Reference: R645-301-333

**Analysis:**

**Protection and Enhancement Plan**

The regulations require a protection and mitigation plan when the permit area contains habitats of unusually high value. The proposed topsoil borrow area is in high value big game winter range, but this is not within the definition of habitat of unusually high value. Nevertheless, it is recommended there be no disturbance between December 1 and April 15.

**Endangered and Threatened Species and Bald and Golden Eagles**

The letter from Chris Colt of the Division of Wildlife Resources contained in Appendix 3-2 says the peregrine falcon nests are far enough away from the proposed activities and that they are screened well enough that there should be no effect on nesting birds.

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

The area is an upland site with no indication of wetlands or riparian areas. As discussed above, it is not habitat of unusually high value for wintering elk and deer.

**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

## **RECLAMATION PLAN**

### **LAND USE RECLAMATION PLAN**

Regulatory Reference: R645-301-412

#### **Analysis:**

The applicant has not proposed an alternative postmining land use. Reclamation activities are intended to restore the premining land uses of grazing and wildlife habitat. The procedures needed to achieve the postmining land use are detailed in other sections of the application and existing mining and reclamation plan, especially those sections dealing with soils and biology.

#### **Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

## **REVEGETATION**

Regulatory Reference: R645-301-341

#### **Analysis:**

##### **Revegetation Plan**

The application is required to contain a schedule of reclamation activities. Figure 5-1 is a borrow area reclamation schedule showing salvage operations running from late July through October; regrading, topsoil redistribution, and seedbed preparation happening in October and November, and fertilizing, seeding, mulching, and planting occurring in late October through December. Some revegetation activities could occur in the spring if required by weather conditions and approved by the Division.

The Division is concerned about leaving the borrow area with no vegetative cover for too long. With no vegetative cover, the area is not protected from erosion, and weeds could have a chance to become established. With the schedule in the application, however, weeds would have very little time to become established and reseed before the area is prepared and seeded. No part of the borrow area should be allowed to go through the spring and summer without vegetation on it. With this revegetation schedule, gouging would be done at a time when it would be most likely to kill any seedlings of cheatgrass that had germinated.

In addition to the reclamation schedule, the applicant has included various commitments to revegetate the area as soon as possible after disturbance. As required in R645-30-1-352, revegetation must occur as contemporaneously as practicable with mining operations.

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As described in the operation plan, only a little over half of the borrow site would be opened at first. Topsoil would be salvaged and stockpiled from this area then borrow operations would occur. Next, topsoil from the other part of the borrow area would be spread on the part already disturbed. In this way, the applicant's plan limits the amount of area from which sediment could be produced. The schedule and commitments relating to timely revegetation are considered adequate.

Once the borrowed soils have been removed, the borrow area will be regraded, ripped to relieve compaction, and deep gouged or similarly scarified. Tables 341.220c and 341.220d in Section 341 of the current mining and reclamation plan show seed and planting mixes that would be used.

The seed and planting mixes in Tables 341.220c and d are designed for sagebrush areas. The applicant has made changes to the seed mix in accordance with Division requirements and recommendations. These changes include deletion of crested wheatgrass from the mix, adding black sage and blue grama, specifying that the variety "Gordon Creek" of Wyoming big sage will use, and changing the number of pounds of certain species that will be planted. These changes meet regulatory requirements and should be approved.

Mulching will be done as shown in the current mining and reclamation plan. According to this plan, hay and/or straw will be applied before final soil surface preparation, and this will be incorporated in the soil by plowing along the contour, deep gouging, or a combination of these methods. After seeding, straw or hay mulch will be applied and anchored by either crimping it or applying a tackifier. This mulching method has worked very well at other sites.

No irrigation is planned, and pesticides will not be used unless they are approved by the Division.

### **Success Standards**

As discussed above, vegetation in the proposed reference and disturbed areas is very similar. The reference area is considered an acceptable standard.

The Division is required to gain approval from wildlife agencies for the woody species density standards. The standard included in the application, 4000 plants per acre, was approved by the Division of Wildlife Resources and should allow for greater diversity than the higher standard originally proposed.

### **Wildlife Habitat**

The guzzler and fence will be moved from the current location, and the exact site to which it will be moved will be determined in conjunction with the Division. No other enhancements are planned.

The seed mix in the application is adequate for this area and should provide good wildlife habitat conditions.

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**Findings:**

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations.

**RECOMMENDATIONS:**

Reviewed sections of the application are considered adequate and can be approved.

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