

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

March 16, 2006

TO: Internal File

THRU: Karl R. Houskeeper, Environmental Scientist/Inspector, Engineer, Team Lead

FROM: Jerriann Ernstsens, Ph.D., Environmental Scientist/Biologist

RE: Revised Appendix X and GVH #5A, 7, 8, 9, Andalex Resources, Inc., Centennial Mine, C/007/0019, Task ID #2420

### **SUMMARY:**

The Division received an amendment from the Centennial Mine for the "Ventilation Assistance Program" or the GOB hole project (GOB). This memo refers to holes drilled or planned for drilling starting in 2006. To date, these include holes 5A, 7, 8, and 9.

### **TECHNICAL ANALYSIS:**

## **GENERAL CONTENTS**

### **PERMIT APPLICATION FORMAT AND CONTENTS**

Regulatory Reference: 30 CFR 777.11; R645-301-120.

#### **Analysis:**

The Mine and Reclamation Plan (MRP) meets the requirements of R645-301-121.100 or R645-301-121.200 for the Biology Chapter or Archeology Section because the Permittee presents current, clear, or concise information.

#### **Findings:**

Information provided in the plan meets the minimum Permit Application Format and Contents in General Contents requirements of the regulations.

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## 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<sub>[Sheila Mo1]</sub>

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

#### Analysis:

For the GOB hole project, Senco-Phenix conducted a Class III survey for holes 5A, 7, 8, and 9. The results showed that there were no historic resources within the project area. The Division defined the “area of potential effect” as the proposed degas well sites and the 800-foot access road extension. The Division evaluated the survey information and made a finding of “*no historic properties affected*” for this project. There is current correspondence with SHPO for this project (03072006 Outgoing; ~03172007Incoming).

#### Findings:

Information provided in the plan meets the minimum Environmental - Historic and Archeological Resource Information requirements of the regulations.

### VEGETATION RESOURCE INFORMATION<sub>[Sheila Mo2]</sub>

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

#### Analysis:

The amendment meets the R645-301-321 requirements of the regulations because there is adequate discussion of plant communities observed within the project area.

For the 2005/2006 GOB hole project, the Permittee provided vegetation information prior to drilling in the spring and summer. Plate 19A (Vol. 4) illustrates the community types for the project sites. The Permittee provides productivity values, ecological site descriptions (ESD), and determinations that the sites are fair to better condition as estimated from ESD (NRCS).

In 2005, the Division first agreed that the Permittee could use the Range Site method (Division’s Vegetation Guidelines) for the standard of success. This agreement was made because the sites were under snow when they needed to drill, therefore, the Permittee could not collect baseline data for GOB 1, 3, 5, and 6. This agreement was discussed, however, during the

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review process for GOB#4. The Permittee and Division agreed that it would be easier to have all holes (even 1, 3, 5, and 6) meet the standards set by reference area method rather than by the Range Site method.

Dr. Patrick Collins conducted a vegetation survey for the GOB hole project during the summer of 2005. The report includes analysis of the drill hole and reference area sites, as well as, includes pictures taken at identifiable and repeatable photo locations of the project sites prior to disturbance (except 1, 3, 5, and 6). The report also includes community descriptions of the hole sites. Dr. Collins debates whether the reference area for these holes - raise the standard above what should be imposed. If the Permittee agrees, the Permittee and Dr. Collins will need to bring this concern to the Division.

### **Findings:**

Information provided in the plan meets the minimum Environmental - Vegetation Resource Information requirements of the regulations.

## **FISH AND WILDLIFE RESOURCE INFORMATION**[Sheila Mo3]

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

### **Analysis:**

#### GENERAL WILDLIFE

##### *Ungulates*

The Permittee states that there is elk and deer habitat within the GOB hole project area in the Mathis lease, but that the habitat is not designated as critical or crucial.

##### *Fish or other aquatics*

There are no known fisheries close to the GOB hole sites within the Mathis lease.

##### *Migratory Birds, Game Birds, and Raptors*

There are 22-raptor nest within the permit and adjacent areas. The results of the 2004 survey show that two golden eagle nest were active, with one containing young.

There are sage-grouse leks in the "Park" area and somewhat near the GOB hole project. DWR may provide the information for those leks. This type of information is considered protected under the Division's formatting regulation.

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**THREATENED, ENDANGERED, AND SENSITIVE ANIMAL/PLANT SPECIES**

The Division, in consultation with USFWS and Utah Heritage Group (DWR), does not consider that the GOB hole project will impact TES species or their habitat. The USFWS was concerned about possible bald eagles in the area. DWR, however, did not report of any occurrence data for TES species within a 2.5-mile radius of the drilling sites located within T12S, R11E, S31.

*Mexican Spotted Owl (MSO)*

Mel Coonrod (EIS) provided documentation stating that the models and other criteria do not support that there is suitable habitat for MSO within the GOB hole area in the Mathis lease. The Utah Heritage Group supports that there are no known observations of MSO within the project area.

*Plants*

The MRP provides a letter from Patrick Collins stating that he considered there is little probability that there are federally listed TE species within or near the holes drilled in spring 2005. Dr. Collins conducted a survey for GOB 4 and for 5A, 7, 8, and 9 (2005) and did not observe TES species.

**Findings:**

Information provided in the plan meets the minimum Environmental - Fish and Wildlife Resource Information requirements of the regulations.

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION** [Sheila Mo4]

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

**Analysis:**

**Archeological Site Maps** [Sheila Mo5]

The amendment meets R645-301-411.141 because there are archeological maps showing known resource locations within the permit area. These maps are in the Confidential Files (Division PIC room after March 2006).

### **Vegetation Reference Area Maps**[Sheila Mo6]

The Permittee will use reference areas for the standard of success for the GOB hole project. The amendment includes a map that details the locations of the reference areas (Appendix X, Figure 1-1 and Attachment 3-1).

#### **Findings:**

Information provided in the plan meets the minimum Environmental - Maps, Plans, and Cross Section Resource Information requirements of the regulations.

## **OPERATION PLAN**

### **PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES** [Sheila Mo7]

Regulatory Reference: 30 CFR 784.17; R645-301-411.

#### **Analysis:**

The amendment meets the requirements of R645-301-411.144 because the Permittee identifies parks or historic resources that mining operations may adversely affect. The Permittee provides an adequate protection plan.

#### **Findings:**

Information provided in the plan meet the minimum Operations - Protection of Public Parks and Historic Places requirements of the regulations.

## **FISH AND WILDLIFE INFORMATION**

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

#### **Analysis:**

### GENERAL WILDLIFE

#### **Protection and Enhancement Plan** [Sheila Mo8]

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*Ungulates*

The Division, in consultation with DWR, does not consider that traffic or construction will impact the ungulates during the GOB hole project in the Mathis lease.

*Fish or other aquatics*

The Division has no concerns that the project will impact fisheries or their habitat during the GOB hole project in the Mathis lease.

*Migratory Birds, Game Birds, and Raptors*

The Permittee will conduct fly-over raptor surveys during the years the GOB hole project is active (Appendix X, Sec. 322.200). Currently, the Division has no concerns that the project will impact nesting raptors or their nests because there are no nests within a 0.5-mile buffer zone of GOB hole sites within the Mathis lease.

Currently, the Permittee will access the drill hole sites within the Mathis lease using a dirt road starting near the mine facilities area. This southern access route will prevent impacting strutting grouse from mining operation-related traffic.

**THREATENED, ENDANGERED, AND SENSITIVE ANIMAL/PLANT SPECIES**

The Division, in consultation with USFWS and Utah Heritage Group (DWR), does not consider that the GOB hole project will impact TES species or their habitat. The Division extends the same finding of no impact for the nearby 2006 drill hole project.

The Permittee provide the results of a plant TE survey for the 2005/2006 GOB project. The Division will coordinate with the USFWS and Permittee to prevent taking if any known reports ever show that there are TE species within the area.

**Endangered and Threatened Species [Sheila Mo9]**

*Plants*

The Permittee submitted the plant-related TE results with the vegetation survey for the GOB hole project.

*Colorado River Fish*

The Permittee provided the water consumption values that show there is a net gain of water to the Colorado River system.

**Bald and Golden Eagles** [Sheila Mo10]

There are no known bald or golden eagle nests within a 0.5-mile buffer zone of GOB sites in the Mathis lease area.

**Wetlands and Habitats of Unusually High Value for Fish and Wildlife** [Sheila Mo11]

There are no known wetlands within the GOB sites in the Mathis lease area.

Section 333 should include examples of how the Permittee plans to implement the commitment to protect habitat (R645-301-333).

**Findings:**

Information provided in the plan meets the minimum Operations - Fish and Wildlife Information requirements of the regulations.

**VEGETATION**[Sheila Mo12]

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

**Analysis:**

The amendment meets R645-301-330, R645-301-331, and R645-301-332 because the Permittee provides measures to disturb the smallest area possible and to apply interim reclamation practices when applicable.

For the GOB hole project, the Permittee will revegetate topsoil piles with an interim seed mix. The Permittee will use the adjusted final seed mix for the contemporaneous and final reclamation of the drill sites.

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**Findings:**

Information provided in the plan meets the minimum Operations - Vegetation requirements of the regulations.

## **RECLAMATION PLAN**

### **GENERAL REQUIREMENTS**[Sheila Mo13]

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

**Analysis:**

For the GOB hole project, the plan includes to remove all structures, recontour the site to approximate premining contours, rip the soil, and replace salvaged/stored topsoil. The reclamation plan does not include irrigation.

**Findings:**

Information provided in the plan meets the minimum Reclamation - General Requirements of the regulations.

### **PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES**[Sheila Mo14]

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

**Analysis:**

The amendment meets R645-301-342 and R645-301-358 because the Permittee provides enhancement and protection measures during the reclamation phase of operations. For the GOB hole project, enhancement measures include to apply a seed mix that is suitable for fish and wildlife habitat.

**Findings:**

Information provided in the plan meets the minimum Reclamation - Protection of Fish, Wildlife, and Related Environmental Values requirements of the regulations.

**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:**

**Revegetation: General Requirements**[Sheila Mo15]

The amendment meets R645-301-353 through R645-301-356 because the Permittee provided a reclamation plan and discussion of how the reclamation measures will meet the performance standards.

For the GOB hole project, the Permittee plans to use seed and apply mulch. The seed mixes for interim and final reclamation are not the same. The interim seed mix will include a blend of native grasses. For final reclamation, the Permittee will use the final seed mix. The Permittee will apply wood fiber mulch at 2,000 pounds per acre. The Permittee will use the "reference area method" for measuring the standard of success. The NRCS will assign range site Ecological Site Descriptions and productivity values for the drill sites.

**Findings:**

Information provided in the plan meets the minimum Reclamation - Revegetation requirements of the regulations.

**RECOMMENDATIONS:**

Approve the amendment.