

0036



IN REPLY REFER TO:

# United States Department of the Interior

OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
P.O. Box 46667  
Denver, Colorado 80201-6667

November 1, 2004

RECEIVED

NOV - 3 2004

DIV. OF OIL, GAS & MINING  
UT-0022

INCOMING  
C0070019  
OK

Mr. Mike Glasson  
Environmental Coordinator  
Andalex Resources, Inc.  
P.O. Box 902  
Price, Utah 84501

**COPY**

Dear Mr. Glasson:

On October 25, 2004, the Department of the Interior approved a mining plan modification for Federal lease UTU-79975 at Andalex Resources, Inc.'s Centennial Mine. This mining plan action relates to Federal lands associated with the Utah Department of Natural Resources, Division of Oil, Gas, and Mining's State Final Findings and Supporting Documentation, Summit Lease Tract - Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019 approved on September 3, 2004.

I have enclosed a copy of the mining plan approval document and associated map for this new mining plan. Please read the terms and conditions of the mining plan approval document carefully. Mining and reclamation operations must be conducted in accordance with both the Utah state permit and the approved mining plan.

The October 25, 2004, approval allows you to initiate coal mining operations in Federal lease UTU-79975 within the area of mining plan approval.

If you have any questions, please contact me at (303) 844-1400, extension 1500.

Sincerely,

Carl R. Johnston  
Natural Resource Specialist  
Utah Federal Lands Coordinator

enclosure

- cc: BLM - Utah State Office
- BLM - Price Field Office
- Utah Department of Natural Resources
- OSM - Denver Field Division

File in:

- Confidential
- Shelf
- Expandable

Refer to Record No. 0036 Date 11/01/2004

In C 0070019, 2004 Incoming

For additional information



# **MINING PLAN DECISION DOCUMENT**

**Andalex Resources, Inc.**

**Centennial Mine**

**Federal Lease UTU-79975**

**Carbon County, Utah**



**U.S. Department of the Interior  
Office of Surface Mining Reclamation and Enforcement**

**Prepared October 2004**

## CONTENTS

Centennial Canyon  
Federal Lease UTU-79975  
Mining Plan Decision Document

1. Memoranda
  - a. Memorandum from the Director, Office of Surface Mining Reclamation and Enforcement, to the Assistant Secretary, Land and Minerals Management
  - b. Memorandum from the Regional Director, Western Regional Coordinating Center, to the Director, Office of Surface Mining Reclamation and Enforcement
2. Location Maps
3. Chronology
4. National Environmental Policy Act Compliance Documents
5. Letters of Concurrence and Consultation:
  - a. Bureau of Land Management
  - b. U.S. Fish and Wildlife Service
  - c. State Historic Preservation Office
6. Mining Plan Approval Document
7. State Findings and Decision

Utah Department of Natural Resources, Division of Oil, Gas and Mining (UT-DOGM)  
State Final Findings and Supporting Documentation, Summit Lease Tract – Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019.
8. Notifications

RECEIVED  
NOV 03 2004  
DIV. OF OIL, GAS & MINING



# United States Department of the Interior

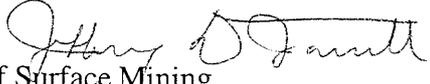
## OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Washington, D.C. 20240

OCT 19 2004

### MEMORANDUM

To: Rebecca W. Watson  
Assistant Secretary - Land and Minerals Management

From: Jeffery D. Jarrett   
Director, Office of Surface Mining

Subject: Recommendation for Approval, Without Special Conditions, of the Mining Plan Modification for Federal Lease UTU-79975 at Andalex Resources, Inc.'s Centennial Mine located in Carbon County, Utah

I recommend approval for longwall development mining, without special conditions, of this mining plan modification. My recommendation is based on:

- (1) Andalex Resources, Inc.'s complete permit application package (PAP),
- (2) compliance with the National Environmental Policy Act of 1969,
- (3) documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders,
- (4) comments and recommendations or concurrence of other Federal agencies, and the public,
- (5) the findings and recommendations of the Bureau of Land Management regarding the resource recovery and protection plan, the Federal lease requirements, and the Mineral Leasing Act, and
- (6) the State Final Findings and Supporting Documentation, Summit Lease Tract – Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019.

The Secretary may approve a Mining Plan for Federal leases under 30 U.S.C. §§ 207(c) and 1273(c). In accordance with 30 CFR Chapter VII, Subchapter D, I find that the proposed mining plan modification will be in compliance with all applicable laws and regulations.

Attachment



# United States Department of the Interior

OFFICE OF SURFACE MINING  
Reclamation and Enforcement  
P.O. Box 46667  
Denver, Colorado 80201-6667

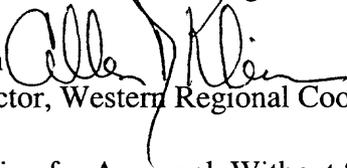
UT-0022

IN REPLY REFER TO:

October 14, 2004

## Memorandum

To: Jeffery D. Jarrett  
Director, Office of Surface Mining

From: Allen D. Klein   
Regional Director, Western Regional Coordinating Center

Subject: Recommendation for Approval, Without Special Conditions, of the Mining Plan Modification for Federal Lease UTU-79975 at Andalex Resources, Inc.'s Centennial Mine located in Carbon County, Utah

### I. Recommendation

I recommend approval, without special conditions, of a mining plan modification for Federal lease UTU-79975 at the Centennial Mine. This is a mining plan modification for an underground coal mine being permitted under the Federal lands program, the approved Utah State program, and the cooperative agreement.

My recommendation to approve the mining plan modification is based on:

- (1) Andalex Resources, Inc.'s complete permit application package (PAP),
- (2) compliance with the National Environmental Policy Act of 1969,
- (3) documentation assuring compliance with applicable requirements of other Federal laws, regulations, and executive orders,
- (4) comments and recommendations or concurrence of other Federal agencies, and the public,
- (5) the findings and recommendations of the Bureau of Land Management regarding the resource recovery and protection plan, the Federal lease requirements, and the Mineral Leasing Act, and
- (6) the Utah Department of Natural Resources, Division of Oil, Gas and Mining (UT-DOGM), State Final Findings and Supporting Documentation, Summit Lease Tract – Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019, and the Utah State program.

If you concur with this recommendation, please sign the attached memorandum to the Assistant Secretary, Land and Minerals Management.

## II. Background

The Centennial underground coal mine is located in Carbon County, Utah, approximately 10 miles north of the town of Price, Utah on both Bureau of Land Management and private lands. The mine has been in operation since 1980 and employs 154 people during full production. The life of the currently approved mining operations within the approved permit area is estimated to be approximately eight (8) years. The mining operations use a combination of room and pillar and longwall mining methods. The average annual production rate is approximately 1.5 million tons per year from the Aberdeen (Castlegate A), Gilson, and Centennial seams.

The original mining plan for Federal leases U-010581, SL-063058, SL-025304, and U-050067 at the Centennial Mine was approved on November 12, 1981. Since that approval, there have been three mining plan modifications for the Centennial Mine. Federal lease UTU-66060 was approved on March 12, 1993, Federal lease U-69600 was approved on July 7, 1993, and Federal lease UTU-66060 was modified and approved on August 11, 1994.

Since the last mining plan modification, 160 acres have been incorporated into the approved mining plan area. These acres did not require Secretarial approval since they met the requirements of 30 CFR 746.18(d)(3)(ii). Specifically, this incidental boundary revision is in Federal lease UT-66060 located in Lot 12, Section 31, the W $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW  $\frac{1}{4}$ , Section 32 Township 12 South, Range 11 East of the SL Meridian Utah, and is included within the approved mining plan area depicted on the mining plan area map of this mining plan decision document and Attachment 1 of the mining plan approval document.

The State's current permit area covers 5,415 acres.

Approximately 35 surface acres are disturbed within the State's permit area.

A total of 4,843 acres of Federal coal exist within the State's current permit area.

A total of 5.4 million tons of Federal coal remain within the current permit area.

A total of 2,640 acres of Federal surface land exist within the State's current permit area.

The post mining land use within the currently approved mining plan area is grazing and wildlife habitat.

### III. The Proposed Action

This mining plan action consists of a mining plan modification for Federal lease UTU-79975. Specifically, the mining plan action proposed by Andalex Resources, Inc. consists of:

longwall development operations in the Aberdeen (Castlegate A) seam, on approximately 72.32 acres in two small parcels in the new Federal Summit Creek lease UTU-79975 for the first time, within the area covered by Utah State permit C/007/019, in;

Township 12 South, Range 11 East SL Meridian Utah

Beginning at the NW Corner of Section 31 (T12S, R11E)  
thence S 00 ° 24'W 2675 .8' ;  
thence S 61 ° 52'E 743 .0' to point of beginning ;  
thence due East 3867 .5' to the east section line of said Section 31 ;  
thence due South 735 .0' along the East section line of said Section 31 ;  
thence N 61 ° 62'W 1553 .2' ;  
thence due South 1334 .3' to the Southeast corner of Lot 11 ;  
thence N 61 ° 52'W 2832 .3' to point of beginning .  
Beginning at the NW corner of Section 32 (T12S, R11E)  
thence due South 592 .0' along the West section line of said  
Section 32 to point of beginning ;  
thence due East 1320' ;  
thence due South 747 .6' ;  
thence due West 1320' ;  
thence due North 747 .6' along the West section line of said  
Section 32 to point of beginning .

The life of the mining operations is expected to continue for ten (10) years under Utah Permit C/007/019 and this proposed mining plan modification.

The average annual production rate and the maximum production rate would not change.

The approved State permit area would increase by 92 acres from its present 5,415 acres to a new total of 5,507 acres.

Surface disturbance within the approved State permit area will not increase from its present 35 acres.

This mining plan modification will add 72.32 acres for development and mining of Federal coal to the approved mining plan area shown on the map included with this decision document.

Approval of this mining plan modification will authorize mining of an additional 0.05 million tons of recoverable Federal coal.

Approximately 2640 acres of Federal surface lands will be included in the mining plan area as a result of this action.

The post mining land use within the permit and mining plan area will not change.

The UT-DOGM has placed two (2) Special Conditions to this permitting action. An explanation of each stipulation and the requirements for their resolution can be found in the State Decision Document made a part of this Mining Plan Decision Document.

Andalex Resources, Inc.'s proposal does not require any additional special conditions to comply with Federal laws.

#### IV. Review Process

The UT-DOGM reviewed the PAP under the Utah State program, the Federal lands program (30 CFR Chapter VII, Subchapter D), and the Utah cooperative agreement (30 CFR § 944.30). Pursuant to the Utah State program and the cooperative agreement, UT-DOGM approved the permit revision on September 3, 2004.

The Office of Surface Mining Reclamation and Enforcement (OSM) has consulted with other Federal agencies for compliance with the requirements of applicable Federal laws. Their comments and/or concurrences are included in this decision document.

The Bureau of Land Management (BLM) reviewed the Resource Recovery and Protection Plan for compliance with the Mineral Leasing Act of 1920, as amended, and 43 CFR Part 3480. The BLM recommended approval of the mining plan modification in a memorandum dated August 12, 2004.

In accordance with the September 24, 1996, Biological Opinion and Conference Report from the U.S. Fish and Wildlife Service (USFWS) to OSM, the UT-DOGM has sought comments from the U.S. Fish and Wildlife Service (USFWS) on threatened and endangered species and has incorporated the necessary reporting requirements into the UT-DOGM State Final Findings and Supporting Documentation, Summit Lease Tract – Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019. The USFWS and the UT-DOGM did not develop or recommend any species-specific protective measures, as indicated in the USFWS letter dated September 1, 2004.

The State Historic Preservation Officer concurred with the proposed mining plan in letters dated June 15, 1988 and July 7, 1994.

The proposed area of mining plan approval is not unsuitable for mining according to section 522(b) of SMCRA.

The mining plan modification area is not on any Federal lands within the boundaries of any national forest.

I have determined that approval of this mining plan modification will not have a significant impact on the quality of the human environment. The environmental analysis prepared by the U. S. Bureau of Land Management entitled *Summit Creek LBA UTU-79975*, and other environmental documents noted in the Finding of No Significant Impact (FONSI), describe the impacts that may result from approval of this mining plan modification and its alternatives. The FONSI and supporting environmental analyses are included in this decision document.

OSM's review of the proposed action did not identify any issues that required resolution via the addition of special conditions to the mining plan approval.

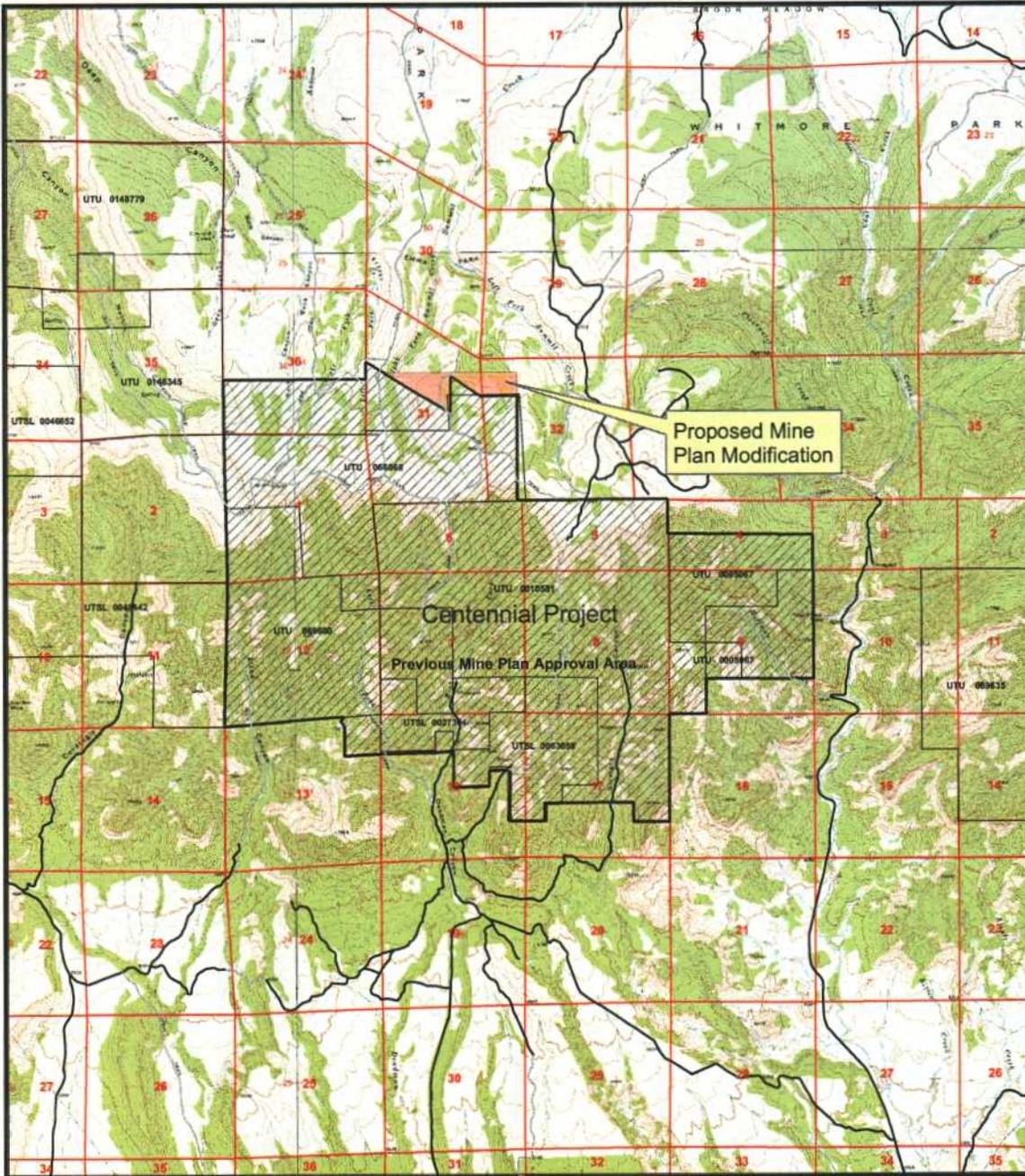
The UT-DOGM determined that a bond for \$1,080,839.00 is adequate for the Utah Permit C/007/019 associated with this mining plan modification. The bond is payable to the State and the United States.

A chronology of events related to the processing of the PAP and this mining plan decision is included with the decision document. The information in the PAP, and other information identified in the decision document, has been reviewed by UT-DOGM staff in coordination with the OSM Federal Lands State Coordinator.

OSM's administrative record of this mining plan modification consists of the following:

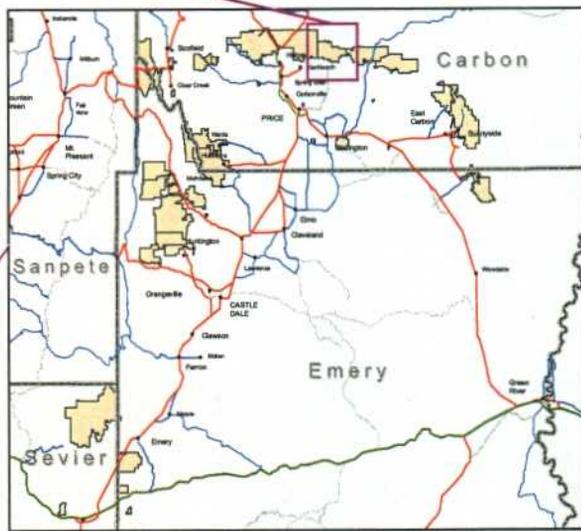
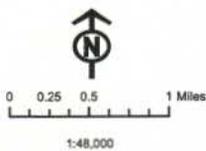
- the PAP submitted by Andalex Resources, Inc., and updated through July 2, 2004,
- UT-DOGM's State Final Findings and Supporting Documentation, Summit Lease Tract – Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019, and the Utah State program,
- the Environmental Assessment entitled *Summit Creek LBA UTU-79975*,
- the FONSI of the proposed action and alternatives prepared by OSM,
- other documents prepared by UT-DOGM, and
- correspondence developed during the review of the PAP.

Attachments



**Centennial Project**  
 ACT0070019  
 Carbon County, Utah  
 Township 12 South Range 11 East  
 September 2004

File: N:\gis\coal\coalareamaps\C0070034Fed.pdf



Locator Map

## CHRONOLOGY

Centennial Mine  
Federal Lease UTU-79975  
Mining Plan Decision Document

DATE	EVENT
May 7, 2004	Andalex Resources, Inc. submitted the permit application package (PAP) under the approved Utah State Program to the Utah Division of Oil, Gas, and Minerals (UT-DOGGM) for an Incidental Boundary Change at the Centennial Mine.
May 10, 2004	The Office of Surface Mining Reclamation and Enforcement (OSM) received the PAP.
July 7, 1994	The State Historic Preservation Office provided its comments on the mining plan.
August 12, 2004	The Bureau of Land Management provided its findings and recommendations on the approval of the mining plan, with respect to the Resource Recovery and Protection Plan.
September 1, 2004	The U.S. Fish and Wildlife Service provided its final consultation comments on the mining plan.
September 3, 2004	UT-DOGGM approved the PAP.
October 14, 2004	OSM's Western Regional Coordinating Center recommended to the Director, OSM, that the mining plan action be approved.

U.S. DEPARTMENT OF THE INTERIOR  
OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT  
FINDING OF NO SIGNIFICANT IMPACT  
FOR  
Centennial Mine  
Federal Coal Lease UTU-79975  
Mining Plan Decision Document

1. Introduction

Andalex Resources, Inc. submitted a permit application package (PAP) for a permit revision for the Centennial Mine to the Utah Department of Natural Resources, Division of Oil, Gas, and Mining (UT-DOGDM). The PAP proposed extending underground mining operations into approximately 72.32 acres of Federal lease UTU-79975. Under the Mineral Leasing Act of 1920, the Assistant Secretary, Land and Minerals Management, must approve, approve with conditions, or disapprove the new mining plan for Federal lease UTU-79975. Pursuant to 30 CFR Part 746, the Office of Surface Mining (OSM) is recommending approval of the mining plan action without special conditions.

2. Statement of Environmental Significance of the Proposed Action

The undersigned person has determined that the above-named proposed action would not have a significant impact on the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4332(2)(C), and therefore, an Environmental Impact Statement is not required.

3. Reasons

This finding of no significant impact is based on the attached U. S. Bureau of Land Management prepared Environmental Assessment entitled *Summit Creek LBA UTU-79975*, which has been independently evaluated by OSM and determined to assess the environmental impacts of the proposed action adequately and accurately and to provide sufficient evidence and analysis for this finding of no significant impact. OSM takes full responsibility for the accuracy, scope, and content of the attached environmental assessment.

Ranvir Singh  
Chief, Northwest Branch

Oct. 14, 2004  
Date

**Summit Creek LBA**

**UTU-79975**

**Environmental Assessment**

**Carbon County, Utah**

BLM EA No. UT-070-2003-48



Prepared by:

**Bureau of Land Management**  
State Office  
PO Box 45155  
Salt Lake City, Utah 84145

Price Field Office  
125 South 600 West  
Price, Utah 84501



Cooperating Agency:

**Office of Surface Mining Reclamation and Enforcement**  
Western Regional Coordinating Center  
P.O. Box 46667  
Denver, CO 80201-4667

April 2004

## Table of Contents

Table of Contents.....	i
List of Acronyms and Abbreviations.....	ii
Chapter 1 - Introduction/ Purpose of and Need for Action .....	1
Introduction .....	1
Purpose of and Need for Action.....	2
Conformance with Land Use Plans.....	3
Decisions To Be Made.....	3
Scoping Process .....	3
Chapter 2 - Proposed Action and Alternatives.....	5
Introduction & Background.....	5
Description of Alternatives .....	6
Chapter 3 - Affected Environment.....	8
BLM Critical Elements.....	8
Description of Resources .....	10
Topography and Geology .....	10
Water Resources .....	11
Paleontological Resources .....	12
Special Status Species .....	12
Range and Livestock .....	13
Land Uses.....	14
Cultural and Historical Resources.....	15
Socioeconomics.....	15
Chapter 4 - Environmental Consequences.....	17
Alternative A – No Action .....	17
Alternative B – Proposed Action.....	18
Reasonable Foreseeable Development & Cumulative Impacts.....	20
Consultation and Coordination.....	21
References.....	22
List of Preparers.....	24
Bureau of Land Management.....	24
Office of Surface Mining Reclamation and Enforcement .....	24
JBR Environmental Consultants, Inc.....	24

### List of Figures

- Figure 1 – General Project Area
- Figure 2 – Summit Creek Tract and Surface Ownership Map
- Figure 3 – Aberdeen Mine Map

### List of Appendices

- Appendix A – Public Scoping
- Appendix B – Lease-Committed Measures

## List of Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
BLM	Bureau of Land Management
CE-2	Critical Environmental Zone 2
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FCLAA	Federal Coal Leasing Amendments Act of 1976
FLPMA	Federal Lands Policy and Management Act
GOPB	Governor's Office of Planning & Budget
LBA	Lease By Application
MFP	Management Framework Plan
MLA	Mineral Leasing Act of 1920
MRP	Mining and Reclamation Plan
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
OSM	Office of Surface Mining Reclamation and Enforcement
RFD	Reasonable Foreseeable Development
RMP	Resource Management Plan
SMCRA	Surface Mining Control & Reclamation Act of 1977
TES	Threatened, Endangered, & Sensitive
UDOGM	Utah Division of Oil, Gas, & Mining
UDWR	Utah Division of Wildlife Resources
USDI	United States Department of the Interior
USGS	United States Geological Survey
WSA	Wilderness Study Area

## **Chapter 1 - Introduction/ Purpose of and Need for Action**

### **Introduction**

This Environmental Assessment (EA) is being prepared by the Utah State Office and Price Field Office of the Bureau of Land Management (BLM), with the cooperation of the Office of Surface Mining Reclamation and Enforcement (OSM) in response to an application submitted by ANDALEX Resources Inc. (AMCA Coal Leasing, Inc.) for leasing of the Summit Creek Tract (see **Figures 1 and 2**).

When a project involves Federal action, the National Environmental Policy Act (NEPA) requires that an environmental analysis be conducted, and that public participation be solicited. This EA discloses the anticipated environmental consequences of the proposal and provides the basis for the BLM to decide whether or not to offer the Summit Creek Tract for competitive leasing. Alternatives to the Proposed Action include No Action and fuller extraction of coal within the lease tract.

The Summit Creek Tract is located approximately 10 miles north-northeast of Price, Utah, in the westernmost portion of the Soldier Canyon Area of the Book Cliffs Coal Field. The Summit Creek Tract is contiguous to ANDALEX's existing Centennial Project, Aberdeen Mine (Federal Lease UTU-66060). The surface is privately owned, and the Bureau of Land Management (BLM) administers the coal/mineral estate. These lands were included in the 4,198-acre Coal Creek Tract (see **Figure 2**), delineated in 1981 and analyzed as part of the Round Two leasing process (BLM 1983).

The coal lease application will be processed and evaluated under the following authorities: Mineral Leasing Act of 1920, as amended; Federal Coal Leasing Amendments Act of 1976 (FCLAA); Federal Land Policy and Management Act of 1976 (FLPMA); Surface Mining Control and Reclamation Act of 1977 (SMCRA); National Environmental Policy Act of 1969 (NEPA); and Federal Regulations 43 CFR 3425.

The **Bureau of Land Management, Utah State Office**, in response to the proposed coal lease application, is responsible for the following actions:

- Preliminary evaluation of the application to determine if it meets the criteria for a lease;
- Notification of the Governor of the State of Utah of the application;
- Preparation of the environmental documentation needed to comply with NEPA, determination of fair market value, and the tract delineation review report; and
- If appropriate, preparation for and holding of the lease sale and issuance of a lease for the mining of coal resources from the lands involved.

The **Office of Surface Mining Reclamation and Enforcement (OSM)** has jurisdiction over any mining plan application that may result from BLM's leasing decision. OSM is a cooperating agency in the preparation of this EA (40 CFR §1501.6). OSM has the responsibility, through SMCRA, to administer programs that regulate surface coal

mining operations and surface effects of underground coal mining operations. In 1981, the Secretary of the Interior approved the Utah Division of Oil, Gas, & Mining (UDOGM) program to regulate surface coal mining operations and surface effects of underground coal mining on non-Federal lands within the state of Utah, pursuant to Section 503 of SMCRA. In 1987, UDOGM and the Secretary of the Interior entered into a cooperative agreement authorizing UDOGM to regulate surface coal mining operations and surface effects of underground coal mining on Federal lands within the state, pursuant to Section 523(c) of SMCRA.

Federal coal leaseholders in Utah must submit permit application packages to OSM and UDOGM for proposed mining and reclamation activities on Federal lands in the state. UDOGM reviews the packages to ensure that the permit application complies with the permitting requirements and that the coal mining operation will meet the performance standards of the approved permanent program. If it does comply, UDOGM issues the applicant a permit to conduct coal mining operations. OSM, BLM, and other Federal agencies review the permit application package to ensure that it complies with the terms of the coal lease, the Mineral Leasing Act of 1920 (MLA), the National Environmental Policy Act of 1969, and other Federal laws and regulations. OSM recommends approval, approval with conditions, or disapproval of the MLA mining plan to the Assistant Secretary, Land and Minerals Management. Before the MLA mining plan can be approved, BLM and the surface-managing agency (if other than BLM) must concur with this recommendation.

The following environmental studies have preceded this EA, which provide potentially useful information that will be reviewed in the preparation of the EA. They are:

- The Uinta-Southwestern Utah Coal Region Round Two Final Environmental Impact Statement, 1983
- The ANDALEX Resources, Centennial Project Environmental Assessment, 1990 (EA#UT-066-90-12)

### **Purpose of and Need for Action**

The purpose of the Proposed Action is to make available for mining the coal underlying private lands in the area defined as the Summit Creek Tract. The Proposed Action is needed to continue economically viable development of Federal coal reserves as part of the Aberdeen Mine operation.

The need for Federal leasing action to develop coal resources is to further the economic viability of Price, Utah and Carbon County, and to help meet energy demands in the United States. Utah's coal mines are among the most productive underground mines in the United States.

Development of the coal resource associated with this Lease by Application (LBA) from existing adjacent workings would assure the maximum economic recovery of coal in this tract.

## Conformance with Land Use Plans

The Price River Resource Area Management Framework Plan (MFP) (BLM, 1984) provides guidance for management decisions regarding coal leasing. The minerals multiple use objective states that the agency must "allow and encourage development of those leasable minerals known to occur within the planning area in accordance with current laws and regulations so as to aid in filling the local and national energy requirements." It requires consideration for "leasing those coal lands within the planning area that have been found acceptable for further consideration for leasing through previous planning amendments." This leasing action would be in accordance with the Price River Resource Area MFP.

## Decisions To Be Made

The BLM Utah State Office will decide whether or not it is in the public interest to hold a competitive coal lease sale for the Summit Creek Tract.

## Scoping Process

Scoping is a process of seeking comment on proposed Federal actions that may affect use or access to public lands, resources, or programs. Scoping is conducted within agencies as well as to gain public input. Internal scoping by the BLM Price Field Office was conducted on September 10, 2003, and included most renewable resource specialists. Normal issues of impacts to water, wildlife, and cultural resources were noted if surface-disturbing activities would be allowed. However, with the Proposed Action of only deep underground mining with little or no mining-induced subsidence, resource specialists indicated no issues or concerns, provided the lease would contain standard lease stipulations (see Appendix B).

The BLM distributed a news release in late September 2003 to the *Emery County Progress*, *Price Sun Advocate*, KOAL Radio, and KRPX radio, requesting public input as to any issues concerning the ANDALEX coal lease application. A copy of this news release is included in Appendix A. The news release was also mailed to the following landowners and interested parties:

- Dave R. and Mildred Cave, et al.
- Mathis Land Company
- F. and D. Shimmin
- Price City
- School and Institutional Trust Lands Administration
- Utah Division of Oil, Gas and Mining

---

To date, no letters have been received by the Price BLM Field Office in response to the scoping announcement. Two phone calls were received by the office in regards to the scoping announcement, one from a landowner on the lease tract, and one from a landowner adjacent to the lease tract. Concerns were expressed about mining subsidence and effects to water sources, and the effects of mining on potential oil & gas rights held by the landowners.

## Chapter 2 - Proposed Action and Alternatives

### Introduction & Background

Chapter 2 describes the activities of the No Action Alternative and the leasing alternative.

In November 2001, ANDALEX submitted an application for a coal lease on approximately 463 acres of unleased Federal coal lands within T. 12 S., R. 11 E., SLM (Summit Creek Tract) (Figure 2). The June 2003 Summit Creek Tract Delineation Report for LBA UTU-79975 recommended an approximately 703-acre tract, allowing for expansion of the existing Aberdeen Mine longwall operation to recover all Federal coal resources that could likely be mined in a logical and timely manner from this tract. It is estimated that the 703-acre tract contains 11.6 million tons of in-place coal. There is no part of the property designated unsuitable for mining according to Title 30.

The proposed Summit Creek Tract has been delineated as follows (BLM 2003):

Township 12 South, Range 11 East, Salt Lake Base Meridian  
Section 29, SW $\frac{1}{4}$  SW $\frac{1}{4}$ , SW $\frac{1}{4}$  SE $\frac{1}{4}$ ;  
Section 30, lots 4, 12, and 14-16;  
Section 31, lots 1, 2, and 7-11;  
Section 32, W $\frac{1}{2}$  NE $\frac{1}{4}$ , E $\frac{1}{2}$  NW $\frac{1}{4}$ , NW $\frac{1}{4}$  NW $\frac{1}{4}$ , and NE $\frac{1}{4}$  SW $\frac{1}{4}$

The proposed coal tract lies north of, and adjacent to, ANDALEX's lease holdings where the current Aberdeen Mine is extracting coal by underground longwall mining methods. ANDALEX has been operating this mining complex in Deadman's Canyon (located about 9 miles northeast of Price, Utah) since 1980. Current coal production of about 1 million tons per year from the Aberdeen Mine is transported by conveyor out of the mine to the tipple and loading facilities in Deadman Canyon and trucked to various railroad loading facilities and customers. Existing reserves of the Aberdeen coal seam are limited to about 2 to 3 years at existing rates. ANDALEX wishes to obtain the Summit Creek Coal Tract that would extend mining operations for another 8 to 9 years. Existing surface facilities would be used with production remaining at the current rate.

As required for all leasing, BLM proposes to hold a competitive sale of the proposed Summit Creek Tract. However, the only logical access to these coal reserves is from the existing Aberdeen Mine workings.

Two alternatives have been identified for analysis in this EA and a third alternative has not been brought forward. The No Action Alternative is mandated by 40 CFR § 1502.14(d) and provides the conceptual baseline for impacts. The Proposed Action would be a continuation of current underground mining operations into the new area.

Lease-Committed Measures would be adopted under the leasing alternative (see Appendix B).

## Description of Alternatives

### *Alternative A – No Action*

Under Alternative A, the Summit Creek Tract would not be offered for leasing at this time. This tract would remain unmined but current operations at the Aberdeen Mine would continue for 2-3 years until existing coal reserves are exhausted. ANDALEX would not extend their Aberdeen mining operations an additional 8 to 9 years and would not extract the 8.62 million tons of coal located in the Summit Creek Tract.

### *Alternative B - Proposed Action*

Under the Proposed Action, the Summit Creek Coal Lease Tract would be offered for competitive bids. As ANDALEX is the only logical lessee, the Proposed Action would analyze ANDALEX's proposed development scenario. ANDALEX would access recoverable coal reserves of the Summit Creek Tract from their Aberdeen Mine utilizing methods approved in the current Mining and Reclamation Plan (MRP). Main entry and development mining would take place for approximately the first year; then longwall extraction would commence. The Aberdeen Mine map, including mined panels and proposed panels, is illustrated in **Figure 3**.

The first year of development mining is expected to produce approximately 0.5 million tons of coal. Following that the first year, mining within the tract would be operated at a level of approximately 1.0 million tons per year for 8 years. Final extraction would result in total recovery of 8.62 million tons of coal, approximately 75 percent of the in-place reserves.

All necessary support for the mining of both the existing lease and the Summit Creek Tract would be from the existing surface facilities located on the current lease block in Deadman Canyon. Though previous mining has caused little or no subsidence on ANDALEX's property, the Proposed Action may involve possible mining induced subsidence. No new surface facilities would be required; no surface disturbing activities are proposed. No additional exploration would be required. Average cover over the coal beds is approximately 3,000 feet.

### *Alternatives Proposed But Not Brought Forward – Fuller Extraction of Coal Resource*

Under this Alternative, the company would be required to reduce the size of the barrier pillars between longwall panels. The extraction of coal from each panel would be greater than for the Proposed Action. Other aspects of development and production would be the same as under the Proposed Action. This alternative allows for increased extraction of the coal resource by increasing the panel width and decreasing the width of pillars left in place, should continued monitoring data show that increased coal recovery is safe and feasible. No new surface facilities would be required. No surface disturbing activities are proposed.

This alternative was evaluated but dropped in that the setting of a mining scenario cannot be chosen as an alternative during the leasing stage. This action is a mine permit decision, after a lease is in place. This alternative was to allow evaluation of impacts of subsidence, as fuller extraction of the coal seam would increase the possibility and amount of mining induced subsidence. This evaluation will be done in Alternative B.

## Chapter 3 - Affected Environment

### BLM Critical Elements

In addition to issues and concerns brought out in the public scoping process, the BLM requires that potential impacts be addressed for the following critical elements of the environment:

- Air Quality
- Areas of Critical Environmental Concern (ACECs)
- Cultural Resources
- Environmental Justice
- Floodplains
- Invasive, Non-Native Species
- Migratory birds
- Native American Religious Concerns
- Prime or Unique Farmlands
- Threatened, Endangered, or Sensitive Species (TES)
- Wastes - Hazardous or Solid
- Water Quality (surface and ground)
- Wetlands and Riparian zones
- Wild and Scenic Rivers
- Wilderness (including BLM WSAs)

### Other Elements Considered:

- Land Uses
- Native American Trust Resources
- Noise
- Oil & Gas Rights
- Paleontological Resources
- Range and Livestock
- Recreation
- Socioeconomics
- Subsidence
- Topography and Geology
- Visual
- Wildlife and Wildlife Habitats

### Elements carried forward for analysis:

- Topography and Geology
- Subsidence
- Water Quality (surface and ground)
- Paleontological Resources
- Threatened, Endangered, or Sensitive Species
- Range and Livestock
- Land Uses
- Cultural Resources
- Socioeconomics

### ***Issues Eliminated from Further Study***

The following issues and critical elements would not be affected by the proposed project and will not be carried forward for analysis:

*ACECs:* There are no Areas of Critical Environmental Concern in or near the project area. The closest ACEC is located at least 20 miles to the south in the San Rafael Resource Area.

*Air Quality & Noise:* This project would not affect the ambient air quality or background noise in the vicinity of the project. No surface disturbance would take place. No increase in mine-related traffic would take place in Deadman Canyon as a result of this leasing action.

*Environmental Justice:* No minority or low-income communities would be disproportionately affected by the project.

*Farmlands, Prime/Unique:* There are no prime/unique farmlands present.

*Floodplains:* No floodplains have been identified in or near the project area. There would be no impacts to floodplains.

*Invasive, Non-Native Species:* There are no known invasive/non-native species in the project area.

*Migratory Birds:* No migratory birds would be affected by this project, as there would be no surface development; no nesting, foraging, or roosting habitats would be affected.

*Native American Trust Resources:* There are no interests or properties held in trust for Tribes by the United States government within the Project Area

*Oil & Gas Rights:* The coal tract is small; therefore, gas rights could be developed as part of a larger adjacent gas project through use of a directional drill. There is no conflict with Oil & Gas rights.

*Recreation:* The surface land is privately owned and public access is restricted; no surface facilities would be constructed, therefore public recreation use would not be affected by the leasing of the Summit Creek Tract.

*Visual:* There would be no surface impacts, thus no visual impacts.

*Wastes – Hazardous or Solid:* Any waste materials from underground development of the Summit Creek Tract would be handled appropriately, according to the existing MRP.

*Wetlands and Riparian zones:* No wetlands or riparian zones have been identified in the project area.

*Wild and Scenic Rivers:* There are no designated wild and scenic rivers in or near the project area.

*Wilderness:* There are no designated wilderness areas or WSAs within or adjacent to the project area.

*Wildlife and Wildlife Habitats:* Wildlife habitats present in the area include mule deer and elk summer range as well as habitat for small animals and birds. Vegetation is mainly big sagebrush-grass with large aspen patches. None of these habitats or wildlife would be impacted by the proposed leasing or development of the Summit Creek Tract; there would be no surface development and subsidence impacts would be minimal.

## **Description of Resources**

### **Topography and Geology**

The Summit Creek Tract is located in the Book Cliffs coal field, which lies slightly east of the central part of Utah in Carbon and Emery counties. The Book Cliffs are a major physiographic feature in the region and range from 5,500 feet at the base to over 8,500 feet in elevation. The area exhibits extreme topographic relief and is mountainous with steep cliffs and incised drainages. The Summit Creek Tract is located on the top of the plateau in an area known as Emma Park, where topography is rolling with some knolls and steep slopes, but no cliff faces.

Overall, gradient across the Tract is generally toward the north. Elevations range from about 8,000 feet on the north boundary to about 8,500 feet at the south boundary. Topographic variation is provided by several small headwater drainages that flow northward across the Tract.

The surface geology exposed over much of the surface of the Summit Creek Tract is Flagstaff Limestone, which interfingers with the North Horn Formation in the Emma Park area. The Paleocene-aged Flagstaff Limestone is a member of the Wasatch Formation, and is comprised of interbedded limestones, claystones, and sandstones.

Underlying the Flagstaff Limestone are, in descending order, the North Horn Formation, the Price River Formation, the Castlegate Sandstone, and the Blackhawk Formation. The latter three comprise the Upper Cretaceous-aged Mesaverde Group. The North Horn is made up primarily of shales interbedded with sandstone, limestone and conglomerate. The Price River Formation consists of thick sandstone layers between a shale layer. The Castlegate sandstone is predominantly composed of a massive, fluvial sandstone layer with relatively high permeability. The Blackhawk Formation contains

interbedded materials of various makeup and porosity; it is the coal-bearing formation within the proposed Summit Creek Tract.

Although there are several major coal beds in the Blackhawk Formation in the region, only the Aberdeen (also known as the Castlegate A) bed is found in commercial thickness in the immediate area. This is the bed that would be mined within the proposed Summit Creek Tract. In the Tract area, overburden thickness ranges from 2,500 to 3,000 feet above this minable seam. The dip is northeastward at approximately six degrees, which is essentially equivalent to the direction and gradient of the surface topography. No faults are known to exist in the immediate area.

Conventional natural gas and coal bed methane gas exploration occurs in areas of Emma Park and Indian Canyon, approximately four miles to the northwest, focusing on coal beds of the Blackhawk Formation and sandstone members of the Mancos Shale underlying the Blackhawk Formation. To date there has been no interest in expanding these operations into the Blackhawk Formation or the Summit Creek area.

## **Water Resources**

The Summit Creek Tract is located in the headwaters of the Summit Creek watershed, which drains generally north, then west, to Willow Creek before entering the Price River. The Price River is tributary to the Green River, a major Colorado Plateau watercourse. Summit Creek heads at the top of the Book Cliffs, collecting flow in East Fork Summit Creek and West Fork Summit Creek, both of which drain the Summit Creek Tract. The upper reaches of Left Fork Antone Creek, also a tributary to Summit Creek, drain the westernmost portion of the Tract.

According to the United States Geological Survey (USGS) 7.5-minute quadrangle of the area, Left Fork Summit Creek is intermittent or ephemeral in the southern portion of the Summit Creek Tract and becomes perennial as it progresses northward through the area. The entire reach of Right Fork Summit Creek as it traverses the tract is mapped as perennial, while Left Fork Antone Creek is mapped as intermittent or ephemeral. Stockwatering rights are held on various stream segments in and near the Summit Creek Tract (Utah Division of Water Rights, 2003).

Several stockponds, apparently intercepting occasional spring flow as well as storm water or snowmelt runoff are located along these three watercourses. The Natural Resources Conservation Service (NRCS) notes several of these as being intermittent in nature (Soil Conservation Service, 1988). Landowners have existing water rights for stockwatering at various stockponds in and near the Summit Creek Tract (Utah Division of Water Rights, 2003).

Groundwater throughout the region and within the geologic formations in which the Summit Creek Tract is located is typically found only in isolated perched aquifers coinciding with lenticular sandstone beds interspersed throughout the less permeable strata. Occasionally, these water-bearing beds discharge to the surface via small springs where dip, topography, and storage volume allow. In the Book Cliffs, these springs are commonly found where the Flagstaff Limestone is exposed at the surface

and contacts the North Horn Formation; often they exhibit great seasonal variability (Waddell, et al, 1986), reflecting a small recharge area and minimal aquifer extent. Within the boundaries of the Summit Creek Tract, water rights for stockwatering uses are held on several small springs. These springs were not identified in previous ANDALEX surveys (Mayo and Associates, 2002; Vaughn Hansen Associates, 1981) and at least some of these may no longer produce flow.

South of the project area, ANDALEX operates the Aberdeen Mine, and has an intermittent need to pump intercepted groundwater from the mine into Deadman Canyon. Deadman Canyon is an ephemeral tributary which flows south toward the Price River.

### **Paleontological Resources**

The Summit Creek Tract includes the Blackhawk Formation of the Upper Cretaceous Mesaverde Group, the Castlegate Sandstone Formation, the Price River Formation, and Mancos Shale. Important fossils are known to occur in the Blackhawk Formation in central Utah. Some invertebrate fossils are common in the Mancos Shale, Castlegate Sandstone, and Price River Formation. Vertebrate fossils of scientific and educational value, on public lands, are protected under the "Baucus Bill" (Paleontological Resources website).

No paleontological inventories have been conducted in the proposed Summit Creek Tract. The subject property is located in a "potential fossil bearing area of slight value" (USDI, 1979). Although some invertebrate fossils could be found in the Mancos Shale, Castlegate Sandstone, and Price River Formation, the chance of finding valuable fossils is small (BLM, 1983).

### **Special Status Species**

Section 7 of the Endangered Species Act (ESA) of 1973 (the Act), as amended, stipulates that Federal actions shall not jeopardize the continued existence of any threatened or endangered species or adversely modify their critical habitat. The status of threatened and endangered species has been determined by the U.S. Fish & Wildlife Service under the provisions of the ESA. Under the ESA, endangered species are defined as being in danger of extinction throughout their entire range, or a significant portion of it. Threatened species are likely to become endangered in the foreseeable future.

In addition, the Utah Division of Wildlife Resources (UDWR) maintains lists of sensitive species by County. Sensitive species are those species for which population viability is a concern, as evidenced by: (1) significant current or predicted downward trend in population numbers or density, or (2) a significant current or predicted downward trend in habitat capability that would reduce the species' existing distribution.

Collectively, threatened, endangered, and sensitive species are referred to herein as Special Status Species. Any surface disturbing activity that has the potential to affect

individuals of these species, or to alter their habitats, must be evaluated in terms of the ESA and BLM policy. In addition, all raptor species are protected under authority of the Migratory Bird Treaty Act (16 U.S.C. 703-712). A brief account of the Federally listed and sensitive species that may occur in or near the project area is included below.

### ***Federally Listed Species***

Of those Federally listed plant and wildlife species in Carbon County, only the bald eagle (*Haliaeetus leucocephalus*) and the Mexican spotted owl (*Strix occidentalis lucida*) have the potential to occur in or near the project area. The bald eagle may occasionally migrate through the area; the Mexican spotted owl would be unlikely to occur in this area. The list also includes four Federally endangered fish species; bonytail chub (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), Humpback chub (*G. cypha*), and razorback sucker (*Xyrauchen texanus*), however, no habitat for these fish occurs within the project area.

### ***Sensitive Species***

Sensitive species recorded on the UDWR database within a one-mile radius of the lease tract include the following: ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), Utah milk snake (*Lampropeltis triangulum taylori*), bluehead sucker (*Catostomus discobolus*), greater sage grouse (*Centrocercus urophasianus*), northern flying squirrel (*Glaucomys sabrinus*), peregrine falcon (*Falco peregrinus*), western red bat (*Lasiurus blossevillii*), and western toad (*Bufo boreas*).

### **Range and Livestock**

Livestock grazing and rangeland conditions are of great importance on both public and private lands in the Price River Resource Area. The comparatively mild and open winters make the area excellent winter range. However, expansive cliff formations and steepness of canyon walls has limited the grazing in the area to the canyon bottoms and area above the canyons. All livestock grazing on public land in the area is managed by the BLM, Price Field Office. One of several main livestock management objectives is to restore and improve rangeland conditions and productivity while providing for its use and development (BLM, 1991).

The Summit Creek Tract and private lands to the north and south are used in the spring and fall for cattle grazing. Cattle are trailed seasonally from the valley areas north through the canyons to the BLM allotments and private grazing lands on the mesa tops. Deadman Canyon has been historically used by ranchers for driving cattle (BLM, 1983).

## Land Uses

The proposed project occurs on privately owned lands with mineral rights administered by the Bureau of Land Management. The mineral rights encompassed within the project area are directed by the BLM's Price River Management Framework Plan (1984). Land use activities in and adjacent to the Proposed Action area include coal mining, livestock grazing, and dispersed recreation activities.

Land management decisions on private lands in Carbon County are guided by the county land use plans, and zoning ordinances and regulations. Lands in the immediate area are zoned Mining and Grazing. The Development Code (Carbon County, 2003) states, "The M&G Mining and Grazing zone generally covers the rangeland areas of Carbon County... Because of limitations imposed by climate, topography, soil capability, water supply and the presence of economically significant mineral deposits, this area has historically been utilized as a place for the grazing of livestock on the open range and as the location of numerous mining and mineral exploration sites. The particular characteristics and conditions present in this area make the land more appropriately suited for a continuation of these uses to promote the economic well-being of the people within the County, and to broaden the tax base."

The County specifically addresses coal development and expects coal mining proponents to assess project impacts and then identify plans to mitigate any impacts (BLM, 1983). County ordinances in relation to mining address watershed protection, mitigation of mine interception of water, subsidence, erosion, sediment, and the enforcement of regulations. There are several county ordinances specifically related to coal mining in the Book Cliffs (Carbon County, 1981). Those applicable are presented below:

According to the 1983 Round II Leasing EIS (BLM, 1983), the Book Cliffs tracts (which encompass the proposed lease area) are zoned as a Critical Environmental Zone 2 (CE-2). Coal mining development is classified as "permitted conditional uses" in this zone, and is permitted upon compliance with the requirements as set forth in the applicable county ordinance code and after approval has been given by the designated governmental agency.

As stated above, the surface land in the proposed project area is privately owned. The fairly rugged topography and sparse rainfall limit the current uses of the land. Two cabins are present, as are numerous two-track and four-wheel drive roads. The area is currently utilized for grazing, wildlife habitat, and outdoor recreation. Areas adjacent to the proposed project area are used for coal mining and associated activities. Recreational activities include deer hunting and enjoyment of open space; snow cover is generally too light and slopes too steep for winter recreation such as snowmobiling, cross-country skiing, or snowshoeing.

## Cultural and Historical Resources

A sample oriented cultural resource inventory (Reed and Chandler, 1984) was conducted in 1982-83 as discussed in the Uinta-Southwestern Utah Coal Region, Round Two, Final EIS (BLM, 1983). The inventory consisted of a 10 percent sampling of five proposed coal tracts, one of which was the Soldier Tract. The current project area was included in the Soldier Tract (encompassed Coal Creek, Soldier Creek, Whitmore Park, Dugout-Pace, and Alkali Creek tracts as delineated in the Uinta-Southwestern Utah Coal Region Final EIS); private lands are included in the study area when mineral rights are publicly owned. The sample areas were each 160 acres in size. Two sample areas were located within the proposed Summit Creek Tract (#2 and #19). No cultural resource sites were recorded within these two sample areas. Within the entire 1983 Soldier Tract inventory area, only two cultural resource sites were recorded.

The proposed Summit Creek Tract encompasses about 703 acres of land of which 80 acres were inventoried during the 1982-83 effort. No cultural resource sites were found within the 80 acres. Due to the nature of the sampling inventory, there is the possibility of unrecorded cultural resources being present within the Summit Creek Tract but the probability is low.

Cultural resource sites in the adjacent and nearby coal leases include historic coal mines, coal prospects, cabins, and graffiti; all have been deemed ineligible for inclusion on the National Register of Historic Places by SHPO.

## Socioeconomics

The Summit Creek Tract is located in Carbon County where coal mining is a major industry. In 2001, Carbon County produced 5.69 million tons of coal, the third highest coal producing county in Utah, after Emery County and Sevier County (Utah Department of Natural Resources, 2003).

The estimated county population in the year 2000 was 20,422 (Utah Census), down from its peak of 24,700 in 1982. The population continues to decline, estimated at 19,858 currently (source: July 2000-2002: Utah Population Estimates Committee), a population drop of 2.6 percent since 2000.

Mining jobs make up 9 percent of the employment in Carbon County (Workforce Services, 2002), as opposed to one percent in the State of Utah. According to the Utah Department of Workforce Services (GOPB, 2003), three of the top ten largest employers in Carbon County are coal mining companies (Canyon Fuels Company, ANDALEX Resources Inc., and West Ridge Resources, Inc.). The average monthly wage by major industry division is \$4,908 for mining in Carbon County (source: Utah Department of Workforce Services), the highest average wage for all industries in the county. This average monthly wage is about 19 percent higher than the state average for mining. Wages paid by the mining industry are an important component of Carbon County's economy, making up almost 20 percent of the total wages in the county

(source: Workforce Services). The employment is diversifying but is still dependant on the coal mining industry.

Economic multipliers are used to describe the effects on the economy of changes in the industrial sector. The Utah Governor's Office of Planning and Budget (GOPB) has developed multipliers for over 500 detailed industries in Utah. A direct effect employment multiplier is used to predict total changes in employment due to an initial direct change in a given sector or industry. The coal mining direct effect employment multiplier is 5.5, this indicates that for every job in the coal mining sector, employment in other sectors goes up by 4.5 jobs, and employment throughout the economy goes up by 5.5 jobs (GOPB, 2001). The coal mining multiplier, at 5.5, is well above the median multiplier of 2.5 of all jobs under all categories.

Federal coal leasing generates revenue including: (1) a bonus paid at the time the coal is leased, (2) rental payments to hold the lease, and (3) royalties paid on the value of the coal produced per year. The State in which the coal is leased receives half of the bonus bid as well as half of the royalties. Every competitively issued lease requires a royalty rate of 8 percent for coal mined by underground methods. The Utah Legislature distributes Federal mineral lease funds to communities, counties, and other entities as part of the annual budget and appropriation process.

## **Chapter 4 - Environmental Consequences**

### **Alternative A – No Action**

#### ***Topography and Geology***

If the lease were not made available for sale, there would be no coal extracted from the Summit Creek Tract, nor would there be potential for topographic alterations in the tract area due to mine-caused subsidence. Approximately 8.62 million tons of coal would be bypassed and probably never recovered.

#### ***Water Resources***

If the lease were not made available for sale, there would be no change in water resources in the Summit Creek Tract area. Mining of existing allowable coal would continue at the Aberdeen Mine, with the continuing intermittent need to pump intercepted groundwater from the mine into the Deadman Canyon drainage.

#### ***Paleontological Resources***

If the lease were not made available for sale, there would be no surface or underground disturbance in the lease area and therefore no impacts to paleontological resources as a result of this project.

#### ***Special Status Species***

Land uses including livestock grazing and limited recreational use in the area are expected to continue. Other surface disturbing activities are not currently proposed by the landowners. Special status species are not expected to be impacted by the continuation of existing uses on these private lands.

#### ***Range and Livestock***

Under the No Action alternative, the current uses of private surface lands for livestock grazing would continue. If the lease were not made available for sale, there would be no impacts to range and livestock resources.

#### ***Land Uses***

If the lease were not made available for sale, there would be no impacts to land uses. Any proposed developments by the landowners would be directed by the Carbon County Development Code (2003).

#### ***Cultural and Historical Resources***

There would be no impacts to known cultural resources. Existing grazing and recreational activities could impact unrecorded cultural resource sites.

#### ***Socioeconomics***

The Aberdeen Mine is expected to be out of reserves in two to three years. Without the Summit Creek Tract lease, either employment would have to shift to other coal producing operations or would decline. The employment multiplier would affect jobs in other sectors accordingly. Population in Carbon County would be expected to continue

to decline, according to trend. Potential coal royalties on 8.62 million tons of coal in the Summit Creek Tract would not be realized. The State of Utah would not receive the bonus bid payment from the lease and the annual royalties on coal produced. These funds would not be available for distribution to the counties, communities, and other eligible entities.

## **Alternative B – Proposed Action**

### ***Topography and Geology***

The leasing of the Summit Creek Tract and resulting barrier panel longwall mining is expected to result in recovery of approximately 8.62 million tons of coal (at 75 percent of in-place reserve).

Under this alternative, no surface subsidence would be expected due to: the cover thickness (approximately 2,600 - 3,000 feet); the use of barrier panels between the longwall runs; and the thickness and competence of the overlying Castlegate Sandstone. This conclusion is based upon analogous conditions at the adjacent Aberdeen Mine, where there have been no indications of ground surface lowering.

ANDALEX, as part of its obligation under its Utah Division of Oil Gas and Mining (UDOGM) operating permit, monitors surface subsidence associated with its Aberdeen Mine, adjacent to the Summit Creek Tract. Current monitoring of subsidence points in this area shows "no movement horizontally or vertically since they were established" according to the consultants under contract to ANDALEX to perform annual surveys (Ware Surveying and Engineering, 2003).

Should mine development occur in the Summit Creek Tract, subsidence monitoring would be expanded to cover the Tract area. Should surface subsidence occur, impacts would be limited to ground lowering in the order of 20-60 percent of the height of the extracted coal seam, i.e. 1.5 to 4.5 feet of ground lowering for an extracted 8-foot coal seam. Some surface tension cracks could appear which normally self heal within weeks of appearing.

Another mining scenario for ANDALEX involves the elimination of the barrier panels, or a substantial reduction in their size, that would result in a greater amount of coal potentially recovered (up to about 5 million tons), but would also increase ground movement in the mine based upon previous experience in similar geologic conditions at the existing Aberdeen Mine. The type of violent mine bumps (or rapid breakup of rock immediately above the mined seams) that occurred in the Aberdeen Mine prior to implementing the barrier panel plan currently in place could occur, causing unacceptable risks to mining personnel and equipment.

While there may be a greater likelihood of subsidence without the support of barrier pillars, it would likely be minor; the overburden thickness as well as the nature of the Castlegate Sandstone would still provide substantial vertical barriers to ground lowering. Minor surface cracking or isolated ground sagging could be more likely under this alternative, though rapid bridging would be expected. Escarpments such as are found

along the face of the Book Cliffs are not present on the gentler topography of the Summit Creek Tract, so that type of surficial failure would not be anticipated.

### ***Water Resources***

Under Alternative B, no impacts to surface or groundwater resources are expected to occur. There should be no surface disturbance within the Summit Creek Tract as a result of the leasing activity. If mining were to occur as a result of the lease sale, there should be only minimal surface disturbance. Measurable subsidence of the ground surface is not expected, as described in the Geology impacts sections, and thus no interruption of surface, spring, or groundwater water flows should occur. Similarly, stockponds should not be affected, nor should existing valid water rights be infringed upon. However, as part of the mine permitting process, UDOGM would require detailed inventories and continued monitoring of water resources prior to, during, and subsequent to mining activities.

Should ANDALEX obtain the lease and develop the coal in the Summit Creek Tract, the current situation whereby intercepted groundwater is intermittently pumped from the mine into the Deadman Canyon drainage would likely continue.

### ***Paleontological Resources***

If the Summit Creek Tract were leased and mined for coal utilizing longwall methods, fossils in the Blackhawk Formation could be destroyed during coal extraction activities. The Lease-Committed Measures (**Appendix B**) would provide mitigation measures for paleontological resources if future mine surface facilities or disturbances were needed.

### ***Range and Livestock***

Under the Proposed Action, there would be no surface disturbance and no substantive surface manifestations of mining; therefore, there should be no impacts to range and livestock resources and no impacts to water sources utilized for livestock (see Water Resources above).

### ***Special Status Species***

No surface disturbing activities are proposed, and the potential for subsidence is minimal; therefore, there should be no impacts to special status species. Nor should there be impacts to the four fish species due to water depletions or subsidence.

### ***Land Uses***

Under the Proposed Action, the Summit Creek Tract would be leased; this would be in conformance with the BLM's Price River Resource Area MFP. In addition, it would comply with county land use plans. Any minor subsidence associated with longwall mining should result in no material damage or diminution of value to land uses. The subsurface mining should not impact current land surface uses or potential for other surface uses as described by the Carbon County Development Code (2003).

### ***Cultural and Historical Resources***

The Proposed Action would have no impact on known cultural resource sites. There would be no surface disturbance and no substantive surface manifestations of mining;

therefore, there should be no impacts to cultural resources. The Lease-Committed Measures (**Appendix B**) would provide mitigation measures for cultural resources if future mine surface facilities or disturbances were needed.

### ***Socioeconomics***

The leasing of the Summit Creek Tract lease would extend the life of the Aberdeen Mine by 5 to 10 years. No additional employees would be needed, since full production under the current lease would be about the same as that under the Summit Creek lease. However, employment duration would be extended accordingly, and the stability of the economy in Price and Carbon County would be positively affected. In addition to extension of the mine-related jobs for 5 to 10 years, the employment of 4.5 jobs in other sectors would also continue for an additional 5 to 10 years. Carbon County population would be expected to continue to decline according to trend.

ANDALEX would be required to pay a bonus bid, as well as lease rental payments and royalties of 8 percent on coal to be mined. The State of Utah would receive half of the bonus bid as well as half of the royalties. Additionally, Carbon County, Price, and area communities could receive economic benefits from the State from the mineral lease funds.

## **Reasonable Foreseeable Development & Cumulative Impacts**

### ***Reasonable Foreseeable Development (RFD)***

The lands of the proposed lease area are privately owned; therefore, there are no other foreseeable public developments on the proposed project area. Adjacent lands with Federally administered mineral rights, to the north or the east, could be leased for additional underground coal mining. ANDALEX currently holds a private coal lease for the lands in Section 36 T12S R10E adjacent to the west. There are no other surface developments currently proposed.

### ***Cumulative Impacts***

Cumulative impacts are those that result from the incremental impact of an action in combination with other past, present, and reasonably foreseeable future actions.

There would be no cumulative surface resource impacts. The extraction of 8.625 million tons of coal from the Summit Creek Tract would add to the total extraction of coal in this area, under the Centennial Project. However, no incremental impacts are expected from the recovery of coal. Cumulative benefits are the contribution to continued economic stability for the town of Price, surrounding communities, and Carbon County.

## **Consultation and Coordination**

ANDALEX Resources, Inc.  
Mike Glasson

Carbon County, Planning and Building Departments  
Gayla Williams, Deputy Zoning Administrator

Private Landowners  
Mildred and Dave Cave  
Funnon T. Shimmin

Utah Division of Oil, Gas, & Mining  
Gregg Galecki, Reclamation Hydrologist

Utah Division of Wildlife Resources  
Chris Colt, Habitat Biologist  
Tony Wright, Habitat Biologist

Utah Natural Heritage Program Database

Utah Natural Resources Conservation Service, Price Field Office

Utah School and Institutional Trust Lands Administration  
John Blake, Mineral Resource Specialist

## References

- ANDALEX, 2001. Coal Lease Application, Centennial Project, Carbon County, Utah.
- BLM, 2003. Summit Creek Tract Delineation Review Report. Lease By Application UTU-79975, ANDALEX Resources, Inc. Uinta-Southwestern Utah Coal Region, Bureau of Land Management, Utah.
- BLM, 1991. San Rafael Resource Area Resource Management Plan/Final Environmental Impact Statement.
- BLM, 1990. ANDALEX Centennial Mine Project, Coal Lease Environmental Assessment # UT-066-90-12. Bureau of Land Management, Price Field Office, Utah.
- BLM, 1984. Price River Resource Area, Management Framework Plan Summary. Moab District.
- BLM, 1983. Uinta-Southwestern Utah Coal Region: Round Two Final Environmental Impact Statement. USDI, Bureau of Land Management, Utah State Office.
- Carbon County, 2003. Carbon County Development Code. March 19, 2003.
- Carbon County, 1981. Carbon County Land Use Plan: Zoning Ordinance.
- Governor's Office of Planning and Budget (GOPB), 2001. *Utah State and Local Government Fiscal Impact Model Working Paper Series: 2001-1: Multipliers for Utah*. Demographic and Economic Analysis Section, Salt Lake City.
- Governor's Office of Planning and Budget (GOPB), 2003. County Information for Carbon County. Website: <http://governor.utah.gov/dea>. Visited: October 2003.
- Mayo and Associates, LC, April 19, 2002. Probable Hydrologic Consequences of Coal Mining in the 240-Acre IBC at the ANDALEX Resources, Inc. Tower Mine, Carbon County, Utah. Prepared in support of ANDALEX Resources, Inc. Mining and Reclamation Plan.
- Paleontological Resources website, 2003: [www.dinosauria.com/jdp/law/baucus.htm](http://www.dinosauria.com/jdp/law/baucus.htm)
- Reed, Alan D. and Susan M. Chandler, 1984. *A Sample Oriented Cultural Resource Inventory in Carbon, Emery, and Sanpete Counties, Utah*. BLM Contract No. YA-553-CT2-1080. Nickens and Associates, Montrose, Colorado.
- Soil Conservation Service, 1988. Soil Survey of Carbon Area, Utah.
- Utah Department of Natural Resources, 2003. 2001 Annual Review and Forecast of Utah Coal Production and Distribution. Utah Geological Survey and Utah Energy Office of the Department of Natural Resources. January 2003.
- Utah Division of Water Rights, 2003. Water Rights query of State of Utah water rights database at <http://nrwrt.nr.state.ut.us/>

Utah Division of Wildlife Resources, Utah Sensitive Species List by County.  
USDI, 1979. Final Environmental Statement, Development of Coal Resources in Central Utah.

Vaughn Hansen Associates, February 1981. Surface and Groundwater Hydrologic Inventory of the Tower Mine Plan and Adjacent Areas, Carbon County, Utah. The Centennial Project. Prepared for Tower Resources, Inc., Price, Utah.

Waddell, K.M. et al, 1986. Hydrology of the Price River Basin, Utah With Emphasis on Selected Coal-Field Areas. U.S. Geological Survey Water-Supply Paper 2246.

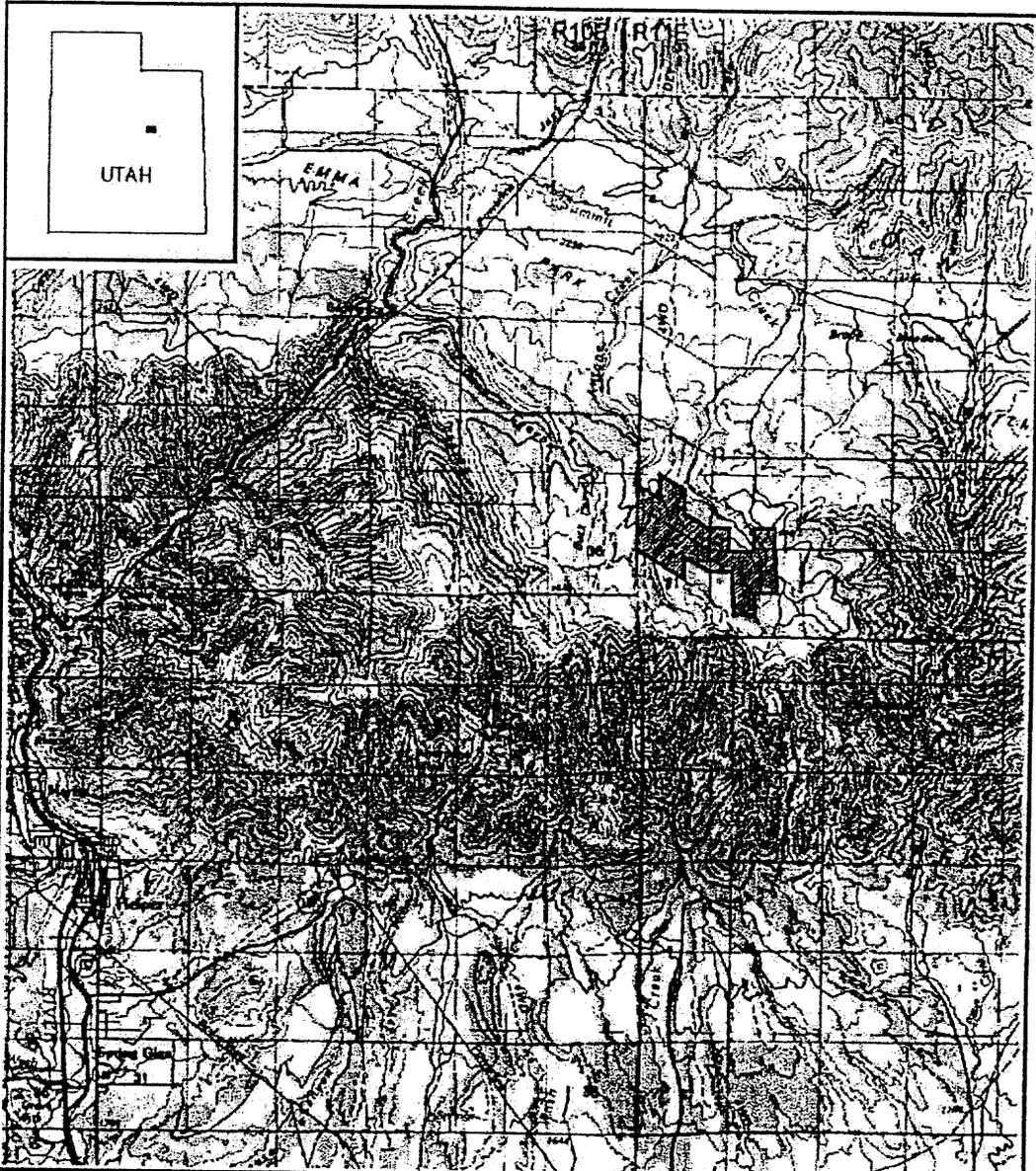
Ware Surveying and Engineering, October 19, 2003. Letter to ANDALEX Resources, Inc. conveying 2003 Subsidence Survey results.

## List of Preparers

<b>Bureau of Land Management</b>		
Name	Education and Experience	Responsibility
Stephen Falk	B.S. Mining Engineering 22 Years Experience	Price Field Office BLM, Project Manager
Jim Kohler	M.S. Geology 30 Years Experience	State Office BLM, Solid Minerals Branch. Chief
Jeff McKenzie	B.S. Mining Engineering MBA 30 Years Experience	State Office BLM, Mining Engineer, COR
Kerry Flood	B.S. Chemistry 13 Years Experience	Price Field Office, BLM, Hydrologist
Blaine Miller	M.A. Archeology 32 Years Experience	Price Field Office, BLM, Archeologist
Brad Higdon	B.S. Interdisciplinary Studies 10 Years Experience	Price Field Office, BLM, NEPA Coordinator
<b>Office of Surface Mining Reclamation and Enforcement</b>		
Name	Education and Experience	Responsibility
Floyd McMullen	M.S. Environmental Science 30 Years Experience	Denver, Colorado, OSM, Environmental Project Coordinator
<b>JBR Environmental Consultants, Inc.</b>		
Name	Education and Experience	Responsibility
Linda Matthews	B.S. Environmental Studies 15 Years Experience	Project Management EA Preparation
Karla Knoop	B.S. Watershed Science Professional Hydrologist 17 Years Experience	Water Resources Subsidence
Jenni Prince-Mahoney	B.A. Anthropology 10 Years Experience	EA Preparation Cultural/Paleo Resources Land Use Recreation Socioeconomics
Jim Sage	B.S. Geology 3 Years Experience	Geology Minerals

---

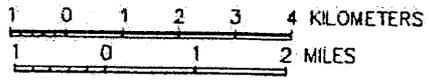
**FIGURES**



TOPOGRAPHIC BASE USGS 1:100,000 SCALE MAP. PRICE, UTAH, 1980

**BLM  
SUMMIT CREEK TRACT**

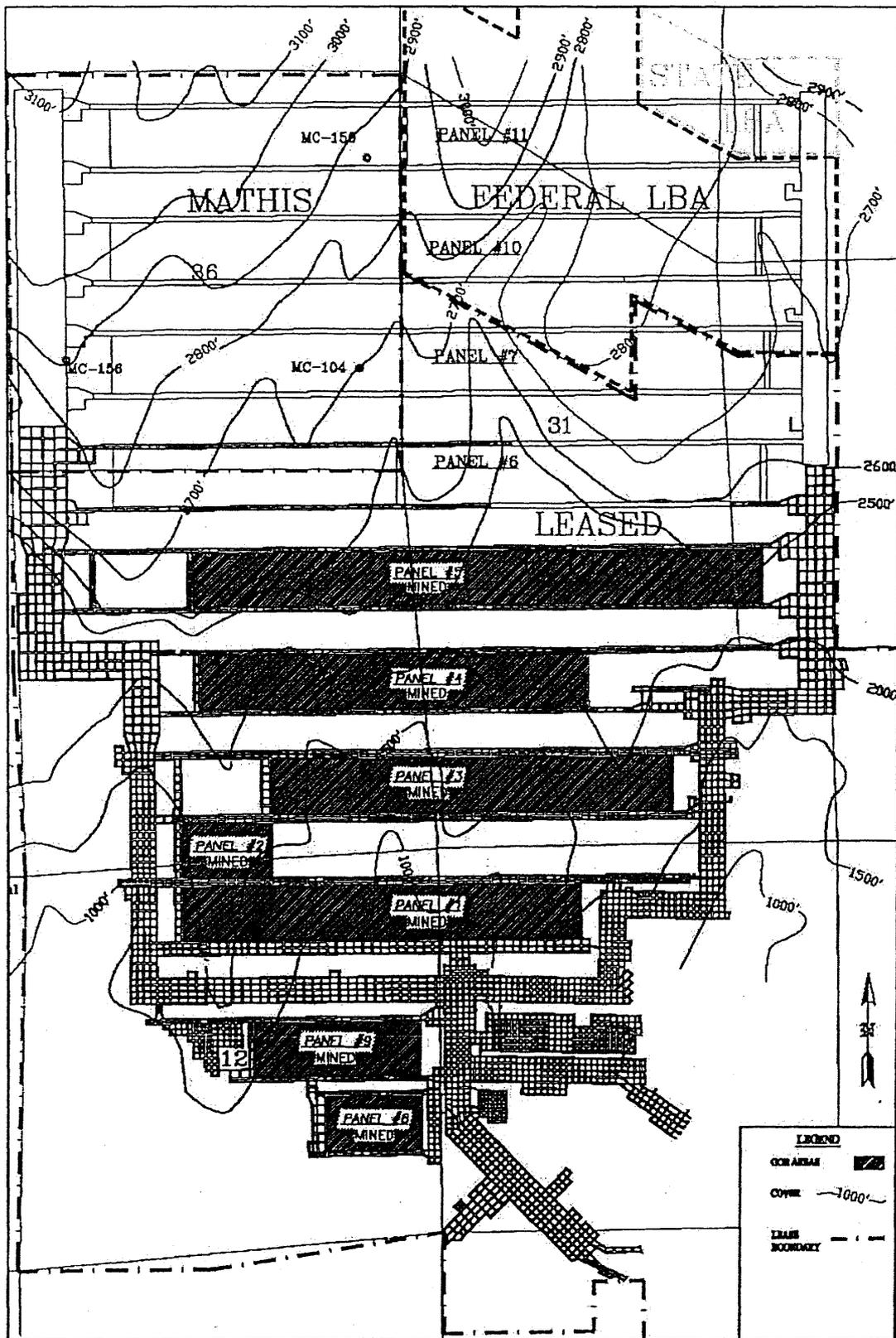
**FIGURE 1  
LOCATION MAP**



<b>jbr</b> environmental consultants, inc.		DATE DRAWN	10/23/03
DESIGNER	DRAWN	CHECKED	SCALE
JM	CP	BY	1:100,000

drawing\BLM\UT01\SurfaceOwnership.dwg





Aberdeen Mine Map  
Mining Projections

FIGURE 3  
SCALE: 1" = 1200'



**ANDALEX**  
RESOURCES, INC.  
Tower Division

## Appendix A - Public Scoping



**UTAH**  
**BLM**  
BUREAU OF LAND MANAGEMENT  
UNITED STATES

FOR RELEASE  
CONTACT

Immediately  
Patrick Gubbins  
Field Manager

**News Release**  
DEPARTMENT OF THE INTERIOR

1222.21 (UT-070)

The Bureau of Land Management is requesting public comment in conjunction with the preparation of an environmental assessment for a Federal coal lease application. This request, referred to as scoping, seeks public input as to any issues concerning this coal lease application. Andalex Resources, Inc. has made application to lease Federal coal on a tract of land so named the Summit Creek Tract with assigned serial number UTU-79975, located adjacent to the existing Tower/Aberdeen Mine property north of Price in Carbon County, Utah.

The proposed lease tract contains 702.73 acres of unleased Federal coal with the surface estate held by private ownership. The lands are described as follows:

- T. 12 S., R. 11 E., SLM, Utah
- Sec. 29, SW1/4SW1/4, SW1/4SE1/4;
- Sec. 30, lots 4, 12, 14-16;
- Sec. 31, lots 1, 2, 7-11;
- Sec. 32, W1/2NE1/4, E1/2NW1/4, NW1/4NW1/4, NE1/4SW1/4.

Andalex has applied for this lease tract to add coal reserves at the Tower/Aberdeen Mine. The tract lies back under the Book Cliffs north and adjacent to the existing mine property. There are no coal outcrops on the tract as the entire tract is under the Book Cliffs with the coal seams approaching 3000 feet deep. Though all coal leases are leased competitively, the probable access to these coal reserves is from the existing mine workings of the Aberdeen Mine. The Summit Creek Tract will be mined by underground mining methods with no new surface facilities expected.

The BLM will prepare an environmental assessment (EA) of the proposed coal lease tract to address impacts prior to holding a lease sale. Any public comment or input for the EA will be taken by the BLM within 30 days and considered for use in the document. A copy of the lease application and pertinent maps are available for inspection at BLM Price Field Office at 125 South 600 West, Price, Utah, during business hours of 7:45 a.m. to 4:30 p.m. Written comments should be mailed or delivered to the same address. For more information, you may contact Stephen Falk at the Price Field Office or phone 801-636-3600.

Distribution:

Emery Progress  
Sun Advocate  
KOAL Radio  
KRPX Radio

**SLEEP**

...it is something we don't think much about. But for many of us, it is not easy. For those with a condition called Sleep Apnea, actually getting a good night's sleep is literally a dream. At Castleview Hospital Sleep Disorder Center, we provide a complete evaluation of a variety of sleep conditions.

...attended sleep studies in a bright, new, quiet, comfortable, state-of-the-art laboratory.

...is a major risk factor for stroke, hypertension, heart disease, heart failure, and diabetes. Data is also accumulating to show that many of these conditions are reduced or eliminated with proper treatment.

...evaluation, call Castleview Hospital Sleep Disorder Center at 435-636-4862.

**CASTLEVIEW HOSPITAL**

personnel, Mayne evacuated the school and a search was conducted for other explosives. No other devices were discovered. The investigation indicated two firebombs were thrown near the east entry of the

school to the Utah Crime Laboratory for analysis. To report information about the crime, residents call the Serrano Police Department at 888-4444 or the Price dispatch center at 637-0893.

## BLM accepting public input on Andalex application for Summit Creek coal lease.

The United States Bureau of Land Management is requesting public comment in conjunction with the preparation of an environmental assessment for a federal coal lease application at a site located north of Price in Carbon County.

The request, referred to as scoping, seeks public input as to any issues concerning the coal lease application, explained the federal agency.

**Thank You**

**AMERICA'S VETERANS!**

Veterans Day is the time to say thank you to those who have worn a military uniform and to those who today are keeping strong the unbroken bond of service.

*To each and every one who serves, we say thank you.*

[www.veterans.org](http://www.veterans.org)

Andalex Resources Inc. has made application to lease federal coal on the Summit Creek tract, located adjacent to the existing Tower/Aberdeen mine property north of Price in Carbon County.

The proposed lease tract contains 702.73 acres of unleased federal coal, with the surface estate retained by private ownership, pointed out the BLM.

Andalex has applied for the lease tract to add coal reserves at the Tower/Aberdeen mine.

The tract lies back under the Book Cliffs north and adjacent to the existing mine property.

There are no coal outcrops on the tract as the entire site is under the Book Cliffs with the coal seams approaching 3,000 feet deep, explained the federal agency.

Although all federal leases are awarded competitively, the BLM pointed out that the probable access to the coal reserves at the Summit Creek tract is from the existing workings of the Aberdeen mining operation.

The Summit Creek tract will be mined by underground mining methods with no new surface facilities expected.

The BLM will prepare an environmental assessment (EA) of the proposed coal lease tract to address impacts prior to conducting a sale.

Public input for the EA will be taken by the BLM within 30 days and considered for use in the document.

A copy of the application and permit maps are available for inspection at Price BLM field office Monday through Friday from 7:45 a.m. to 4:30 p.m. Written comments should be mailed or delivered to the office at 125 S. 600 West, Price, UT 84501.

For additional information, contact Stephen Falk or call the Price BLM field office at 636-3600.



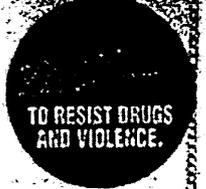
## Safe. Reliable. Affordable.

You flip a switch. The light goes on. Things look brighter. That's what we work for. Our pledge will always be to provide you with safe, reliable and affordable power. We back this with our Customer Guarantee. Courtesy like returning phone calls on time, honoring appointments and coming through when you need us are all part of this commitment - guaranteed.

To learn about our eight Customer Service Guarantees, energy conservation and safety, visit [www.utahpower.net](http://www.utahpower.net) or call us at 1-888-221-7070.



**UTAH POWER**  
Making it happen.



Price Field Office  
125 South 600 West  
Price, Utah 84501

SEP 24 2003

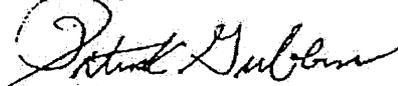
3420  
UTU-79975  
(UT-070)

Dear Private Land Owners/Affected Interests:

Enclosed is a copy of a news release announcing the intent of the Bureau of Land Management (BLM) to write an environmental assessment (EA) for a coal lease application submitted by Andalex Resources, Inc. The coal tract, named the Summit Creek Tract, is north adjacent to Andalex Resources Tower Division's current lease holdings in the Book Cliffs north of Price, Carbon County, Utah. As possible surface owners and/or interested parties, we have sent this copy to you for your use/information.

For further information or questions, a contact at the BLM is noted in the news release.

Sincerely,



Patrick Gubbins  
Field Manager

Enclosure  
News Release

cc: UT-923, SD, Utah (w/encl.)

SFalk:ks:9/19/03  
sumitcrksurfown.notic

Send to:

Dave R. and Mildred Cave, et. al  
Sunnyside Star Route  
Price, Utah 84501

Mathis Land Company  
Sunnyside Star Route  
Price, Utah 84501

F. and D. Shimmin  
711 North 500 East  
Price, Utah 84501

Price City  
185 East Main Street  
Price, Utah 84501

School & Institutional Trust Lands Administration  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102

Office of Surface Mining  
1999 Broadway, Suite 3320  
Denver, CO 80202

Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

---

**Appendix B – Lease-Committed Measures**

## ***Standard Lease Stipulations - Lease-Committed Measures***

### **Lease Form**

#### ***Reclamation***

In accordance with Section 523(b) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA), surface mining and reclamation operations on this lease are to conform with the requirements of this act and are subject to compliance with OSM regulations, or as applicable, a Utah program equivalent approved under cooperative agreement in accordance with Section 523(c). The United States government does not warrant that the entire tract will be conducive to mining.

#### ***Permitting***

The permitting of any mining operations on the lease will be subject to the possible designation of any portion of the lease as unsuitable for some or all kinds of surface mining under the regulations of the department under the SMCRA in effect at the time of action on the mine plan permit.

#### ***Cultural Resources***

Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a cultural resource inventory of the areas to be disturbed. These studies shall be conducted by a qualified, professional cultural resource specialist and a report prepared itemizing the findings. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for identified cultural resources.

If significant cultural resources are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate, or have evaluated, such discoveries and, within five working days, shall notify the lessee what action shall be taken with respect to such discoveries.

The cost of conducting the inventory, preparing reports, and carrying out necessary protective mitigating measures shall be borne by the lessee.

#### ***Paleontological Resources***

Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a paleontological appraisal of the areas to be disturbed. The appraisal shall be conducted by qualified paleontologists and a report of the findings prepared. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for, identified paleontological resources.

If paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate, or have evaluated, such discoveries and, within five working days, shall notify the lessee what action shall be taken with respect to such discoveries. Paleontological remains of significant scientific interest do not include leaves, ferns, or dinosaur tracks commonly encountered during underground

mining operations.

The cost of conducting the inventory, preparing reports, and carrying out necessary protective mitigating measures shall be borne by the lessee. The cost of salvage of paleontological remains (fossils) shall be borne by the United States.

#### *T&E Species*

If there is reason to believe that threatened or endangered species of plants, animals, or migratory species of high Federal interest occur in the area, the lessee shall be required to conduct an intensive field inventory of the area to be disturbed and /or impacted. The inventory shall be conducted by a qualified specialist and a report of findings prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

The lessee shall conduct intensive raptor nesting surveys of all areas within one-mile circumference of the outside edge of any proposed surface disturbance. Any surveys will be conducted by qualified specialists. The cost of conducting the inventory, preparing reports, and carrying out necessary protective mitigating measures shall be borne by the lessee.

No permanent surface disturbance or occupancy will be permitted within one-half mile of any raptor nests identified as being occupied within a three year period. Site-specific evaluations in coordination with the U.S. Fish and Wildlife Service may allow for modification of this requirement.

#### *Surface Resources*

Should surface development be proposed, the lessee shall be required to perform a study to secure adequate baseline data to quantify the existing surface resources on and adjacent to the lease area. Existing data may be used if such data is adequate for the intended purposes. The study shall be adequate to locate, quantify, and demonstrate the interrelationship of the geology, topography, surface hydrology, vegetation, and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

#### *Miscellaneous*

The lessee shall be required to establish a monitoring system to locate, measure, and quantify the progressive and final effects of underground mining activities on the topographic surface, underground and surface hydrology, and vegetation. The monitoring system shall utilize techniques that will provide a continuing record of changeover time and an analytical method for location and measurement of a number of points over the lease area. The monitoring shall incorporate and be an extension of the baseline data.

If a spring is located in the area and the BLM Area Manager determines that spring flow has been adversely impacted, the lessee would fund a water catchment project that would satisfactorily compensate for decreased flows or other adverse impacts. The project will be designed by the BLM and the timing of the project will be determined by the BLM. The maintenance of the project will be the responsibility of the leaseholder

and their successor in interest.

Except at specifically approved locations, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: 1) cause the creation of hazardous conditions, such as potential escarpment failure and landslides, 2) cause damage to existing surface structures, and 3) damage or alter the flow of perennial streams.



## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, UT 84145-0155

<http://www.blm.gov>



IN REPLY PLEASE REFER TO:

3482

UTU-79975

(UT-923)

AUG 12 2004

Pamela Grubaugh-Littig  
Permit Supervisor  
State of Utah  
Division of Oil Gas and Mining  
1594 West North Temple Street, Suite 1210  
Salt Lake City, Utah 84114-5801

Re: Resource Recovery and Protection Plan (R2P2), Federal Coal Lease Addition, UTU-79975, Aberdeen Mine, ANDALEX Resources, Inc. C/007/0019

Dear Ms. Grubaugh-Littig:

The Bureau of Land Management (BLM) has received and reviewed the subject R2P2 as part of the permit application package for adding Federal coal lease UTU-79975 to the approved Centennial Mine Complex Permit. This letter documents the BLM's finding for the R2P2.

ANDALEX has submitted mining and reclamation plans (the R2P2 being part of the submission) to add the new Summit Creek coal lease (UTU-79975) to the existing Centennial Mine Complex Permit. Underground mining using longwall mining methods will continue north into the new lease from the existing Aberdeen Mine workings (part of the Centennial Mine Complex) and will not change any of the existing surface facilities. Mining to the east extent of the lease will extend as far as economically and operationally practical to achieve Maximum Economic Recovery (MER) as approved by BLM.

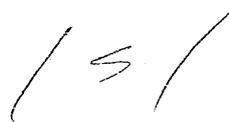
This 703 acre lease addition, along with an adjacent fee coal addition, will allow Andalex to possibly mine 3 extra longwall panels under extremely deep cover. Mining this lease will avoid bypass of this coal resource and extend the mine life by about 6 years. BLM has reviewed the submitted R2P2 and has determined it to be complete and a logical plan to mine the Federal coal.

Please note that ANDALEX has first submitted an Incidental Boundary Change (IBC) to allow longwall development entries to be mined across a corner of the lease before full permit approval of the whole lease can be given. Since these development entries are part of the R2P2, our recommendation for R2P2 approval is the same for the IBC as the full lease permit.

The BLM finds the submitted R2P2 in compliance with the Mineral Leasing Act of 1920, as amended, the lease terms and conditions, the regulations at 43 CFR 3480, and will achieve maximum economic recovery of the Federal coal. We therefore recommend that the Secretary approve the R2P2 as part of the Federal Mine Plan.

If you have any questions, please contact Jeff McKenzie of my staff at (801) 539-4038 or Stephen Falk at the Price Field Office at (435) 636-3605.

Sincerely,



James F. Kohler  
Chief, Solid Minerals Branch

Enclosure

R2P2 for Federal Lease UTU -79975  
with BLM Utah State Office Approved Mine Plan

cc: Office of Surface Mining (with enclosure)  
P.O. Box 46667  
Denver, Colorado 80201-6667

Price Field Office, UT-070 (w/o enclosure)

ANDALEX Resources, Inc. (w/o enclosure)  
P. O. Box 902  
Price, Utah 84501



United States Department of the Interior  
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE  
2369 WEST ORTON CIRCLE, SUITE 50  
WEST VALLEY CITY, UTAH 84119

In Reply Refer To

FWS/R6  
ES/UT  
04-1251

September 1, 2004

RECEIVED  
SEP 03 2004

DIV. OF OIL, GAS & MINING  
*Incoming*  
C/007/0019

Pamela Grubaugh-Littig  
Utah Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Informal Section 7 Endangered Species Consultation, Mathis/Summit Creek IBC,  
Andalex Resources Inc., Centennial Mine, C/007/0019, Carbon County

Dear Ms. Grubaugh-Littig:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter of August 2, 2004 requesting informal section 7 consultation for the Mathis/Summit Creek IBC Andalex Resources Inc Centennial Mine. Potential impacts to proposed or listed species from mining activities have been previously addressed in the Service's September 24, 1996 Biological Opinion and Conference Report on Surface Coal Mining and Reclamation Operations under the Surface Coal Mining and Reclamation Act of 1977. As part of the terms and conditions of this BO, the regulatory authority must implement and require compliance with any species-specific protective measures developed by the Service field office and the regulatory authority.

Bald eagles are common in the area during the winter and could occasionally fly or roost in the proposed addition to the permit area. However, underground mining would have un-discernible or negligible effects upon wintering bald eagles. Based upon the information presented in your letter, we concur with your "not likely to adversely affect" determination for the bald eagle.

Calculations of water consumption by mining operations show that the total is estimated to be a net gain of 47.61 acre-feet. The net gain is derived from extracting and using water that is encountered during the mining operations. Before water can be discharged into the stream, water must be initially sampled and then monitored monthly to ensure water quality meets criteria as set forth by DOGM and EPA. To ensure the extraction of sub-surface water does not lead to subsistence, the operator is required to sample and monitor the springs above the mine. Based on the information that this project will not result in depletion to the Colorado River system, we concur with your "not likely to adversely affect" determination for the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. Therefore, no endangered species-specific protective measures for these fish are considered necessary for the subject project.

Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

Only a Federal agency can enter into formal Endangered Species Act section 7 consultation with the Service. A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare a biological assessment by giving written notice to the Service of such a designation. The ultimate responsibility for compliance with ESA section 7, however, remains with the Federal agency.

We appreciate your interest in conserving endangered species. If further assistance is needed or you have any questions, please contact Diana Whittington, at (801) 975-3330 extension 128.

Sincerely,



Henry R. Maddux  
Utah Field Supervisor

cc: OSM - Denver (Attn: Ranvir Singh)  
BLM - Price Field Office  
FS - Manti LaSal, Price  
Andalex Resources, Inc. (Attn: Mike Glasson), 6750 Airport Road, P.O. Box 902, Price,  
Utah, 84501



# State of Utah

Department of Community & Economic Development  
 Division of State History  
 Utah State Historical Society



Michael O. Leavitt  
 Governor  
 Max J. Evans  
 Director

300 Rio Grande  
 Salt Lake City, Utah 84101-1182  
 (801) 533-3500  
 FAX: (801) 533-3503

July 7, 1994

Pamela Grubaugh-Littig  
 Permit Supervisor  
 Division of Oil, Gas and Mining  
 355 West North Temple  
 3 Triad Center, Suite 350  
 Salt Lake City, UT 84180-1203

RE: Addition of Aberdeen Seam to Lease UTU-69600, Centennial  
 Mine, Andalex Resources, Inc., ACT/007/019-94B, Folder #2,  
 Carbon County, Utah

In Reply Please Refer to Case No. K439

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office received information on the project referenced above. We have previously concurred with your recommendations for the project, and have no additional comment at this time. We appreciate being informed as to the progress of the project, and will be adding this information to the case file.

This information is provided on request to assist DOGM with its Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-3555.

Sincerely,

Wilson G. Martin  
 Associate Director and  
 Deputy State Historic Preservation  
 Officer

WGM:K439 NP/NE



Division of State History  
(Utah State Historical Society)  
Department of Community and Economic Development

Norman H. Bangertor  
Governor

Max J. Evans  
Director

300 Rio Grande  
Salt Lake City, Utah 84101-1182

June 15, 1988

Adrienne Shaver  
Andalex Resources, Inc.  
Tower Division  
P. O. Box 902  
Price, Utah 84501

RE: Andalex Resources Lease in Deadman Canyon, Carbon County, Utah

In Reply Please Refer to Case No. L315

Dear Ms. Shaver:

In reply to your letter of June 6, 1988 requesting information on historic properties in the above referenced area, our office has no information on any historic properties that may be located in the area. One cultural resource survey was conducted in the area, which did not locate any cultural resources. The area has a low potential for having historic properties, but does have a potential for rock shelters or rock art. If there are any historic structures on the property, these should be evaluated for National Register of Historic Places eligibility. Andalex Resources, Inc. can use this information in making any further recommendations regarding the project.

The above is provided on request as outlined by 36 CFR 800 or Utah Code, Title 63-18-37. If you have questions or need additional assistance, please contact Diana Christensen at (801) 533-7039, or 533-6017.

Sincerely,

At Kent Powell  
Deputy State Historic  
Preservation Officer

DC:L315/5677V OFR/NP

United States Department of the Interior



OFFICE OF THE SOLICITOR  
Rocky Mountain Region  
755 Parfet Street, Suite 151  
Lakewood, CO 80215  
TELEPHONE. (303) 231-5353  
FAX (303) 231-5363

October 13, 2004

MEMORANDUM

To: Carl R. Johnston, Utah Federal Lands Coordinator,  
OSM

From: *John R. Kunz*  
John R. Kunz, Assistant Regional Solicitor

Subject: Mining Plan Modification Decision Document for  
Andalex Resources, Inc. Centennial Mine, Carbon  
County, UT (Federal Lease UTU 79975)

We have reviewed the draft mining plan decision document for the subject mine. Subject to you satisfactorily addressing the comments noted in the attachment, we find that this document is legally sufficient for the purposes for which it is intended.

We did not attempt to verify land or legal descriptions, or map depictions.

The draft mining plan modification decision document is attached.

Attachment (draft mining plan decision document)

UNITED STATES  
DEPARTMENT OF THE INTERIOR

This mining plan approval document is issued by the United States of America to:

Andalex Resources, Inc.  
6750 Airport Road  
P.O. Box 902  
Price, Utah 84501

for a mining plan modification for Federal lease UTU-79975 at the Centennial Mine. The approval is subject to the following conditions. Andalex Resources, Inc. is hereinafter referred to as the operator.

1. Statutes and Regulations.--This mining plan approval is issued pursuant to Federal lease UTU-79975; the Mineral Leasing Act of 1920, as amended (30 U.S.C. 181 et seq.); and in the case of acquired lands, the Mineral Leasing Act for Acquired Lands of 1947, as amended (30 U.S.C. 351 et seq.). This mining plan approval is subject to all applicable regulations of the Secretary of the Interior which are now or hereafter in force; and all such regulations are made a part hereof. The operator shall comply with the provisions of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), and other applicable Federal laws.
2. This document approves the mining plan modification for Federal lease UTU-79975 at the Centennial Mine and authorizes coal development or mining operations on the Federal lease within the area of mining plan approval. This authorization is not valid beyond:

Township 12 South, Range 11 East SL Meridian Utah

Beginning at the NW Corner of Section 31 (T12S, R11E)  
thence S 00 ° 24'W 2675 .8' ;  
thence S 61 ° 52'E 743 .0' to point of beginning ;  
thence due East 3867 .5' to the east section line of said Section 31 ;  
thence due South 735 .0' along the East section line of said Section 31 ;  
thence N 61 ° 62'W 1553 .2' ;  
thence due South 1334 .3' to the Southeast corner of Lot 11 ;  
thence N 61 ° 52'W 2832 .3' to point of beginning .  
Beginning at the NW corner of Section 32 (T12S, R11E)  
thence due South 592 .0' along the West section line of said  
Section 32 to point of beginning ;  
thence due East 1320' ;  
thence due South 747 .6' ;  
thence due West 1320' ;  
thence due North 747 .6' along the West section line of said

Section 32 to point of beginning .

Mining Plan Approval Document No. UT-0022

Page 2 of 2

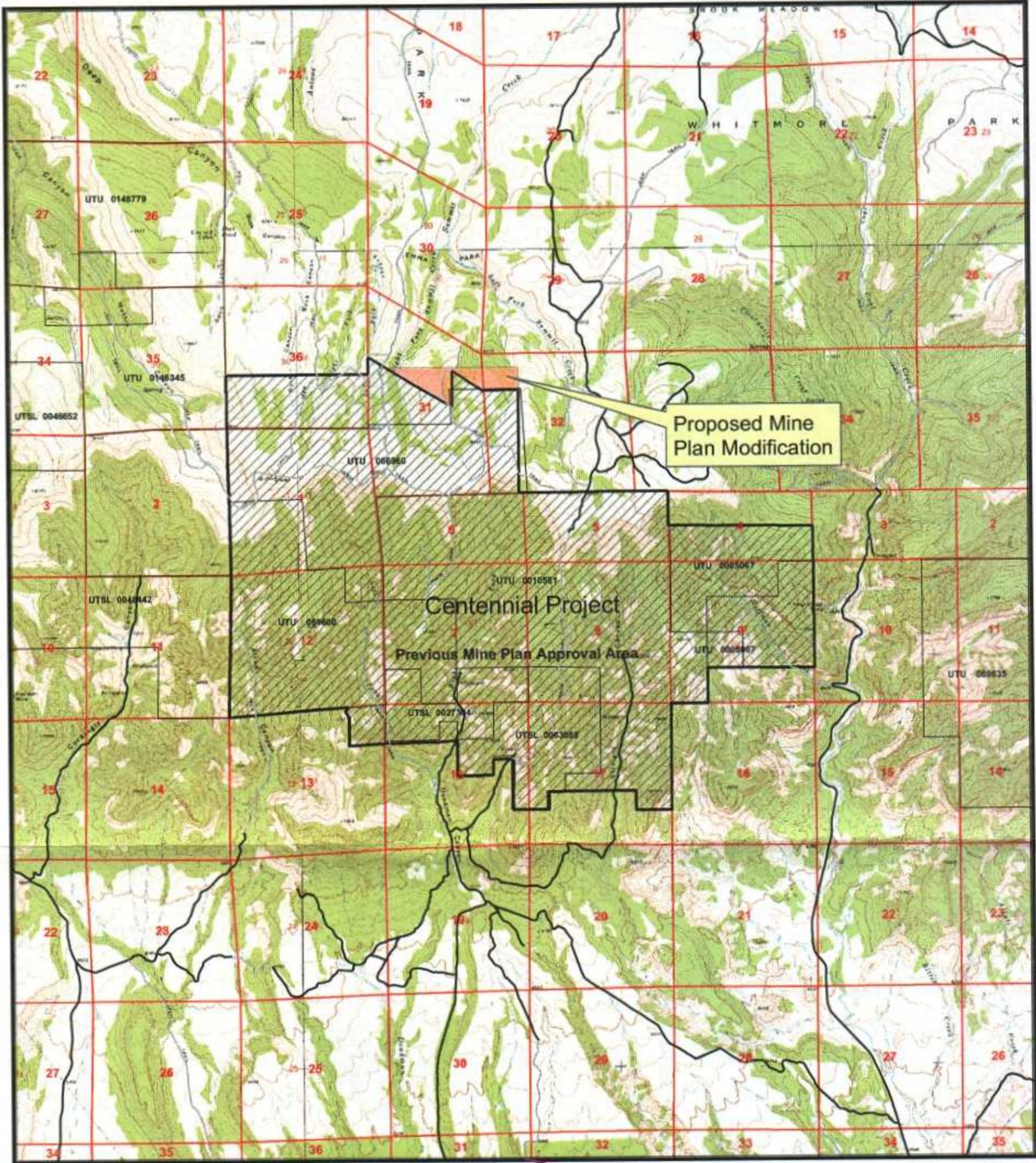
These lands encompass approximately 72.32 acres and are found on the USGS 7.5 minute Quadrangle map of Deadman Canyon and Helper, Utah, and as shown on the map appended hereto as Attachment A.

3. The operator shall conduct coal development and mining operations only as described in the complete permit application package, and approved by the Utah Division of Oil, Gas and Mining, except as otherwise directed in the conditions of this mining plan approval.
4. The operator shall comply with the terms and conditions of the lease, this mining plan approval, and the requirements of the Utah State Permit No. C/007/019 issued under the Utah State program, approved pursuant to the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 *et seq.*).
5. This mining plan approval shall be binding on any person conducting coal development or mining operations under the approved mining plan and shall remain in effect until superseded, canceled, or withdrawn.
6. If during mining operations unidentified prehistoric or historic resources are discovered, the operator shall ensure that the resources are not disturbed and shall notify Utah Division of Oil, Gas and Minerals and the Office of Surface Mining Reclamation and Enforcement (OSM). The operator shall take such actions as are required by Utah Division of Oil, Gas, and Minerals in coordination with OSM.
7. The Secretary retains jurisdiction to modify or cancel this approval, as required, on the basis of further consultation with the U.S. Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act, as amended, 16 U.S.C. 1531 *et seq.*

FOR

  
Assistant Secretary  
Land and Minerals Management

10/25/04  
Date



# Centennial Project

ACT0070019

Carbon County, Utah

Township 12 South Range 11 East

September 2004

RECEIVED

NOV 03 2004

DIV. OF OIL, GAS & MINING

File: N:/gis/coal/coalareamaps/C0070034Fed.pdf

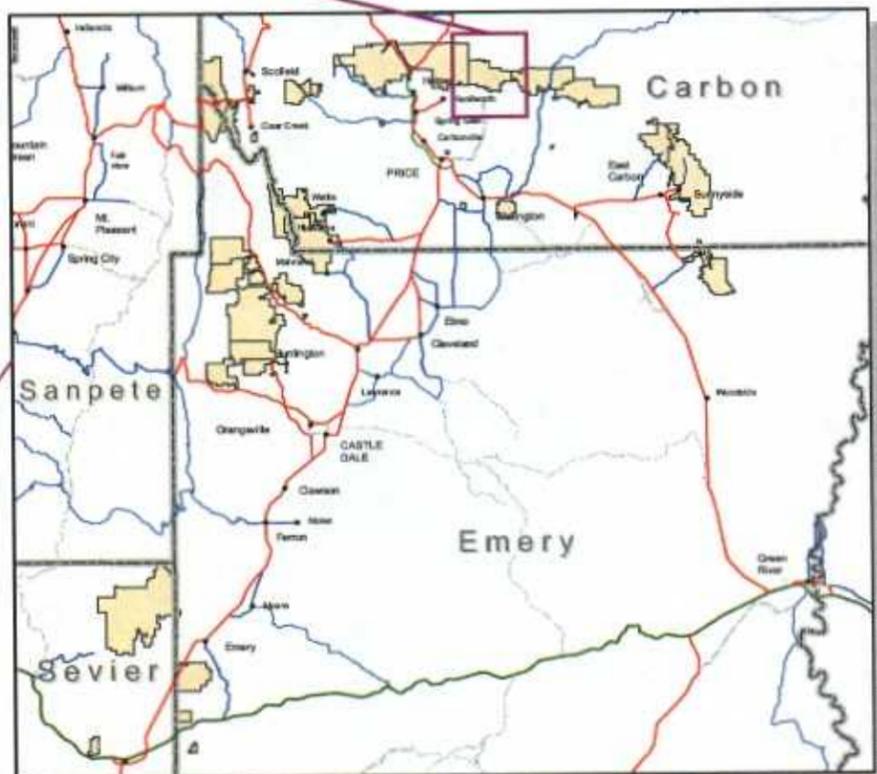


0 0.25 0.5 1 Miles

1:48,000



State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining



Locator Map

September 3, 2004

Ranvir Singh  
Office of Surface Mining  
1999 Broadway, Suite 3320  
P.O. Box 46667  
Denver, Colorado 80201-6667

Dear Mr. Singh:

Re: State Final Findings and Supporting Documentation, Summit Lease Tract – Incident Boundary Change, Andalex Resources Inc., Centennial Mine, C/007/0019, Outgoing File

Enclosed please find the Division's Decision Document for Andalex Resources' incidental boundary change for the federal Summit Tract (an additional 72.32 acres). The state permit also includes 20 acres of a fee lease (Mathis lease) at the Centennial Mine that increases the permit area by 92.32 acres. The request includes longwall development mining by a continuous miner in the Aberdeen Mine in the Aberdeen (Castlegate A) seam. All of the surface is private.

Mining in this area is deep to a depth of about 2,800 feet. Due to the fact that this is so deep, a joint monitoring study is being conducted by the University of Utah, the Bureau of Land Management, Agapito Associates, and Andalex Resources, Inc.

The permit has been conditioned that no mining can occur in the Summit Tract until the Secretary signs the Mining Plan Approval. If you have any questions, please call me, or Pamela Grubaugh-Littig.

Sincerely,

Lowell P. Braxton  
Director

Enclosures

cc: Mike Glasson, Andalex Resources, Inc.  
Jim Kohler, BLM  
Price Field Office

O:\007019.CEN\FINAL\Permit\DECIDOC\summittract04.doc

**UTAH DIVISION OF OIL, GAS AND MINING  
STATE DECISION DOCUMENT**

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Mathis /Summit Lease Tract  
C/007/0019  
Carbon County, Utah

September 3, 2004

**CONTENTS**

- \* Administrative Overview
- \* Location Map
- \* Permitting Chronology
- \* Findings
- \* Permit
- \* Technical Analysis
- \* CHIA
- \* Environmental Assessment
- \* BLM Lease Document, September 1, 2004
- \* Concurrence Letters
- \* AVS Memo - Section 510(c) finding, dated September 3, 2004

## ADMINISTRATIVE OVERVIEW

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Mathis/Summit Lease Tract  
C/007/0019  
Carbon County, Utah

September 3, 2004

### PROPOSAL

Andalex Resources, Inc. (ARI) has proposed to add 92.32 acres as an incidental boundary change (Federal Lease UTU-79975 [Summit Tract] - 72.32 acres and 20 acres of the Mathis fee lease) at the Centennial Mine. The request includes longwall development mining by a continuous miner in the Aberdeen Mine in the Aberdeen (Castlegate A) seam. All of the surface is private.

Mining in this area is deep to a depth of about 2800 feet. Due to the fact that this is so deep, a joint monitoring study is being conducted by the University of Utah, the Bureau of Land Management, Agapito Associates and Andalex Resources, Inc.

### BACKGROUND

The Mining and Reclamation Plan (MRP) for the Centennial Project was approved by the Office of Surface Mining in November of 1981 and by the Division of Oil, Gas and Mining (DOG M) in January of 1982. The originally approved MRP consisted of 2,240 acres of private and federal coal leases. On May 20, 1986, ARI was issued a permit by DOGM for a 120-acre federal emergency lease. On March 2, 1987, a new five-year permanent program permit was issued incorporating the emergency lease, for a total permitted acreage of 2,360 acres.

In October of 1981, Federal lease numbers U-010581, SL-063058 and SL-027304 were modified by the Bureau of Land Management to include an additional 436 acres. In October of 1987, Federal lease numbers U-010581, SL-063058 and SL-027304 were modified by the Bureau of Land Management to include additional acreages. In March of 1988, ARI requested that these three lease modifications be incorporated into the permitted area. In August of 1988, ARI also requested that one additional 320 acre federal lease (U-05067) and one 240 acre fee lease be added to the permitted area - the permit was revised to include these leases on May 4, 1989. On April 8, 1991, a permit revision was approved which incorporated Federal Lease UTU-66060 also known as the Graves Lease into the permit area. On August 11, 1997 Andalex Resources, Inc. added only the Centennial seam of the AEP lease (UTU-69600) to the permitted area.

On July 7, 1994, the Aberdeen Seam of the AEP lease was permitted to do longwall mining. ARI operated the three mines, the Pinnacle, Apex and Aberdeen, in the Gilson, Lower Sunnyside and Aberdeen seams, respectively until recently. The longwall ceased operations in the Aberdeen Mine on March 15, 2001 and was moved to the West Ridge Mine.

The approval of the 240-acres of the Mathis tract (fee land and fee coal) was approved on October 25, 2002 as an incidental boundary change for mining by continuous miners in the Aberdeen Mine.

This incidental boundary request for the addition of approximately 72.32 acres in the Summit Creek lease (UTU-79975) and approximately 20 acres in the Mathis fee lease includes longwall development mining by a continuous miner in the Aberdeen Mine in the Aberdeen (Castlegate A) seam. All of the surface ownership is private.

Mining in this area is deep to a depth of about 2800 feet. Due to the fact that this is so deep, a joint monitoring study is being conducted by the University of Utah, the Bureau of Land Management, Agapito Associates, Inc. and Andalex Resources, Inc.

Tonnage from the Summit Tract lease is expected to be about 1.5 million tons per year.

### **ANALYSIS**

No additional surface disturbance is proposed in relation to this incidental boundary change into the Summit Tract. All mining will be done by a continuous miner as part of the longwall development for the Aberdeen Mine in the Aberdeen seam. An Environmental Assessment has been prepared which indicates that mining in the Summit Tract lease will have no significant impact to the environment or the public (BLM EA No.UT-070-2003-48, dated April 2004).

### **RECOMMENDATION**

Andalex Resources Inc. has demonstrated that mining as part of this incidental boundary change can be done in conformance with the Surface Mining Control and Reclamation Act, and the corresponding Utah Act and performance standards. The Bureau of Land Management approved the Summit Tract federal lease and concurs with the decision to allow mining at this time, see recommendation for approval of the Resource Recovery and Protection Plan, dated August 12, 2004.

It is, therefore, recommended that approval be given for the addition of 92.32 acres of the Summit Tract (72.32 acres) and Mathis fee lease (20 acres) to the permitted area.

## PERMITTING CHRONOLOGY

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Mathis/Summit Lease Tract  
C/007/0019  
Carbon County, Utah

September 3, 2004

- May 5, 2004 Andalex Resources, Inc. submits the incidental boundary change application for the Summit Lease Tract at the Centennial mine.
- May 24, 2004 Determination by OSM that this permitting action is a mining plan modification.
- June 18, 2004 Division deficiency review sent to Andalex Resources, Inc.
- June 24, 2004 BLM holds lease sale for Summit Lease Tract.
- June 30, 2004 BLM accepts bid from Andalex Resources, Inc.
- July 2, 2004 Andalex Resources, Inc. submits additional information.
- July 29, 2004 Division completes technical review of the application.
- August 12, 2004 BLM recommends approval of the R2P2.
- September 1, 2004 BLM issued lease for Summit Tract
- September 3, 2004 Division issues permit with a condition that mining may not commence until Mining Plan Approval is received from Secretary for this permitting action.
- September 3, 2004 Division forwards State Decision Document to Office of Surface Mining Reclamation and Enforcement for concurrence and Secretarial signature.

## FINDINGS

Andalex Resources, Inc.  
Centennial Project  
Incidental Boundary Change  
Mathis/Summit Lease Tract  
C/007/0019  
Carbon County, Utah

September 3, 2004

1. The revised plan and the permit application are accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the approved Utah State Program (the "Act") have been complied with (R645-300-133.100). See attached Technical Analysis dated July 27, 2004.
2. No additional surface reclamation is required since the additional permit area will be mined as an underground extension of the existing mine. There will be no new surface facilities (R645-300-133.710).
3. The assessment of the probable cumulative impacts of all anticipated coal mining and reclamation activities in the general area on the hydrologic balance has been conducted by the regulatory authority and no significant impacts were identified. The Mining and Reclamation Plan (MRP) proposed under the application has been designed to prevent damage to the hydrologic balance in the permit area and in associated off-site areas (R645-300-133.400 and UCA 40-10-11 {2}{c}) (See Cumulative Hydrologic Impact Analysis [CHIA], updated September 3, 2004).
4. The proposed lands to be included within the permit area are:
  - a. not included within an area designated unsuitable for underground coal mining operations (R645-300-133.220) ;
  - b. not within an area under study for designated lands unsuitable for underground coal mining operations (R645-300-133.210) ;
  - c. not on any lands subject to the prohibitions or limitations of 30 CFR 761.11 {a} (national parks, etc.), 761.11 {f} (public buildings, etc.) and 761.11 {g} (cemeteries);
  - d. not within 100 feet of the outside right-of-way of a public road (R645-300-133.220);
  - e. not within 300 feet of any occupied dwelling (R645-300-133-220).

5. The regulatory authority's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800) (R645-300-133.600). See attached letters from State Historic Preservation Officer (SHPO) dated June 15, 1988 and July 7, 1994. The acreage proposed in this incidental boundary change are not located within areas where cultural resources will be found.
6. The applicant has the legal right to enter and complete mining activities through a federal coal lease issued by the Bureau of Land Management (See attached lease UTU-79975 effective September 1, 2004) (R645-300-133.300).
7. A 510(c) report has been run on the Applicant Violator System (AVS), which shows that: prior violations of applicable laws and regulations have been corrected; neither Andalex Resources Inc., or any affiliated company, are delinquent in payment of fees for the Abandoned Mine Reclamation Fund; and the applicant does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (R645-300-133.730). (See attached memo dated September 3, 2004).
8. Underground mining operations to be performed under the permit will not be inconsistent with other operations anticipated to be performed in areas adjacent to the proposed permit area. The closest operating mine is the Dugout Mine.
9. The applicant has posted a surety bond for the Centennial Mines Complex in the amount of \$1,080,839.00. (Bond #SU34593 in the amount of \$381,839 and bond #SU1354086 in the amount of \$699,000 both issued by Utica Mutual Insurance (total bond amount is \$1,080, 839). No additional surety will be required, since there is no additional surface disturbance proposed (R645-300-134).
10. No lands designated as prime farmlands or alluvial valley floors occur on the permit area (R645-302-313.100) (R645-302-321.100).
11. The proposed postmining land-use of the permit area is the same as the pre-mining land use and has been approved by the regulatory authority and the surface land management agency, (See R645-301- 400)
12. The regulatory authority has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program.
13. The proposed operation will not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats (R645-300-133.500). (See letter from US Fish and Wildlife Service, dated September 1, 2004).
14. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with (R645-300-120). This incidental boundary change

was an amendment to the mining and reclamation plan and did not require four weeks of publication.

15. No existing structures will be used in conjunction with mining of the underground lease addition other than those constructed in compliance with the performance standards of R645-301 and R645-302 (R645-300-133.720).

---

Permit Supervisor

---

Permit Supervisor

---

Associate Director, Mining

---

Director

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

This permit, C/007/0019, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGM) to:

**Andalex Resources, Inc.**  
**P. O. Box 902**  
**Price, Utah 84501**  
**(801) 637-5385**

for the Centennial Project. Andalex Resources Inc. is the lessee of federal coal leases SL-027304, SL-063058, U-010581, U-05067, U-52341, UTU-66060 and U-69600, and UTU-79975 and the lessee of fee-owned parcels, Mathis fee lease, Zion's fee lease and the Sunedco fee lease. A performance bond is filed with the DOGM in the amount of \$1,080,839.00, payable to the state of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSMRE). DOGM must receive a copy of this permit signed and dated by the permittee.

- Sec. 1 STATUTES REGULATIONS** - This permit is issued pursuant to the Utah Coal Mining and Reclamation Act of 1979, Utah Code Annotated (UCA) 40-10-1 et seq, hereafter referred to as the Act.
- Sec. 2 PERMIT AREA** - The permittee is authorized to conduct coal mining and reclamation operations on the following described lands within the permit area at the Centennial Mines Complex situated in the state of Utah, Carbon County, and located:

**Township 13 South, Range 11 East, SLBM**

- Section 4: S1/2;  
Section 5: All;  
Section 6: All;  
Section 7: All;  
Section 8: All;  
Section 9: N1/2, W1/2SW1/4, NE1/4SW1/4, N1/2SE1/4;  
Section 17: N1/2, NE1/4SE1/4, N1/2NW1/4SE1/4, N1/2NE1/4 SW1/4,  
NE1/4NW1/4SW1/4, W1/2NW1/4SW1/4; and  
Section 18: N1/2N1/2, SW1/4NE1/4, NW1/4SE1/4NE1/4, E1/2 SE1/4NE1/4,  
E1/2NE1/4SE1/4 and Lot 2, NE1/4SW1/4 (a portion containing

1.45 acres, more or less.), and a portion of  
NE1/4NE1/4SE1/4NW1/4 containing 1.5 acres, more or less.

**Township 13 South, Range 10 East, SLBM**

Section 1: All;  
Section 12: All;  
Section 13: Lot 1 (Portions of BLM ROW64158).

**Township 12 South, Range 11 East, SLBM**

Section 31: Lots 3-6 and Lots 12-22; and  
Section 32: W1/2SW1/4, SW1/4NW1/4.

**Township 12 South, Range 10 East, SLBM**

Section 36: S1/2S1/2, S1/2N1/2S1/2

**New Federal Summit Creek Lease UTU-79975**

Beginning at the NW corner of Section 31 (T12S, R11E)  
thence S 00°24'W 2675.8' ;  
thence S 61°52'E 743.0' to point of beginning;  
thence due East 3867.5' to the East section line of said Section 31;  
thence due South 735.0' along the East section line of said Section 31;  
thence N 61°62'W 1553.2';  
thence due South 1334.3' to the Southeast corner of Lot 11;  
thence N 61°52'W 2832.3' to point of beginning.

Beginning at the NW corner of Section 32 (T12S, R11E)  
thence due South 592.0' along the West section line of said Section 32 to point of  
beginning;  
thence due East 1320';  
thence due South 747.6';  
thence due West 1320';  
thence due North 747.6' along the West section line of said Section 32 to point of  
beginning.  
Containing 72.32 acres, more or less.

This legal description is for the permit area of the Centennial Mines Complex. The permittee is authorized to conduct coal mining and reclamation operations connected with mining on the foregoing described property subject to the conditions of the leases, the approved mining plan, including all conditions and all other applicable conditions, laws and regulations.

- Sec. 3 COMPLIANCE** - The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State Program.
- Sec. 4 PERMIT TERM** - This permit expires on January 6, 2007.
- Sec. 5 ASSIGNMENT OF PERMIT RIGHTS** - The permit rights may not be transferred assigned or sold without the approval of the Division Director. Transfer, assignment or sale of permit rights must be done in accordance with applicable regulations, including but not limited to 30 CFR 740.13 {e} and R645-303-300.
- Sec. 6 RIGHT OF ENTRY** - The permittee shall allow the authorized representative of the Division, including but not limited to inspectors, and representatives of the Office of Surface Mining Reclamation and Enforcement (OSM), without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:
- (a) Have the rights of entry provided for in 30 CFR 840.12, R645-400-220, 30 CFR 842.13 and R645-400-110;
  - (b) Be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 and R645-400-200 when the inspection is in response to an alleged violation reported to the Division by the private person.
- Sec. 7 SCOPE OF OPERATIONS** - The permittee shall conduct coal mining and reclamation operations only on those lands specifically designated as within the permit area on the maps submitted in the approved plan and approved for the term of the permit and which are subject to the performance bond.
- Sec. 8 ENVIRONMENTAL IMPACTS** - The permittee shall take all possible steps to minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of the permit, including, but not limited to:
- (a) Any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and the results of the noncompliance;
  - (b) Immediate implementation of measures necessary to comply; and
  - (c) Warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.

- Sec. 9 DISPOSAL OF POLLUTANTS** - The permittee shall dispose of solids, sludge, filter backwash or pollutants in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable state or federal law.
- Sec. 10 CONDUCT OF OPERATIONS** - The permittee shall conduct its operations:
- (a) In accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and
  - (b) utilizing methods specified as conditions of the permit by the Division in approving alternative methods of compliance with the performance standards of the Act, the approved Utah State Program and the Federal Lands Program.
- Sec. 11 EXISTING STRUCTURES** - As applicable, the permittee will comply with R645-301 and R645-302 for compliance, modification, or abandonment of existing structures.
- Sec. 12 RECLAMATION FEE PAYMENTS** - The operator shall pay all reclamation fees required by 30 CFR Part 870 for coal produced under the permit, for sale, transfer or use.
- Sec. 13 AUTHORIZED AGENT** - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.
- Sec. 14 COMPLIANCE WITH OTHER LAWS** - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq,) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.
- Sec. 15 PERMIT RENEWAL** - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit area in accordance with the Act, the approved Utah State Program and the Federal Lands Program.
- Sec. 16 CULTURAL RESOURCES** - If during the course of mining operations, previously unidentified cultural resources are discovered, the permittee shall ensure that the site(s) is not disturbed and shall notify the Division of Oil, Gas, and Mining. The Division, after coordination with OSM, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by the Division within the time frame specified by the Division.

**Sec. 17 APPEALS** - The permittee shall have the right to appeal as provided for under R645-300-200.

**Sec. 18 SPECIAL CONDITIONS** - There are special conditions associated with this permitting action as described in attachment A.

The above conditions (Secs. 1-18) are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of the Division and the permittee at any time to adjust to changed conditions or to correct an oversight. The Division may amend these conditions at any time without the consent of the permittee in order to make them consistent with any federal or state statutes and any regulations.

**THE STATE OF UTAH**

By: \_\_\_\_\_

Date: \_\_\_\_\_

I certify that I have read, understand and accept the requirements of this permit and any special conditions attached.

\_\_\_\_\_  
**Authorized Representative of  
Permittee**

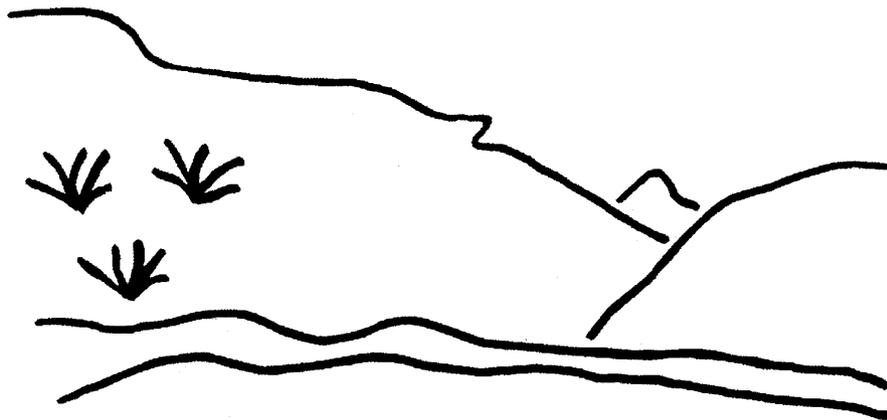
Date: \_\_\_\_\_

Attachment A

**SPECIAL CONDITIONS**

1. Andalex Resources, Inc. will submit water quality data for the Centennial Project in an electronic format through the Electronic Data Input web site, <http://hlunix.hl.state.ut.us/cgi-bin/appx-ogm.cgi>.
  
2. Andalex Resources, Inc. may not commence mining in lease UTU- 79975 until Mining Plan Approval is signed by the Secretary of the Interior.

# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

Centennial Project  
Mathis/Summit Creek Incidental Boundary Change (IBC)  
C/007/0019, Task ID # 1979  
Technical Analysis  
July 27, 2004

## TABLE OF CONTENTS

<b>TECHNICAL ANALYSIS</b> .....	1
<b>INTRODUCTION</b> .....	3
<b>GENERAL CONTENTS</b> .....	5
VIOLATION INFORMATION.....	5
RIGHT OF ENTRY .....	5
LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS.....	6
MAPS AND PLANS .....	6
<b>ENVIRONMENTAL RESOURCE INFORMATION</b> .....	7
HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION.....	7
VEGETATION RESOURCE INFORMATION .....	7
FISH AND WILDLIFE RESOURCE INFORMATION .....	8
LAND-USE RESOURCE INFORMATION.....	8
GEOLOGIC RESOURCE INFORMATION .....	9
HYDROLOGIC RESOURCE INFORMATION .....	9
Probable Hydrologic Consequences Determination .....	9
<b>OPERATION PLAN</b> .....	11
MINING OPERATIONS AND FACILITIES.....	11
EXISTING STRUCTURES: .....	11
RELOCATION OR USE OF PUBLIC ROADS.....	11
COAL RECOVERY .....	12
SUBSIDENCE CONTROL PLAN.....	12
Subsidence Control Plan .....	12
FISH AND WILDLIFE INFORMATION .....	13
Protection and Enhancement Plan .....	13
Endangered and Threatened Species .....	13
Bald and Golden Eagles.....	14
Wetlands and Habitats of Unusually High Value for Fish and Wildlife .....	14
VEGETATION.....	14
ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES .....	14
SPOIL AND WASTE MATERIALS .....	15
HYDROLOGIC INFORMATION .....	15
Groundwater Monitoring .....	15
Surface Water Monitoring .....	16
Water-Quality Standards And Effluent Limitations .....	16
SUPPORT FACILITIES AND UTILITY INSTALLATIONS.....	17
MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS.....	17
Monitoring and Sampling Location Maps .....	17
Affected Area Maps.....	17
Certification Requirements .....	18
<b>RECLAMATION PLAN</b> .....	19
GENERAL REQUIREMENTS .....	19
POSTMINING LAND USES .....	19
PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES...	20
CONTEMPORANEOUS RECLAMATION .....	20

## TABLE OF CONTENTS

---

The information provided in the current MRP adequately addresses the minimum requirements of the Reclamation Plan – Contemporaneous Reclamation section of the regulations.....	20
REVEGETATION.....	20
Revegetation: General Requirements .....	21
Revegetation: Timing.....	21
Revegetation: Mulching and Other Soil Stabilizing Practices.....	21
Revegetation: Standards For Success .....	21
MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS .....	21
Reclamation Monitoring And Sampling Location Maps.....	21
Reclamation Treatments Maps .....	22
Revegetation and Restoration of Soil Productivity.....	22
BONDING AND INSURANCE REQUIREMENTS.....	22
Determination of Bond Amount .....	22
CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA).....	23

## TECHNICAL ANALYSIS

---

### TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977(SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings, which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference, which describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

Page 2  
C/007/0019  
Task ID #1979  
July 27, 2004

**TECHNICAL ANALYSIS**

---

---

## INTRODUCTION

### INTRODUCTION

On May 7, 2004 the Division of Oil, Gas, & Mining (Division) received an application for an Incidental Boundary Change (IBC) for the Centennial Project / Tower Mine (task ID #1919). The application was returned to the Mine with deficiencies on June 18, 2004, and resubmitted to the Division on July 2, 2004 (task ID #1979). The IBC is located in the Mathis tract (20 acres) and Summit Creek Lease areas (72.32 acres), respectively. The leases are located on the Deadman Canyon quadrangle in Township 12 South Ranges 10 and 11 East, Sections 31 and 36. The following review addresses only regulations germane to the proposed modifications to the currently approved Mine Reclamation Plan (MRP). The proposed change is for underground mining only, which will take place beneath 2,600 to 3,000 feet of cover; no additional surface facilities are proposed. Surface effects such as subsidence and effects to the hydrologic regime are anticipated to be negligible. Deficiencies cited earlier have been adequately addressed. Incorporation into the currently approved MRP is recommended.

Page 4  
C/007/0019  
Task ID #1979  
July 27, 2004

## INTRODUCTION

---

---

## GENERAL CONTENTS

---

## GENERAL CONTENTS

### VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

#### **Analysis:**

Information for the last three years of violation history was submitted for the Applicant and all coal mining reclamation operations owned or controlled by the Applicant or by any person who owns or controls the Applicant.

#### **Findings:**

The information provided adequately addresses the minimum requirements of the General Contents – Violation Information section of the regulations.

### RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

#### **Analysis:**

Appendix J of the MRP contains approvals of lease agreements and other approved activities. Documentation showing approval to enter the Mathis Tract Fee Lease was provided for inclusion into Appendix J. Documentation showing the right of entry for UTU-79975 Federal Lease will be provided to the Division for inclusion in Appendix J upon receipt.

#### **Findings:**

Information showing the right of entry into Federal Lease UTU-79975 still needs to be provided to the Division. The applicant has committed to provide the information for inclusion into Appendix J upon receipt. The application can be conditionally approved upon receipt of the right of entry information into Appendix J.

## **LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS**

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

### **Analysis:**

The applicant submitted the legal descriptions of the lease areas that are to be included into the permit area. It should be clarified that these descriptions are not necessarily the entire lease areas, but only the portions that are within the permit area. Descriptions found on page 1-21 of the submittal for federal lease UTU-79975 and the additions to the Mathis Tract Fee lease were checked and found to be accurate with the submitted maps.

### **Findings:**

The information submitted adequately addresses the minimum requirements of the General Contents – Legal Description and Status of Unsuitability Claims section of the regulations.

## **MAPS AND PLANS**

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

### **Analysis:**

The vegetation map is identified as plate 19A. A portion of the Right Fork of Summit Creek is included in the proposed IBC. The wildlife distribution map is identified as plate 34. The map depicts the location of raptor nests at that point in time. A current raptor inventory is included in the application as appendix D. The Mule Deer, Elk and Sage Grouse ranges are identified on plate 34 and are included in the legend.

### **Findings:**

The information provided adequately addresses the minimum requirements of the General Contents – Maps and Plans section of the regulations.

---

## ENVIRONMENTAL RESOURCES INFORMATION

---

### 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:**

Historic and Archeological resource information is provided for on page 4-1 of the application. Additional information is included on pages 4-2,3,4 and Appendix C of the approved MRP. Since the 92-acre parcel is located 2,600 feet above the current mine workings and is an extension of the current mine workings there should be no impacts to the surface land resources.

#### **Findings:**

The information provided in the application and approved MRP adequately addresses the minimum requirements of the Historic and Archeological Resource Information section of the regulations.

### VEGETATION RESOURCE INFORMATION

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

#### **Analysis:**

The vegetation resource information is provided for in chapter three of the MRP. Text changes for this IBC include page 3-1 of the Biology section of the application. The vegetation map is identified as plate 19A. The vegetation communities for the mine plan area include Mountain –Brush, Desert-Shrub, Pinyon-Juniper Woodland, Sagebrush-Grass, Conifer-Aspen, and Minor streamside vegetative types that cover the entire mine plan area. The vegetation community for this IBC is predominately Sagebrush-Grass and Aspen.

The application includes a list of possible threatened, endangered and candidate plant species identified in the U. S. Fish and Wildlife Service current listing for Carbon County as appendix M.

**Findings:**

The information provided adequately addresses the minimum requirements of the Vegetation Resource Information section of the regulations.

**FISH AND WILDLIFE RESOURCE INFORMATION**

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

**Analysis:**

The Fish and Wildlife resource information is addressed on pages 3-2, 3-3, 3-11 and provided for in appendices A, D and M of the application.

**Findings:**

The information provided adequately addresses the minimum requirements of the Fish and Wildlife Resource Information section of the regulations.

**LAND-USE RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.22; R645-301-411.

**Analysis:**

The Land Use resource information is provided for on page 4-1 of the application. The 93.32 acre parcel is located 2,600 feet above the current mine workings. As such impacts to the surface land resources should be negligible.

The area is currently used for grazing, recreation and wildlife. Section 645-301-411.110 on page 4-1 indicates that Deadman, Straight and Hoffman Canyons would fall into three categories: 1) fish and wildlife habitat, 2) recreation lands and 3) range lands. According to the application the land has also historically been used for coal mining. By the early 1900's the majority of the Book Cliffs coal field had been prospected. Knight-Ideal, Zion, Olsen, and Sutton were mines that produced coal from the Gilson and Aberdeen coal seams. An additional prospect in the Sunnyside seam produced 1,400 tons of coal in 1964.

---

## ENVIRONMENTAL RESOURCES INFORMATION

---

### Findings:

The information provided adequately addresses the minimum requirements of the Land-Use Resource Information section of the regulations.

## GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

### Analysis:

The information provided in the currently approved Mine Plan adequately addresses the geology in the proposed Mathis / Summit Creek IBC. The IBC areas are all within the Flagstaff Formation. Strike and dip information previously missing from Plate 21 has been provided.

### Findings:

The information provided adequately addresses the minimum requirements of the Environmental Resource Information - Geologic Resource Information section of the regulations.

## HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 701.5, 784.14; R645-100-200, -301-724.

### Probable Hydrologic Consequences Determination

A separate Probable Hydrologic Consequences Determination (PHC) was prepared by Petersen Hydrologic (Inc.) for Adalex Resources, Inc. specifically addressing the Summit Creek and North Mathis tracts. The current IBC addresses only a small fraction of those two tracts. The determination is consistent with other findings along the Book Cliffs escarpment and Wasatch Plateau. Adverse impacts to the hydrologic balance in the area are extremely unlikely based on the combination of the following: 1) extensive cover (2,600 – 3,000 ft.); 2) extensive barrier walls between panels; 3) shallow groundwater systems and surface-water flows responding rapidly to climate and season; and 4) deep groundwater systems that are not in hydraulic communication with shallow recharge sources or shallow groundwater systems. The Division agrees with this assessment.

Using local streams and springs the PHC illustrates the shallow groundwater systems and surface-water flows respond rapidly to climate conditions and season. Specific R645-301

**ENVIRONMENTAL RESOURCE INFORMATION**

---

regulations that were addressed in the PHC include -728.200 (water quality and quantity), -728.310 (adverse impacts to hydrologic balance), -728.310 (acid- or toxic-forming materials), -728.331 (sediment yields), -728.333 (stream flow alteration), -728.334 (groundwater and surface-water availability), and -728.350 (affects to State-appropriated water).

To address concerns cited in the June 18, 2004 Technical Analysis, Andalex commits to replace any State-appropriated water should it become contaminated, diminished, or interrupted in section 728.350 of the PHC (Appendix L). To aid in the monitoring of State-appropriated water, pond site 31-1, which has an associated water right was added to the water-monitoring program. The pond will be monitored on a quarterly basis documenting the presence or lack of water. This will include and estimate of the quantity of water in the pond and measurements of the rate of inflow to the pond and the rate of outflow from the pond. The commitment and addition of monitoring the pond adequately addresses concerns cited earlier.

**Findings:**

The information provided adequately addresses the minimum requirements of the Hydrologic Resources Information section of the State regulations.

## OPERATION PLAN

---

### OPERATION PLAN

#### MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

##### **Analysis:**

The Permittee proposes to add 93.32 acres as an Incidental Boundary Change to the Aberdeen Mine. Andalex Resources needed to add the IBC to accommodate a new longwall panel setup. The IBC would not significantly change the mine plan. There are no surface facilities associated with the IBC.

##### **Findings:**

The information provided adequately addresses the minimum requirements of the Operation Plan – Mining Operations and Facilities section of the regulations.

#### EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

##### **Analysis:**

There are no existing structures associated with the IBC that could be affected by mining.

##### **Findings:**

The information provided adequately addresses the minimum requirements of the Operation Plan – Existing Structures section of the regulations.

#### RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

## OPERATION PLAN

---

### Analysis:

There are no public roads associated with the IBC and no roads will need to be relocated.

### Findings:

The information provided adequately addresses the minimum requirements of the Operation Plan – Relocation or Use of Public Roads section of the regulations.

## COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

### Analysis:

Andalex Resources needs the IBC in order to set up longwall panels to increase coal production. The coal to be recovered is at a depth of 2,600 to 3,000 ft. The IBC is consistent with the mine plan to maximize coal recovery in the permit area.

### Findings:

The information provided adequately addresses the minimum requirements of the Operation Plan – Coal Recovery section of the regulations.

## SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

### Analysis:

#### **Subsidence Control Plan**

In 2003 the Division fielded a complaint by a local landowner that their spring had dried up due to mining in the area. The Division's finding of no surface impacts due to mining was based, in part, on the Subsidence Control monitoring stations located in the area. However, subsidence control stations are not always ideally located. Information useful for evaluating surface subsidence would be to combine the Subsidence Monitoring Stations map with the longwall mining plan information.

---

## OPERATION PLAN

---

Plate 25 – Subsidence Monitoring Stations, has been modified to make the topography legible and include both the current mining and mining projections of longwalls in the Aberdeen seam (information found on Plate 29). The combination of having subsidence monitoring stations, topography, and the location of longwall panels on one map will provide a useful tool to ground-truth any potential areas of subsidence.

The existing subsidence control plan is sufficient to adequately monitor the addition of the IBC area. The addition of 93.32 acres would not have a significant impact on subsidence.

### **Findings:**

The information provided adequately addresses the minimum requirements of the Operation Plan – Subsidence Control Plan section of the State regulations.

## **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 protection and enhancement plan is addressed in appendix A of the approved MRP. The application states that “the Mathis/Summit Creek Incidental Boundary Change is simply an extension of our underground mine workings under roughly 2,600 to 3,000 feet of cover. Therefore there should be no effect to the surface biology of the area. The application also includes a commitment to develop a mitigation plan with the Division of Wildlife Resources should problems occur.

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

The application includes a list, (appendix M), of possible threatened, endangered and candidate plant and wildlife species identified in the U. S. Fish and Wildlife Service current listing for Carbon County. There are no threatened or endangered plant species known for the area according to information from Bob Thompson of the Forest Service and the Division of Wildlife Resources survey. Of the 10 species listed for Carbon County, only one, the bald eagle, could potentially occur in the permit area. However, the occurrence is most likely to be migration through the area rather than nesting or roosting. Most threatened or endangered species that could occur in Carbon County occur at lower elevations than the mine and have no habitat in the proposed permit area expansion.

## OPERATION PLAN

---

In addition to the species discussed in the application, there is also a potential to affect the threatened and endangered fish of the upper Colorado River basin through surface water depletion. The mine has potential, through water depletions, of adversely affecting four listed threatened and endangered fish species of the upper Colorado River drainage. The Fish and Wildlife Service requires mitigation when water depletions exceed 100 acre-feet annually. According to the information in the application 47.61 acre feet/year net gain of water are provided to the upper Colorado River basin. Calculations are provided in table III-12.

### **Bald and Golden Eagles**

Bald Eagles do not nest in the area. They could possibly be seen migrating through the area during the winter months.

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

There are no known wetlands within the proposed IBC.

### **Findings:**

The information provided adequately addresses the minimum requirements of the Operation Plan – Fish and Wildlife Information section of the regulations.

## **VEGETATION**

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

### **Analysis:**

Vegetation should not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

### **Findings:**

The information provided in the current MRP adequately addresses the minimum requirements of the Operation Plan - Vegetation section of the regulations.

## **ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES**

Regulatory Reference: 30 CFR Sec. 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

## OPERATION PLAN

---

### Analysis:

No new roads are proposed with the addition of the IBC. No additional information is required.

### Findings:

The information provided adequately addresses the minimum requirements of the Operation Plan – Road Systems and Other Transportation Facilities section of the regulations.

## SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

### Analysis:

The IBC will not alter the existing spoil and waste materials program.

### Findings:

The information provided in the currently approved MRP adequately addresses the minimum requirements of the Operation Plan – Spoils and Waste Materials section of the regulations.

## HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### Analysis:

#### Groundwater Monitoring

No springs or seeps were sampled during the 2001 and 2003 surveys, which illustrates the dry conditions currently being experienced in the region. This is indicative of the shallow groundwater systems and surface-water flows responding rapidly to climate and season. During

## OPERATION PLAN

---

wet climatic conditions, groundwater naturally discharges from the Flagstaff and North Horn Formation in the area, although in small quantities for short periods of time. Seeps and springs in the area show rapid response to both season and climate, suggesting short flow paths and shallow circulation depths. This is illustrated by the lack of data for the majority of water monitoring sites in the area. Due to dry conditions, the little moisture that is received is critical to livestock and wildlife. Numerous water rights exist on stock ponds that are fed by springs or streams. Monitoring site 31-1, a stock pond has been added to the water-monitoring program to document any loss of water in the event subsidence does occur in the area.

A total of two (2) additional springs are proposed for monitoring as part of the current amendment. Spring B261 has a total of five (5) samples collected from 1996 through 2001. Spring B362 has only one (1) sample (May 2001) collected from 1997 through 2002. The existing water quality information for springs B261 and B362 has been submitted electronically to the Division database.

Table 3 of the Peterson Hydrologic report, that was previously absent, has been provided.

### **Surface Water Monitoring**

During sampling in both 2001 and 2003 no springs, seeps, or streams were found to be flowing, likely demonstrating the current drought conditions and the ephemeral nature of the streams in the area. Of the four (4) proposed additional surface water monitoring sites, two (AC-1 and SC-1) are new sites with no baseline data provided. It will be a few years before these two sites provide any useful information. Stream site B263 has been monitored since 1996 and has a total of 10 samples collected from 5/96 – 10/02. The existing data from site B263 has been input into the Division electronic database as requested. Pond 31-1 has an associated water right. The pond will be monitored for the presence or absence of water and also document any inflow or outflow from the pond.

### **Water-Quality Standards And Effluent Limitations**

Page 7-2 of the proposal has been modified to accurately reflect the number of UPDES sites under the permit as four (4). Figure IV-II has also been modified to reflect the correct information. This adequately addresses earlier deficiencies.

### **Findings:**

The information provided adequately addresses the minimum requirements of the Operation Plan – Hydrologic Information section of the State regulations.

## OPERATION PLAN

---

### SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

#### Analysis:

Andalex Resources will not construct any new surface facilities with the addition of the IBC area.

#### Findings:

The information provided adequately addresses the minimum requirements of the Operation Plan – Support Facilities and Utility Installations section of the regulations.

### MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

#### Analysis:

##### Monitoring and Sampling Location Maps

On Plate 21 – Surface Geology, has been modified to include the strike and dip numbers on the map.

Figure 5 - Surface and Ground Water Rights of the Vaughn Hansen Associates report has been modified to reflect the proper naming convention 'Water Rights Number'.

Figure IV-11 has been modified to include the following: 1) the IBC has been correctly identified as the Mathis/Summit Creek IBC; 2) the symbol designation of streams and springs/wells has been included; and 3) all four (4) UPDES sites have been identified. This adequately addresses earlier deficiencies.

##### Affected Area Maps

Plate I has been modified to include the new permit boundary with the addition of the IBC area. Plates 21, 22, 25, 29, 34, and Figures 4, 5, and 6 have been modified to include the proposed IBC in the permit boundary. This adequately addresses earlier cited deficiencies.

**OPERATION PLAN**

---

**Certification Requirements**

Dan Guy, a registered professional engineer, certified Plate 29. The Permitte has met the certification requirements.

**Findings:**

The information provided adequately addresses the minimum requirements of the Operation Plan – Maps, Plans, and Cross Sections of Mining Operations section of the State regulations.

---

## RECLAMATION PLAN

---

# RECLAMATION PLAN

## GENERAL REQUIREMENTS

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:

Since there are no surface facilities associated with the addition of 93.32 acres within the proposed IBC; no changes to the engineering portion of the reclamation plan are needed.

The reclamation plan will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

### Findings:

The information provided adequately addresses the minimum requirements of the Reclamation Plan – General Requirements section of the regulations.

## POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

### Analysis:

The reclamation plan will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

### Findings:

The information provided in the current MRP is adequately addresses the minimum requirements of the Reclamation Plan – Post-mining Land Uses section of the regulations.

## 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:

The reclamation plan will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity. The protection and enhancement plan is addressed in appendix A of the approved MRP. The application states that "the Mathis/Summit Creek Incidental Boundary Change is simply an extension of our underground mine workings under roughly 2,600 to 3,000 feet of cover. Therefore, there should be no effect to the surface Biology of the area. The application also includes a commitment to develop a mitigation plan with the Division of Wildlife Resources should problems occur.

#### Findings:

The information provided adequately addresses the minimum requirements of the Reclamation Plan – Protection of Fish, Wildlife, and Related Environmental Values section of the regulations.

### CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

#### Analysis:

Contemporaneous reclamation will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

#### Findings:

The information provided in the current MRP adequately addresses the minimum requirements of the Reclamation Plan – Contemporaneous Reclamation section 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.

## RECLAMATION PLAN

---

### Analysis:

#### **Revegetation: General Requirements**

Revegetation will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

#### **Revegetation: Timing**

Timing will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

#### **Revegetation: Mulching and Other Soil Stabilizing Practices**

These practices will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

#### **Revegetation: Standards For Success**

Standards for success will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

### Findings:

The information provided in the current MRP adequately addresses the minimum requirements of the Reclamation Plan - Revegetation section of the regulations.

## MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

### Analysis:

#### **Reclamation Monitoring And Sampling Location Maps**

Reclamation monitoring and sampling location maps will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

## RECLAMATION PLAN

---

### **Reclamation Treatments Maps**

Reclamation treatment maps will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity

### **Revegetation and Restoration of Soil Productivity**

Revegetation and restoration of soil productivity will not be affected by the addition of the Mathis/Summit IBC. There is no surface disturbance associated with this permitting activity.

### **Findings:**

The information provided in the current MRP adequately addresses the minimum requirements of the Reclamation Plan – Maps, Plans, and Cross Sections of Reclamation Operations section of the regulations.

## **BONDING AND INSURANCE REQUIREMENTS**

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

### **Analysis:**

#### **Determination of Bond Amount**

No changes to the surface facilities will result as a result of the addition of 93.32 acres for an incidental boundary change. No change in the reclamation cost estimate is necessary at this time.

### **Findings:**

The information provided adequately addresses the minimum requirements of the Reclamation Plan – Bonding and Insurance Requirements section of the regulations.

## **CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA)**

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

### **Analysis:**

The Division has evaluated the PHC provided by the Mine Operator and determined that the addition of the Mathis/Summit Creek IBC will not have an adverse affect on the cumulative hydrologic regime in the area based on the information provided and the analysis articulated above.

### **Findings:**

The information provided adequately addresses the minimum requirements of the Cumulative Hydrologic Impact Assessment section of the State regulations.

O:\007019.CEN\FINAL\TA\TA1979.doc



# United States Department of the Interior

OFFICE OF SURFACE MINING

Reclamation and Enforcement

P.O. Box 46667

Denver, Colorado 80201-6667

November 1, 2004

UT-0022

IN REPLY REFER TO:

Mr. Mike Glasson  
Environmental Coordinator  
Andalex Resources, Inc.  
P.O. Box 902  
Price, Utah 84501

Dear Mr. Glasson:

On October 25, 2004, the Department of the Interior approved a mining plan modification for Federal lease UTU-79975 at Andalex Resources, Inc.'s Centennial Mine. This mining plan action relates to Federal lands associated with the Utah Department of Natural Resources, Division of Oil, Gas, and Mining's State Final Findings and Supporting Documentation, Summit Lease Tract - Incidental Boundary Change, Andalex Resources, Inc. Centennial Mine, C/007/019 approved on September 3, 2004.

I have enclosed a copy of the mining plan approval document and associated map for this new mining plan. Please read the terms and conditions of the mining plan approval document carefully. Mining and reclamation operations must be conducted in accordance with both the Utah state permit and the approved mining plan.

The October 25, 2004, approval allows you to initiate coal mining operations in Federal lease UTU-79975 within the area of mining plan approval.

If you have any questions, please contact me at (303) 844-1400, extension 1500.

Sincerely,

Carl R. Johnston  
Natural Resource Specialist  
Utah Federal Lands Coordinator

enclosure

cc: BLM - Utah State Office  
BLM - Price Field Office  
Utah Department of Natural Resources  
OSM - Denver Field Division

TAKE PRIDE<sup>®</sup>  
IN AMERICA 