

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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July 8, 2005

TO: Internal File

THRU: D. Wayne Hedberg Permit Supervisor

THRU: Steve Fluke Team Lead

FROM: Joe Helfrich, Biologist

RE: SITLA Muddy Tract Lease amendment, Convulsion Canyon Mine, C/041/0042  
Task # 2157

## **SUMMARY:**

On February 11, 2005 the Division received an application for the addition of the SITLA Muddy Tract in the mine's MRP. The proposed amendment will add 2,134.19 acres to the Convulsion Canyon mine permit area. The SITLA lease addition, (ML 49443-OBA), can be located on the Accord Lakes, Emery West, Flagstaff, and Heliotrope 7.5minute quadrangle maps, T21S, R5E, section 4, Lots 1, 2, 3, 4, S1/2S1/2, section 5, Lots 1, 2, 3, 4, S1/2S1/2, Section 7, Lots 2, 3, 4, S1/2NE1/4, SE1/4, Sections 8 and 9 All. The permit change will not include any surface disturbance as it is intended to address the addition of the state lease to the current permit. This memo will address the biology sections of the regulations.

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**TECHNICAL ANALYSIS:**

## **GENERAL CONTENTS**

### **MAPS AND PLANS**

Regulatory Reference: 30 CFR 777.14; R645-301-140.

#### **Analysis:**

Wildlife maps for the Biology section of the application include Plate 3-1, Plant Communities and Sampling areas, Plate 3-2, Elk Range, and Plate 3-3 Deer Range and Raptor Nests. The boundaries of the SITLA Muddy lease tract need to be clearly identified on Plates 3-1, 2, and 3. Plate 3-1, (Plant Communities and Sampling areas of the SITLA Muddy Tract), was used to ground truth the vegetation communities. As there are many communities represented in such a small area on the map that it was very difficult to clearly identify the various communities in the field. Some appeared to be correct, some appeared to be incorrect, and some appeared to be in a different location than as depicted on the map, and some were indiscernible. Due to the lack of time not every plant community identified on plate 3-1 was ground truthed during the field visit. The applicant needs to revise the map so that it is clearly legible, ground truthed and includes the riparian areas within the Muddy Tract. This includes portions of Cowboy creek, and springs and their associated reaches within the tract. The land use designations for big game on plate 4-1B do not coincide with those on plates 3-2 and 3-3. The permit area boundaries need to be clearly identified on all plates. The maps show the property boundary, which may also be the permit area boundary.

#### **Findings:**

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the applicant needs to provide the following in accordance with:

**R645-301-140;** • The boundaries of the SITLA Muddy lease tract need to be clearly identified on Plates 3-1, 2, and 3. [jch]

- There are many plant communities in such a small area that it was very difficult to clearly identify the various communities in the field. Some appeared to be correct, some appeared to be incorrect, and some appeared to be in a different location than as depicted on the map, and some were

indiscernible. The applicant needs to revise the map so that it is clearly legible, coincides with the vegetative communities on the ground and includes the riparian areas within the Muddy Tract. This includes portions of Cowboy creek, and springs and their associated reaches within the tract. [jch]

- The land use designations for big game on plate 4-1B need to coincide with those on plates 3-2 and 3-3. [jch]
- The permit area boundaries need to be clearly identified on all plates. [jch]

## ENVIRONMENTAL RESOURCE INFORMATION

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

## VEGETATION RESOURCE INFORMATION

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

### Analysis:

Vegetation types specific to the Muddy lease tract are identified on plate 3-1, (Plant Communities and Sampling areas), of the application. The application needs to include a description of the vegetation types located within the proposed lease tract and a discussion on the potential subsidence related impacts from mining. The application refers to an EIS that is not included in the application nor does it appear to be a part of the MRP. On page 3-18 of the application there is a red line reference to the T, E, & S plant species listed in appendix 3-11. Table 10 in the appendix includes fishes, birds, mammals, and amphibians but does not include plants. The application needs to include a list of possible threatened, endangered and candidate plant species identified in the U. S. Fish and Wildlife Service current listing. Table 3-1 on page 3-14 of the MRP provides a 2003 listing of the plant species. The application needs to include a reference to this table and the table needs to be updated to include the current 2005 plant listings.

### Findings:

The information provided is not adequate to meet the requirements of this section of the regulations. Prior to approval the applicant must provide the following in accordance with:

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**R645-301-320;** The application needs to include a description of the vegetation types located within the proposed lease tract and a discussion on the potential subsidence related impacts from mining. The application refers to an EIS that is not included in the application nor does it appear to be a part of the MRP. On page 3-18 of the application there is a red line reference to the T, E, & S plant species listed in appendix 3-11. Table 10 in the appendix includes fishes, birds, mammals, and amphibians but does not include plants. The application needs to include a list of possible threatened, endangered and candidate plant species identified in the U. S. Fish and Wildlife Service current listing. Table 3-1 on page 3-14 of the MRP provides a 2003 listing of the plant species. The application needs to include a reference to this table and the table needs to be updated to include the current 2005 plant listings in order for the Division to make a finding that the information contained in the application meets the requirements of this section of regulations. The list of species will be "E" mailed to the applicant. [jch]

## FISH AND WILDLIFE RESOURCE INFORMATION

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

### Analysis:

The fish and wildlife information is provided for in chapter three of the application. Included are Appendix 3-11, Muddy Creek Technical Wildlife report, Plate 3-1, Plant Communities and Sampling areas, Plate 3-2, Elk Range, and Plate 3-3 Deer Range and Raptor Nests, Appendix 3-12, Mexican Spotted Owl Survey and table 3-2, Native Utah Wildlife Species of Special Interest. The application includes a description of the wildlife located within the proposed Muddy tract and a discussion for minimizing impacts to wildlife and livestock as a result of anticipated effects of subsidence. A current list of Threatened, Endangered, and candidate fish and wildlife species is included in the application in appendix 3-12, Table 10.

### Findings:

The information in the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the applicant must provide the following in accordance with:

**R645-301-322;** A current raptor inventory needs to be included in the application. The application needs to include a discussion on how the potential impacts from subsidence during mining operations will be minimized. [jch]

## **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 application does not include or make reference to a protection and enhancement plan for minimizing impacts to wildlife and livestock as a result of the effects of subsidence.

##### **Endangered and Threatened Species**

The application does not address potential water depletions from mining operations that may have an affect on endangered fish species identified in pertinent fish recovery programs. Volumes of water consumed in mining processes in excess of 100 acre feet/year require mitigation with the U. S. Fish and Wildlife Service. The application needs to include calculations of current water depletions from mining activities.

##### **Bald and Golden Eagles**

Appendix 3-11 of the application includes the status of Bald and Golden Eagles up to 2003. Bald Eagles do not nest in the area but are typically inhabitants during migration. According to the Cirrus report provided as appendix 3-11 five Bald Eagles have been seen along Cowboy creek during the fall migration of 2003. As noted in the Fish and Wildlife Resource Information section a current raptor survey should be included to update the status of Golden Eagles in the Muddy Tract lease area.

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

The application needs to include a description of these areas including a discussion that addresses how impacts from subsidence during mining operations will be minimized.

#### **Findings:**

The information in the application does not address the requirements of these sections of the regulations. Prior to approval the applicant must provide the following in accordance with:

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**R645-301-322, -301-333, -301-342, and -301-358;** the applicant needs to address these sections of the regulations. They include:

**A protection and enhancement Plan;**

The application needs to include a protection and enhancement plan for minimizing impacts to wildlife and livestock as a result of the effects of subsidence. [jch]

**Endangered and Threatened Species;**

The application does not address potential water depletions from mining operations that may have an affect on endangered fish species identified in pertinent fish recovery programs. Volumes of water consumed in mining processes in excess of 100acre feet/year require mitigation with the U. S. Fish and Wildlife Service. The application needs to include calculations of current water depletions from mining activities. [jch]

**Bald and Golden Eagles and;**

As noted in the Fish and Wildlife Resource Information section a current raptor survey should be included to update the status of Golden Eagles in the Muddy Tract lease area. [jch]

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

The application needs to include a description of these areas including a discussion that addresses how impacts from subsidence during mining operations will be minimized. [jch]

**VEGETATION**

Regulatory Reference: R645-301-330, -301-331, -301-332.

**Analysis:**

The application needs to include a description of the vegetation types located within the proposed lease tract and a discussion on the potential subsidence related impacts from mining. The application refers to an EIS to that is not included in the application nor does it appear to be a part of the MRP.

**Findings:**

The information in the application does not address the requirements of these sections of the regulations. Prior to approval the applicant must provide the following in accordance with:

**R645-301-330, -301-331, -301-332;**The application needs to include a description of the vegetation types located within the proposed lease tract and a discussion on the potential subsidence related impacts from mining. The application refers to an EIS to that is not included in the application nor does it appear to be a part of the MRP. [jch]

**RECOMMENDATIONS:**

These deficiencies should be addressed prior to approval of the proposed lease addition.