

MINING PLAN DECISION DOCUMENT

Cyprus Plateau Mining Corporation

Willow Creek Mine

Federal Leases UTU-73975, SL-046652, SL-048442-050115,

U-0146345, and U-0148779

Carbon County, Utah



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

Prepared August 1997

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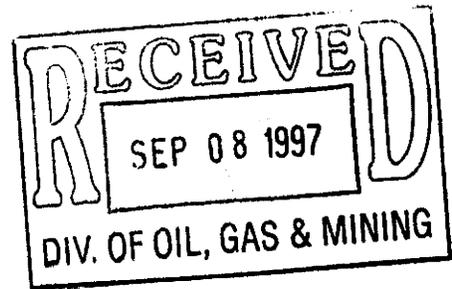
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Willow Creek Mine



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United States Department of the Interior

OFFICE OF SURFACE MINING
Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

UT-0071

IN REPLY REFER TO:

August 6, 1997

MEMORANDUM

TO: Director

THROUGH: Deputy Director

FROM: *James Fulton, Acting*
Regional Director, Western Regional Coordinating Center

SUBJECT: Recommendation for Approval of the Cyprus Plateau Mining Corporation's Willow Creek Mine Mining Plan action for Federal Leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779, Carbon County, Utah

I. Action Required

Please sign the enclosed memorandum to the Assistant Secretary, Land and Minerals Management, if you agree with the recommendation described below. Then forward the enclosed decision document to the Assistant Secretary for his decision to sign the mining plan approval document. If you are not in agreement with the recommendation, please advise me of your concerns.

II. Recommendation

I recommend approval of the Willow Creek Mine new mining plan for Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779. This is a new mining plan 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 Willow Creek Mine new mining plan is based on:

- (1) Cyprus Plateau Mining Corporation's (CPMC) 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 findings and recommendations of the Utah Division of Oil, Gas and Mining (DOGGM) regarding the PAP and the Utah State program.

The Assistant Secretary's approval of this new mining plan will authorize mining of approximately 66.13 metric (72.91 short) million tons of leased Federal coal. This mining plan approval is for 2,942 hectares (7,263 acres) as shown on the map included with this decision document. However, the recoverable leased Federal coal would be mined from only 1,439 hectares (3,554 acres) in seams A, B, C, D, and K at an average production rate of about 4.54 metric (5 short) million tons per year. The State's permit area at the Willow Creek Mine will contain about 5,937 hectares (14,670 acres). Mining is expected to continue for 20 years under State's Permit No. ACT/007/038 and this proposed mining plan action.

III. Background

The Willow Creek underground coal mine is about 10 miles north of Price in Carbon County, Utah. The mine began operations on non-Federal lands in September 1996. The mining operations use longwall mining methods.

IV. Review Process

The DOGGM reviewed the PAP under the Utah State program, the Federal lands program (30 CFR Chapter VII, Subchapter D), and the cooperative agreement (30 CFR § 944.30). Pursuant to the Utah State program and the cooperative agreement, DOGGM approved the permit revision on April 23, 1996.

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 the 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 in a memorandum dated June 2, 1997.

The U.S. Fish and Wildlife Service provided its biological opinion under Section 7 of the Endangered Species Act in a memorandum dated November 4, 1996, stating that an average annual depletion of 730 acre-feet projected to be caused by the proposed mining operations, is likely to jeopardize the continued existence of listed endangered fishes. FWS opined that this depletion from the Upper Colorado River Basin would result in destruction or modification of their critical habitat. FWS presented reasonable and prudent alternatives to avoid the likelihood of jeopardy to endangered fishes and to avoid destruction or adverse modification of their critical habitat. To offset these adverse effects, FWS required that CPMC make a one-time contribution to a fund at the National Fish and Wildlife Foundation, established pursuant to the Recovery Implementation Program for Endangered Species in the Upper Colorado River Basin. Accordingly, CPMC has made a contribution of \$9,519 to the fund.

The State Historic Preservation Officer (SHPO) concurred with the proposed mining plan action in a letter dated June 12, 1996.

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

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

I have determined that approval of this new mining plan will not have a significant impact on the quality of the human environment. The environmental analysis prepared by BLM, and OSM for coal lease applications 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 action and its alternatives. The FONSI and supporting environmental analyses are included in this decision document.

Publication of four consecutive weekly newspaper notices by CPMC in the Sun Advocate notified the public of the availability of the administratively complete PAP for review. The last publication date was October 12, 1995.

The DOGM determined that a bond for \$11,949,205 is adequate for the Utah Permit No. ACT/007/038 associated with this mining plan action. The bond is payable to the State and the United States.

A chronology of events related to the processing of the PAP is included with the decision document. The information in the PAP, and other information identified in the decision document, has been reviewed by DOGM staff in coordination with the OSM Project Leader.

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

- the PAP submitted by CPMC and updated through April 4, 1996,
- DOGM's State decision and findings provided to OSM under the cooperative agreement,
- the Environmental Assessments for coal lease applications,
- the FONSI of the proposed action and alternatives prepared by OSM,
- other documents prepared by DOGM, and
- correspondence developed during the review of the PAP.

Attachment



United States Department of the Interior



OFFICE OF SURFACE MINING

Reclamation and Enforcement

Washington, D.C. 20240

AUG 26 1997

MEMORANDUM

To: Assistant Secretary, Land and Minerals Management

From: Kathy Karpan, Director, Office of Surface Mining *K*

Subject: Recommendation for Approval of the Cyprus Plateau Mining Corporation's Willow Creek Mine Mining Plan Action for Federal Leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779, Carbon County, Utah

You may approve a mining plan for Federal leases under 30 U.S.C. §§ 207(c) and 1273(c). Please sign the attached mining plan approval document if you agree with the following:

Pursuant to 30 CFR Chapter VII, Subchapter D, I find that the proposed mining plan will meet all applicable laws and regulations. Therefore, I recommend approval of the Cyprus Plateau Mining Corporation's Willow Creek Mine new mining plan for Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779 pursuant to the Mineral Leasing Act of 1920, as amended.

My recommendation to approve the Willow Creek Mine mining plan action is based on:

- (1) Cyprus Plateau Mining Corporation's complete permit application package,
- (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 findings and recommendations of the Utah Division of Oil, Gas and Mining regarding the PAP and the Utah State program.

I am attaching the decision document upon which my recommendation is based.

Attachment

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

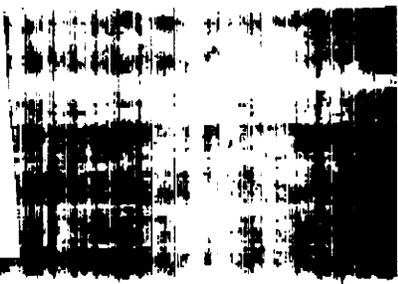
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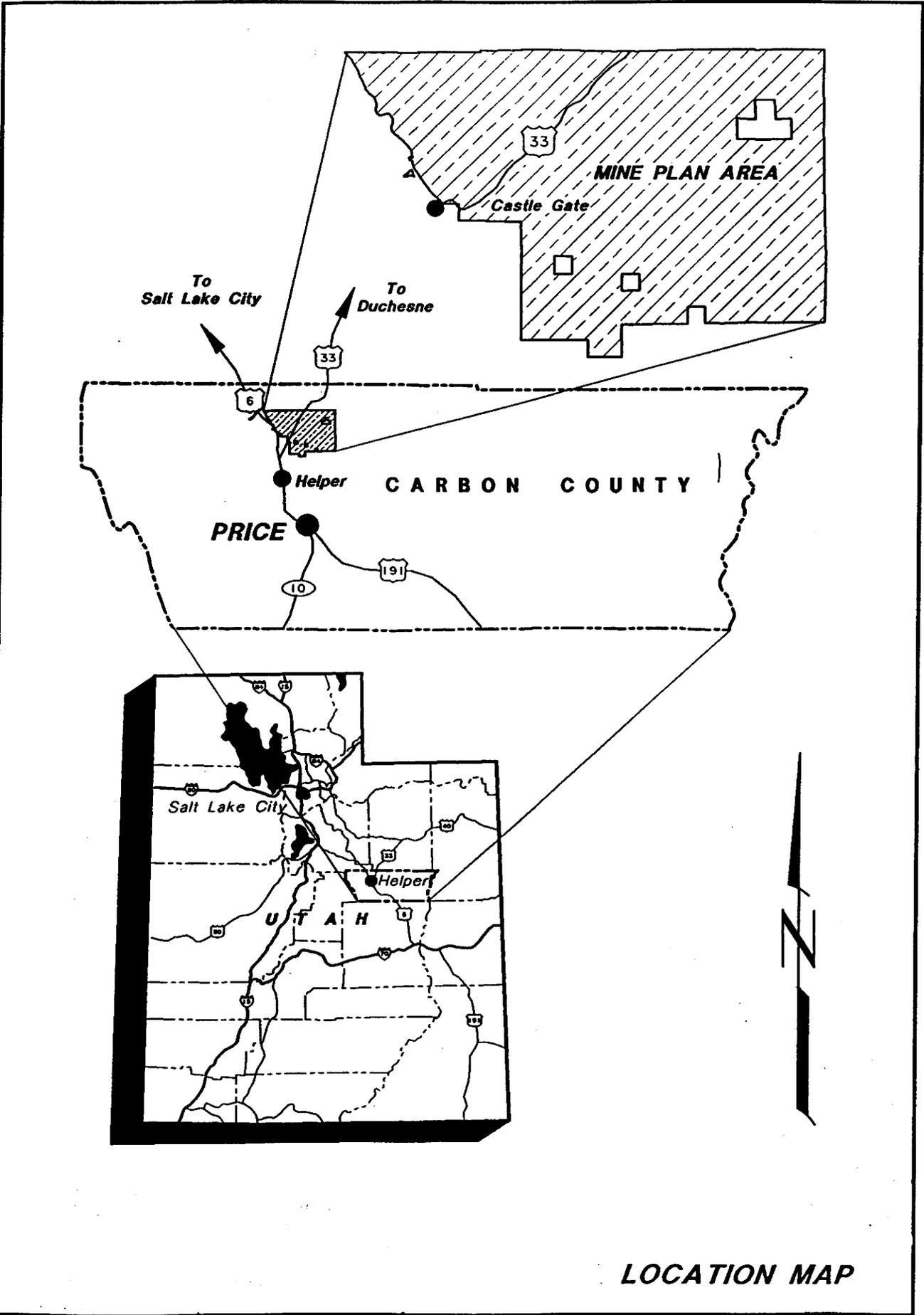
To D. SWICK From D. HUNT

Dept./Agency _____ Phone # _____

Fax # 303-844-1538

NGN 7540-01-917-7368 5099-101 GENERAL SERVICES ADMINISTRATION





LOCATION MAP

CHRONOLOGY

Willow Creek Mine
Federal Leases UTU-73975, SL-046652, SL-048442-050115, U-0146345,
and U-0148779

Mining Plan Decision Document

DATE	EVENT
May 5, 1995	Cyprus Plateau Mining Corporation (CPMC) submitted the permit application package (PAP) under the approved Utah State Program to the Utah Division of Oil, Gas and Mining (DOGM) for a permit revision for the Mine.
May 12, 1995	The Office of Surface Mining Reclamation and Enforcement (OSM) received the PAP.
October 12, 1995	CPMC published in the Sun Advocate the fourth consecutive weekly notice that its complete PAP was filed with DOGM.
April 22, 1996	DOGM determined that the PAP was administratively complete for public review and comment.
April 23, 1996	DOGM approved the PAP.
May 13, 1996	OSM received DOGM's final State decision and findings
June 12, 1996	The State Historic Preservation Office provided its comments on the mining plan.
November 4, 1996	The U.S. Fish and Wildlife Service provided its final biological opinion on the coal mining operations proposed in the mining plan, and required contribution to the National Fish and Wildlife Foundation fund pursuant to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin to offset adverse impacts to endangered fish species.
April 28, 1997	National Fish and Wildlife Foundation received the final contribution to the fund from CPMC.

June 2, 1997

The Bureau of Land Management provided its findings and recommendations on the approval of the mining plan.

June 27, 1997

DOGM issued amended permit to include Federal lease UTU-73975 that was not included in the April 23, 1997 permit.

August 6, 1997

OSM's Western Regional Coordinating Center recommended to the Director, OSM, that the mining plan action be approved.

September 3, 1997

Assistant Secretary, Land and Minerals Management approved the mining plan.

U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT

FINDING OF NO SIGNIFICANT IMPACT
FOR

Willow Creek Mine

Federal Leases UTU-73975, SL-046652, SL-048442-050115, U-0146345,
and U-0148779

Mining Plan Decision Document

A. Introduction

Cyprus Plateau Mining Corporation (CPMC) submitted a permit application package (PAP) for a permit for the Willow Creek Mine to the Utah Division of Oil, Gas and Mining (DOG M) under the Utah State program (30 CFR 944). The PAP proposes underground mining operations into about 2,941 hectares (7,263 acres) in Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779. The proposed mining plan action would create 22.7 hectares (56 acres) of new surface disturbance in the mining plan area.

Under the Mineral Leasing Act of 1920, the Assistant Secretary, Land and Minerals Management, must approve, approve with conditions, or disapprove the mining plan action for Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779. Pursuant to 30 CFR Part 746, the Office of Surface Mining Reclamation and Enforcement (OSM) is recommending approval of the mining plan action.

B. Background

The Willow Creek underground coal mine is located 10 miles north of Price in Carbon County, Utah. The mine began operations in September 1996 on the non-Federal lands. About 31.2 hectares (77 acres) in the State's permit area were disturbed by previous mining operations of the Castlegate mining complex. The mining operations utilize longwall mining methods and coal is mined at an average production rate of about 4.54 metric (5 short) million tons per year. Mining is currently planned to continue for 20 years.

C. The Proposed Action

This mining plan action is for Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779. These

Federal leases contain approximately 2,942 hectares (7.263 acres). However, only 1,439 hectares (3,554 acres) would be mined to extract approximately 66.13 metric (92.91 short) million tons of Federal leased coal. The A, B, C, D, and K coal seams will be mined at an average production rate of about 4.54 metric (5 short) million tons per year.

On April 23, 1996, DOGM issued a permit for surface coal mining reclamation operations to mine coal over a period of approximately 20 years. The permit area contains a total of 5,941 hectares (14,670 acres) including 2,942 hectares (7,263 acres) of Federal lands.

D. Statement of Environmental Significance of the Proposed Action

The undersigned person has determined that the 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.

This finding of no significant impact is based on the following environmental documents prepared by BLM for Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779:

- (1) Environmental Analysis Report for Franklin Real Estate Co. Coal Lease Adjustment for lease SL-048442-050115, et.al, January 24, 1977.
- (2) Decision Record/Rationale, Coal Lease (SL-046652) Adjustment, Franklin Real Estate Company, EAR No. UT-060-PR-81-16, dated September 8, 1981.
- (3) Decision Record and Findings of No Significant Impact, Readjustment of Federal Lease U-0146345, dated March 22, 1985.
- (4) Decision Record and Findings of No Significant Impact, Readjustment of Federal Lease U-0148779, dated December 10, 1985.
- (5) Environmental Assessment for Cyprus Plateau Mining Corporation's Application for Lease for Willow Creek North Area, June 1996. OSM is a cooperating agency in the preparation of this EA.

OSM independently evaluated these environmental compliance documents as of the date specified below and has determined that they adequately and accurately assesses the environmental impacts of the proposed action and provide sufficient evidence and analysis for this finding of no significant impact. OSM takes full responsibility for the accuracy, scope, and content of the EA's prepared in cooperation with BLM.

Chief, Program Support Division
Western Regional Coordinating Center

Date

Memorandum

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Moab District

IN REPLY REFER TO

1791

SL-049442-0501

U-25485

✓SL-071737

TO : State Director, Utah (U-930)
AssL

FEB 12 1996

Date: JAN 24 1977

FROM : District Manager, Moab

SUBJECT: Franklin Real Estate Company Coal Lease Readjustment
Series Number SL-048442 - 050115, U-25485, SL-071737.

Attached for further processing is the Franklin Real Estate Coal Lease Readjustment EAR/Tech Exam and file. I have reviewed the EAR and find that it adequately assesses the proposal, and therefore, am recommending that no formal EIS be prepared. This recommendation is based on a lack of public controversy, a lack of significant residual impacts, and the lack of any major irretrievable commitment of resources other than the coal involved. Further, I am also recommending that all of the measures discussed under the heading, "Possible Mitigating Measures" be included as stipulations as they would significantly reduce anticipated environmental impacts if the renewal is granted.

Bill Miller of U. S. O. the Resources Staff is in possession of the case file which accompanies this action.

Enclosures:
EAR/Tech Exam

R. Bolander/mew 11/29/76

Lease SL-048442-050115

Issued 1930

Readjusted 1950 ~~was~~ was due for
readjustment 1970. BLM tried to

readjust terms in 1977 to comply with

new 1976 ~~and~~ Coal Leasing Amendment Act

and a EA done. Courts ruled that

BLM could not readjust after due

date 1970 and so next readjustment

was 1990. ~~Categorical~~ Categorical Exclusion

for 1990 also attached

43 CFR PART 23 TECHNICAL EXAMINATION

AND

ENVIRONMENTAL ANALYSIS REPORT

FOR

FRANKLIN REAL ESTATE CO.

COAL LEASE READJUSTMENT

SERIAL NUMBERS:

SL-048442 - 050115

U-25485

SL-071737

PREPARED BY:

W. Miller.....Utah State Office
L. Peterson.....Chief of Resources
R. Bolander.....Environmental Coordinator
N. Armantrout.....Fisheries Biologist
J. Travis.....USGS

C. Franklin.....Hydrology
D. Mari.....Utah State Office
J. Cresto.....Wildlife Specialist
R. Barry.....Recreation

Signatures:

Larry A. Peterson
Team Leader

JAN 24 1977

Date

Ronald B. Bolander
Environmental Coordinator

JAN 24 1977

Date

Leon E. Bergman
Price River Area Manager

JAN 24 1977

Date

S. Gene Day
District Manager, Moab

JAN 24 1977

Date

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I. BACKGROUND

A. Status, Location, and Identification of Lands Affected

The Franklin Real Estate Company, a subsidiary of American Electric Power Service Corporation, currently holds coal leases which are subject to readjustment of the terms. Three coal leases are considered identified as follows:

<u>Coal Lease Serial No.</u>	<u>Lease Area (Acres)</u>
SL-048442 - 050115	2,562.88
U-25485	543.42
SL-071737	1,960.00

The legal descriptions of these leases are listed on the mineral report title pages contained in the appendix. The surface of the leased lands is in federal, state, and private ownership. The private lands are presently in the ownership of the Franklin Real Estate Co. The federal lands are under the administration of the Bureau of Land Management.

Braztah Corporation, a wholly owned subsidiary of McCulloch Oil Company, has been designated operator of the three leases being readjusted, in addition to other holdings contiguous to the subject lease areas.

The leases under consideration and other current holdings operated by the Braztah Corporation are located approximately ten miles north of Price, Utah (see general location map figure no. I-1). Specific lease location and land status are shown on map figure no. I-2.

B. Adjoining Land Uses

Land uses adjoining the subject leases are primarily mining and grazing and are the current uses being made or proposed on the leased lands. U. S. Highway 50 and 6 and a main line of the Denver, Rio Grande and Western Railroad traverses a portion of lease No. SL-071737. Utah Power and Light Castle Gate Electric Generating Plant is located in Price Canyon approximately 1 1/2 miles south of the lease area. The Price City Water Works is located in S. 26 T. 12 S., R. 9E., just south of the same lease. Some residential and commercial use is made of lands in Price Canyon adjacent to the lease areas. The Price Canyon Recreation Area is located at the northern edge of the lease areas. Limited recreation values exist for hiking, sightseeing, and other recreation uses. Other surface uses are primarily for grazing and wildlife habitat. Anticipated future use is not expected to change substantially. Increased coal production from other existing coal leases in the area is also expected.

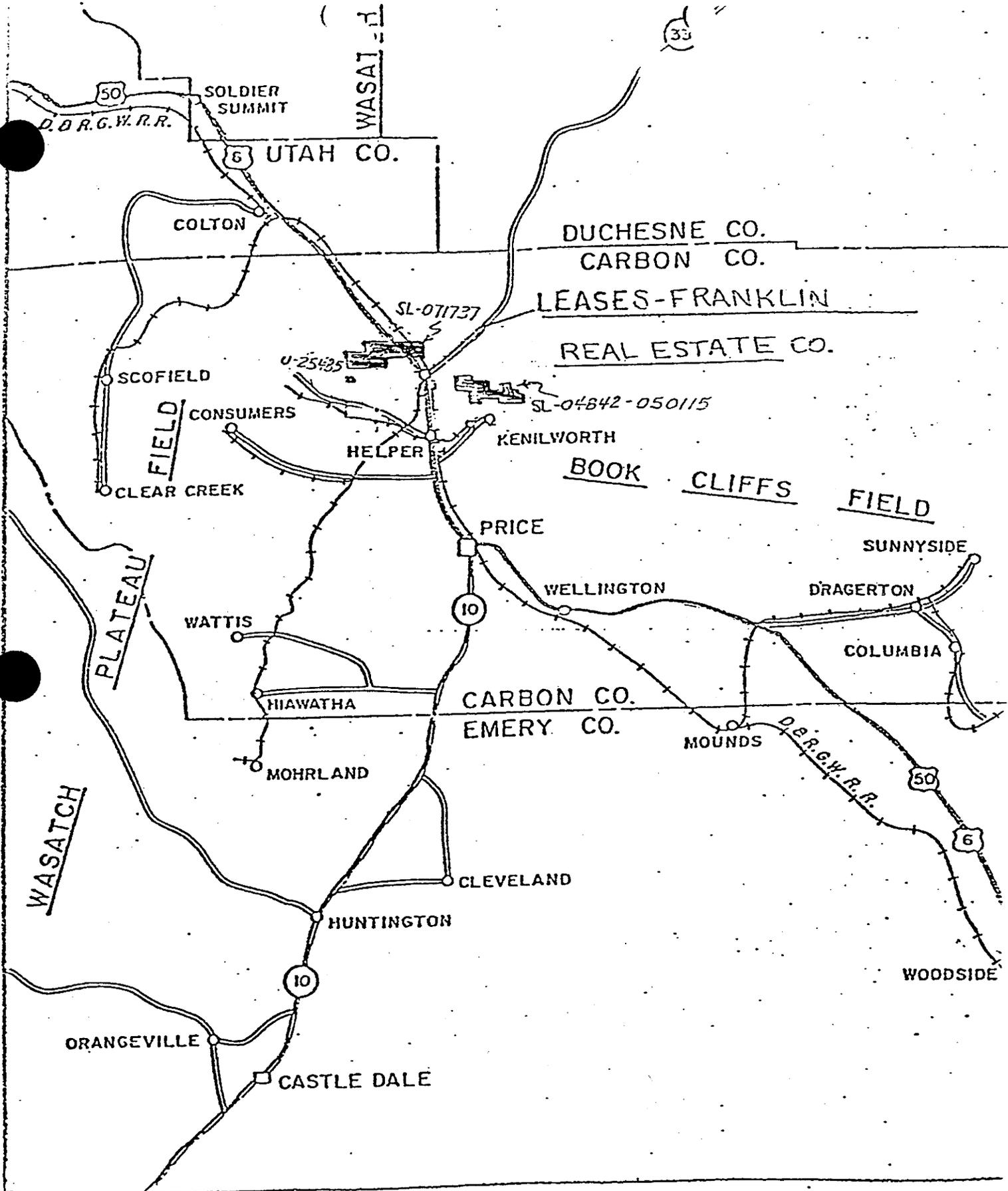
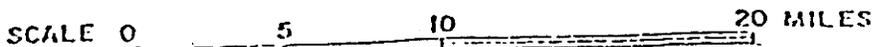


FIGURE I-1

I-2



C. Planning and Zoning Data from Local Government

The coal leases are located in Carbon County, Utah. Revised county zoning regulations (1974) indicate all lands involved in the lease application are within zone M&G1 which is mining and grazing.

D. BLM Plans for Affected Land and Environment

The proposed lease application is located in the Wattis Planning Unit of the Price River Resource Area. The Wattis Management Framework Plan was completed in June of 1973. In general, BLM plans to continue multiple use management in the planning unit. The continuance of the coal leases would not conflict with present plans for the unit.

E. Present and Projected Demand for Mineral Materials

The Company has acquired several lease holdings in order to consolidate properties into one large mining unit. Acquisitions were made from Carbon Fuel Company, Spring Canyon Coal Company, and the Valley Camp Coal Company. The holdings presently total 26,220 acres, containing three operating mines with a combined production of 480,000 tons annually.

The present demand for this coal is the result of the need to control sulfur oxide emissions to meet the permissible established limits in the midwestern United States. The Corporation plans to increase production to 6.5 million tons annually by 1981 to meet the present demand for low sulfur high BTU coal, to blend with high sulfur eastern coals. The present demand is expected to continue since a practical commercial method of sulfur removal is not anticipated to be developed in the near future. Commitments for delivery by unit train to several eastern power plants of an eventual 140 million tons have been made.

II. DESCRIPTION OF THE PROPOSED ACTION & ALTERNATIVES

A. Federal Action Required

The federal action under consideration is the readjustment of the terms for continuance of the lease beyond the preceeding 20 year period in accordance with the terms of the original lease and 43 CFR 3520.2-1. This action requires a technical examination of the lease areas in accordance with 43 CFR Part 23 and the preparation of an environmental analysis report. On the basis of the examination and report, the stipulations and bonding requirements are developed for incorporation in the lease for the subsequent 20 year term. The Geological Survey in addition to participation in the technical exam also recommends the rentals, royalties, and production requirements for inclusion in the adjusted lease terms.

B. Scope

The scope of this analysis was established with the objective of analyzing the subject lease areas to consider readjustment of the stipulations and bonding requirements specific to the subject leases. The primary geographic area under consideration is confined to the actual lease area. Those considerations having broader geographic implications or that extend beyond the lease boundaries are treated on a larger area basis.

C. Subsequent Administrative Action

Prior to entry on to the leases for coal exploration or mining, the lessee is required to submit for approval to the Area Mining Supervisor of the Geological Survey, a detailed exploration and mining plan.

Under the terms set forth in 43 CFR part 3520, the Bureau of Land Management together with the USGS may readjust royalties and other terms and conditions of an issued coal lease at the end of the subsequent twenty year lease period.

These actions would require additional environmental analysis and technical examination prior to approval. Additional conditions of approval or mitigating measures may be stipulated as a result of a more detailed evaluation of the plans. Approval of exploration and/or mining plans may be withheld or alternative exploration and mining plans required as a result of the environmental analysis.

D. Existing and Proposed Mine Development

1. Existing Facilities and Present Mining Operations

The Braztah Corporation is currently producing coal from a mine entry located in Hardscrabble Canyon (see map no. I-2) located in the southwestern portion of the corporation's holdings. Approximately 480,000 tons of coal have been produced annually from this entry. Two new mine entries were recently opened in 1975 with production originating from the Castle Gate D seam. One of the entries is located in Hardscrabble Canyon and the other in Sowbelly Canyon. Total production from the three entries is planned to be increased to approximately one million tons annually. The coal is presently being trucked from these mines to loading facilities located on the Denver, and Rio Grande Western Railroad at Castle Gate (see map no. I-2). The present corporation holdings include numerous abandoned and closed underground mine workings and entries located on the present coal properties. Mining has occurred in the past in the multiple coal seams located throughout these holdings.

2. Proposed Coal Development, Utilization & Production Schedule

The Corporation has proposed to construct a pair of rock slope entries with portals located at Castle Gate to provide access to mineable coal reserves located on the leases under consideration. The Castle Gate rock slope entries are designed for the purpose of circumventing abandoned and hazardous mine workings that presently create access problem to mineable coal reserves. The tunnels once constructed will accommodate a completely underground beltline conveyor haulage system. These tunnels will be used to facilitate the mining on these leases in addition to other federal coal leases and holdings. Most of the proposed production will be transported by this system and other conveyor systems to the central loading facilities and plant proposed for development at Castle Gate.

The Castle Gate rock slope and coal conveyor will serve as the transportation system for an estimated 60 percent of the Company's production. The coal will be crushed, washed, and loaded on unit trains for transportation to electric power plants operated by the American Electric Power Company (AEP) in several midwestern states.

Total coal reserves held by the corporation are estimated at 140 million tons of assured coal and 88 million tons of probable coal. The Braztah Corporation has a contract agreement with AEP to supply 6.5 million tons of coal annually. The coal produced from these mines is scheduled to be delivered to and used at electric generating stations in Ohio and Indiana which are now owned or will be constructed by American Electric Power Service Corporation (AEP). The expected life of the total mining operation, based on estimated coal reserves, is 25 years with a production rate of 6.5 million tons per year.

More detailed information concerning the existing and proposed mine developments of the entire operation are found in the 43 CFR Part 23 Technical Examination and Environmental Analysis Report for Braztah Corporation Competitive Coal Lease Application No. U-25683 dated 10/3/75.

3. Anticipated and Proposed Surface Facilities and Operations

The surface facilities and activities anticipated on the leases proposed for readjustment are limited to two manway entries and airway entries all located on coal lease No. SL-071737 in Crandall Canyon. Additional exploration of the coal deposits by core drilling is planned on all the lease areas being considered in this technical examination and environmental analysis. Future surface developments are expected to occur on all leases as exploration and mining progresses.

The major surface developments associated with the manway facilities will include the construction and maintenance of approximately two miles of a paved two-lane all-weather access road in Crandall Canyon. The establishment of the manway facilities will require the construction and maintenance of an elevator shaft entry, super structure, hoist house, bath house, storage yard, parking facilities, ventilation fan, powerlines, water supply, and sewage waste disposal facilities. Specific plans have not been developed and the exact location and layout of the facilities in the canyon determined. It is assumed, however, that approximately five acres of land surface would be required to accommodate each manway facility and 12 acres required to accommodate the access road. Each manway is anticipated to serve a shift of approximately 50 miners. Mining will take place in two or more shifts.

In addition to the manway entries, a mine ventilation fan installation will be located on lease No. SL-071737. This installation will require a level area approximately 100' x 100'. Also an access road and powerline will be constructed. A small building and fan housing will be erected to accommodate the fan and motor.

Construction and preparation of the access road, mine ventilation fans, and manway entries sites will require the use of heavy earth-moving equipment, trucks, and other transportation vehicles to haul men, equipment, and materials to the construction sites. It is anticipated that a large construction crew will be required to erect the buildings and other facilities. The use of explosives may be necessary to construct access roads and sites where solid rock is encountered.

In order to accommodate the construction activities and facilities, the site preparation will require removal of vegetation and leveling of the present landscape for the access road and structures associated with the manway entries.

Apparently, sometime in July, Braztah constructed the road in Crandall Canyon in anticipation of the proposed developments. The road was relocated to avoid crossing any national resource lands and is, therefore, situated totally on private land. Construction of the road was routed along the southeast side of the canyon and required several large cuts and fills. It is visible from US 6 and 50 and from the Price Canyon Recreational Area. BLM was unaware of the road's construction until after its completion.

A considerable increase in human activity is anticipated in Crandall Canyon during the life of the mine along the access road and manway entries. Several peak activity periods are expected to occur during shift changes. Noise resulting from traffic and human activities will result. The operation of air fans will create a constant background noise, which may be heard over a considerable distance depending on location and adjacent surroundings.

4. Exploration Operations

Braztah Corporation is currently conducting exploration operations on the leases being considered and other adjacent Federal leases and corporation holdings. A 55-hole exploration program is presently being conducted, drilling is being conducted with four rigs each on a two shift basis. Surface exploration will probably continue for the life of the mine and will generally precede the actual start of mining to determine the nature of the overlying strata, depth and thickness of the coal deposit, grade of the coal, and often the quantity and quality of ground water. Exploratory drilling is being done with truck-mounted rotary drill rigs. Additional equipment used by an exploration crew includes water trucks, personnel carriers, a hole-logging equipment truck, and a dozer or blade to assist in obtaining access to the exploration area and drill site. Exploration will require construction of access roads for equipment, drill pads to accommodate the drill rig and other equipment and mud pits to hold drill cuttings and mud. The time required to drill the holes will vary depending on the intensity of exploration.

Drill site preparation will require the leveling of an area approximately seventy-five by two hundred feet. A mud pit will be constructed at each site to collect return water and drill cuttings. The pit will be approximately twelve by twenty-five feet and four feet deep. Mud additives are used as needed. Roads are anticipated to be approximately 15' in width depending on topography and other site conditions.

Prior to abandonment, drill holes are cemented to one hundred feet above the upper mineable coal seam and a twenty foot cement plug is placed at the collar of the hole with a metal pipe and identification marker. All mud pits will be filled and the drill sites will be leveled and seeded upon completion of the holes.

5. Underground Mining Operations

Access to the underground mine operation will be provided by the facilities described previously. These entries and facilities will serve for the life of the mine to provide access for underground operations, and coal transport system.

The exploratory drilling to date indicates numerous mineable coal seams on the subject leases. Mining plans indicate mining would be conducted in the following seams: D, B, A, and sub-3 (see figure 2 for the columnar sequence of the seams). Other seams may be mineable at various locations on the subject leases. However, lack of continuity of some seams and present knowledge obtained from the exploration is not conclusive. It is anticipated that at least three mineable coal seams exist under the entire area including what is now abandoned mine workings. Multiple seam mining can be expected to occur over the entire area. Planned multiple seam mining will require that the upper most seam be mined first to avoid hazardous caving and subsidence below other mineable coal seams or active mine workings.

Four mining methods can be anticipated to be employed in the coal mining operation, depending on the conditions and nature of the coal seam. These methods include: conventional and continuous room and pillar, long-wall, and short-wall mining. Coal is currently being mined by continuous miner units using the room and pillar mining method. Long-wall mining units are currently being installed. If long-wall mining proves to be successful, it is planned that five such units will ultimately be used in the total operation.

In both conventional and continuous room and pillar mining, part of the coal bed is removed by driving parallel excavations or rooms. The coal remaining between the rooms becomes the pillar, which is pierced at certain intervals by break-throughs or "cross cuts" to provide passageways for ventilation.

Openings are developed in a uniform pattern within a panel or block of coal. Remaining columns of coal or pillars are left standing for support of the overlying strata. The coal is either cut or blasted from the coal face. The broken coal is then gathered by a loading machine which transfers it onto a shuttle car for transportation to a nearby conveyor belt. Continuous room and pillar mining is identical to conventional room and pillar mining except the mining is performed by a single machine, the "continuous mining machine". The continuous miner rips the coal loose from the coal face with mechanical cutters and loads the broken material directly into a conveyor belt or shuttle car. After the coal is removed, the roof is supported by either timber or steel supports, or more commonly, "roof bolts" which bind the overlying roof rock into a "continuous beam". The pillars may be pulled or mined upon completion of mining and the roof allowed to cave.

Long-wall mining is a continuous full extraction mining method. The coal is mined in a single cut, no pillars are left, and the overlying strata is permitted or induced to cave once mining is

completed. This mining method is particularly applicable when the coal bed is of uniform thickness, contains no hard partings which cannot be readily broken by mechanical means, and when roof support or control is very difficult.

The long-wall machinery, consisting of a combination coal shear and plow, which rips the coal from the face in a continuous sweep varying from 2500 - 7500' long, a chain-type conveyor, and a set of hydraulically operated self-advancing roof supports, are installed along the face of the coal being mined. A conveyor belt is used to deliver the coal from the mine area. Caving of the unsupported roof behind the chocks follows virtually unhampered and with a high degree of safety to miners who remain under the canopy of supports.

Short-wall mining is a combination of the continuous mining and the long-wall methods. Short-wall mining, as the name implies is used on smaller coal blocks than long-wall mining. The principles of roof support and post mining caving are the same as in long-wall mining. Actual mining is accomplished by utilizing continuous mining machines and shuttle cars.

In areas where the thickness of the coal is non-uniform, long-wall or short-wall methods lose their advantage, and room and pillar methods are employed. Where possible, maximum extraction mining methods such as "long-wall", or continuous room and pillar with pillar extraction will be used. It is anticipated that most of the mining will be accomplished employing a combination of these methods.

E. Alternatives

The following alternatives to the proposed action are considered within the scope of this environmental analysis. A brief description of each of the alternatives is contained in this chapter. The analysis of the individual alternatives is contained in Chapter IV analysis of the proposed action and alternatives. Additional alternatives are presented in the Final Environmental Impact Statement Proposed Federal Coal Leasing Program.

1. Administrative Alternatives

- a. The No Action alternatives would involve not readjusting the lease terms and conditions.
- b. A partial readjustment of the lease could be performed wherein only selected terms and conditions would be readjusted.
- c. Readjustment could be delayed and performed anytime during the life of the lease, however not more frequently than once during the 20 year term.

Series	Stratigraphic Unit		Thickness (feet)	Description
Eocene	Green River Formation		-	Greenish gray to white claystone and shale, also contains grained and thin-bedded sandstone. Shales often dark to containing carbonaceous matter. Full thickness not exposed.
	Colton Formation	Wasatch Formation	300-2,000	Colton consists of brown to dark red lenticular sandstone, and siltstone, thins westwardly and considered a tongue of Wasatch.
	Flagstaff Limestone		3,000	Wasatch predominantly sandstone with interbedded red and shales with basal conglomerate. Found in east part of field equivalent to Colton and Flagstaff in west.
Paleocene	North Horn Formation		350-2,500	Gray to gray green calcareous and silty shale, tan to yellow fine-grained sandstone and minor conglomerate. Unit thins to west.
	<i>MINOR COAL</i>			Light gray to cream-white friable massive sandstone and ordinate buff to gray shale that exhibits light greenish. Contains minor conglomerate and probably represents part of North Horn, only present in east part of field.
Danian	Tuscher Formation		0- 200	
Maestrichtian	Mesaverde Group	Price River Formation <i>MINOR COAL</i>	500-1,500	Yellow-gray to white, medium-grained sandstone and shaley stone with gray to olive green shale. Contains carbonaceous shale with minor coal and thickens along east edge of field.
Campanian		Castlegate Sandstone <i>MINOR COAL</i>	100- 500	White to gray, fine- to medium-grained, argillaceous massive sandstone thinning eastwardly with subordinate carbonaceous east of Horse Canyon but coal is thin lignitic.
		Blackhawk Formation <i>MAJOR COAL SEAMS</i>	600-1,100	Cyclical littoral and lagoonal deposits with six major littoral deposits mainly thick-bedded to massive cliff-forming yellow-gray fine- to medium-grained sandstone, individual separated by gray shale. Lagoonal facies consist of thin thick-bedded yellow-gray sandstones, shaley sandstones, and coal. Coal beds form basis of Book Cliffs coal field thins eastward grading into the Mancos Shale.
		Star Point Sandstone	0- 580	Yellow-gray massive medium- to fine-grained littoral sandstones projecting easterly separated by gray marine tongues projecting westerly.
		Masuk Tongue	Mancos Shale	4,300-5,050
Santonian	Emery Sandstone			
Coniacian	Garley Canyon Sandstone			
	Blue Gate Shale			
Turonian	Ferron Sandstone <i>MINOR COAL</i>			
	Tunuck Shale			
Cenomanian	Dakota Sandstone		2- 126	Heterogeneous sandstone, conglomerate and shale, thin reworked.

Figure III-1
Generalized section of rock formations, Book Cliffs coal field.

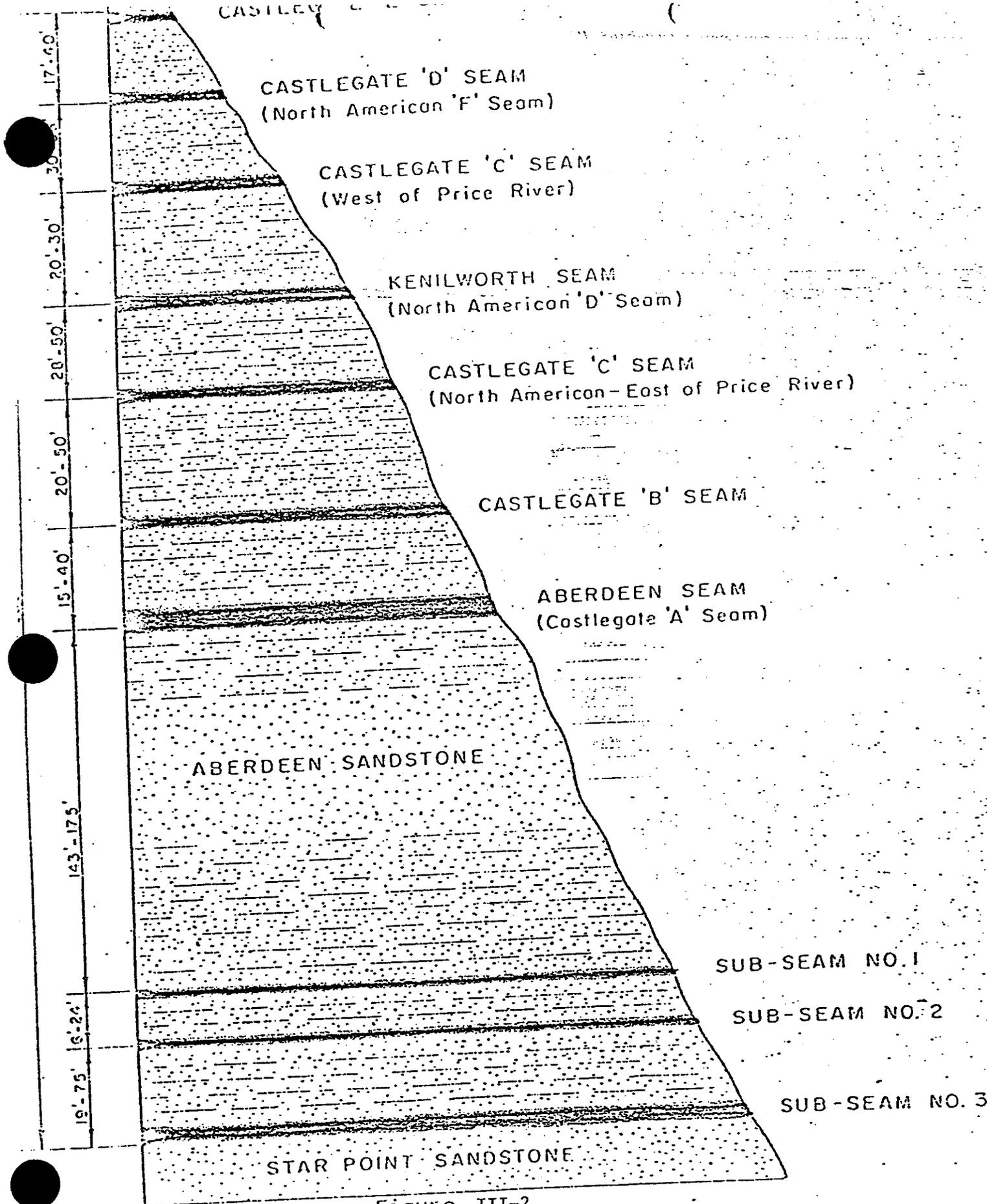


Figure III-2
 Generalized Columnar Section
 Spring Canyon - Castle Gate Area
 III-2b

- d. Action involving revoking existing leases can be taken at anytime after the lease has been issued.

2. Alternative Lease Development and Operations

Several alternative, methods of mining, location of surface facilities and exploration methods can be required to promote conservation of the coal resource and protection of the environment. The alternatives considered are:

- a. Alternative mine development and extraction methods.
- b. Alternative reclamation methods.
- c. Alternative exploration methods.
- d. Alternative surface developments.

Braztah's recent action of constructing the access road in Crandall Canyon could significantly minimize the utility of many of the alternatives discussed above. The alternative actions were developed before knowledge of the road construction was obtained.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT

A. Non-living

1. Atmospheric Resources - Climate, Air Quality, Noise

The lease areas lie within an annual precipitation belt of 8 to 10 inches. The average annual precipitation is 8.5 inches. Annual temperature averages 57 degrees F. Recorded snow data indicate an average accumulation of 16 inches with an average water equivalent of 1.8 inches. The average frost free season extends some 135 days from June through September.

Air Quality is generally considered to be fair in Price Canyon and the surrounding area where the leases are located although there are several sources of local air pollution. Utah Power and Light, for example, operates a 160 KV power generating plant near the junction of U. S. 50 & 6 and State Highway 33. Fugitive dust resulting from coal storage and construction activities associated with coal mining also affects the current air quality with the addition of particulate matter into the air. The high volume of vehicular and railroad traffic in the canyon and surrounding area also is degrading air quality.

There are no specific data available concerning noise levels in Price Canyon and associated areas. Current noise levels are thought to be within existing Federal Statutes (Occupation Safety Health Act). Major sources of noise on or near the leases are located in Price Canyon where U. S. Highway 50 - 6 and the Denver Rio Grande and Western Railroad traverse lease No. SL-071737. Crandall Canyon, in its undisturbed state, lacks any major noise source.

2. Topography

The area of the Braztah holdings lies at the junction of the Book Cliffs and the Wasatch Plateau at the southwestern edge of the Uintah Basin. The Book Cliffs is the major physiographic feature in the area. The cliff line has its base at 6,000 feet elevation, and rises abruptly to over 8,500 feet. The general aspect of the lease area is mountainous.

The Cliffs are dissected by the Price River, which is the major drainage in the area. The river has carved a narrow canyon that is flanked by vertical cliffs and steep talus slopes that rise 1,600 feet above the canyon floor. The lease areas under consideration exhibit an extreme amount of topographic relief and are mountainous with steep cliffs and deeply incised drainages. The side drainages of the Price River are located in narrow canyons, flanked by vertical cliffs and steep talus slopes. In the lease areas, these include Crandall Canyon and Alrad Canyon. Slopes range from 5 to 90 percent, and elevations range from 6,000 feet to 9,500 feet above sea level.

3. Geology - Mineral Resources

a. Geology

Basically, the Book Cliffs are a homocline dipping gently to the north. The major rock-stratigraphic units within the lease areas are the Blackhawk Formation, Castlegate Sandstone, and Price River Formation of Cretaceous Age, and the North Horn Formation and Flagstaff Limestone of Paleocene Age. Lithologies present include fluvial, deltaic, and marine sandstones, mudstones, and shales (Figures III-1 and III-2). The Blackhawk is the major coal producer in the lease area.

There are faults in the lease area, but they are local, with maximum displacement of only 20 feet. The faults trend in a general north-south direction. A few earthquakes have had their epicenters in the immediate area. The seismic risk map of the United States prepared by ESSA/Coast and Geodetic Survey places the Braztah leases in Zone 1-2 where earthquake

damage can be expected to be minor to moderate. Several earthquakes of magnitude 3 to 5 on the Richter scale have occurred, 20 to 30 miles to the east. One earthquake which was centered on the Braztah lease area measured between 3.0 and 3.9 on the Richter scale. The effects of an earthquake of these magnitudes may range from faint shaking with no damage to shaking causing some architectural damage to buildings, movement of heavy furniture, and breakage of windows.

b. Oil and Gas

Two organized gas fields are located on anticlinal structures about 10 miles southwest of the Braztah leases. These produce from the Ferron Sandstone of Cretaceous Age, which is present in the subsurface below the coal seams on the Braztah leases. Some oil and gas exploration has occurred in the recent past in the general area of the subject leases. In 1956, a well, now plugged and abandoned, was drilled in Section 27, T. 12S., R. 10E. There are no producing oil or gas wells within the lease boundaries. Oil and gas potential is rated fair, and future exploration can be expected.

c. Coal

Two major coal fields have contributed the principal part of the coal production from central Utah -- the Wasatch Plateau and the Book Cliffs fields. Many variations in thickness and continuity of seams are encountered throughout the area. These two coal fields contain an estimated mineable coal reserve of approximately 5.0 billion short tons. Most of the coal is recoverable by underground mining. Development of the Braztah coal reserves, including those on the subject leases, is scheduled for the sub-seam no. 3, the Castlegate "A", "B", and "D", and the Kenilworth seams (Figure III-2). All of the coal is bituminous rank with 12,000 to 13,500 btu per pound. The sulfur content is normally below 0.5 percent.

4. Soils

Soils of the area are typical of the arid mountain region of the state. They are predominately well drained, and range from shallow to deep. Textures range from sandy loam to clay, but are commonly loam or clay loams. Many of the soils contain gravel, cobbles, or stones in amounts ranging up to 60 to 70 percent. These type of soils are found on high mountain slopes,

ridges, and plateaus. Runoff may be rapid during or from convection type storms. Permeability is low to moderate. Erosion and sediment production can be serious problems on these soils due to a lack of sufficient vegetal cover, steep topography, and soil characteristics. Productivity of these soils is generally classified as poor.

5. Hydrology

a. Surface Water

The only perennial stream located within the area under consideration is the Price River. The river is a source of water for municipal, agricultural, and industrial use. The mean annual flow of the river measured at USGS Heiner Station is 75,743 acre feet. Water quality data are sparse. Some sampling on the upper Price River has been made over the past several years. In general, the water is of poor quality with a high total dissolved solids content (4,000 mg/l). The major constituents are a number of dissolved salts; including sulfate, sodium, calcium, and magnesium. Sediment production due to surface runoff in the Price River drainage is considered high.

The lease areas are dissected by numerous drainage channels located in steep canyons. Flows in these streams are intermittent and result from periodic snow melt and thunderstorm activity. Intense thunderstorm activity may produce flashflooding in the intermittent stream channel. The steep slopes and large amount of rock promotes rapid accumulation of water in the stream channels. Flashflooding produces increased sediment loads within the Price River. There is no specific flood flow data or frequency available for the lease area.

b. Ground Water

Springs are located throughout the steep canyon areas and are found primarily on the higher portions of the ridges. There is no flow data available for any of the springs and no known chemical analysis has ever been made on any of the springs located on the lease areas. It is assumed that the quality is good. Use is made of these springs by livestock and wildlife. Surface geology would indicate that there are no shallow confined aquifers. However, due to faulting, the area may represent a recharge zone for deeper aquifers. Current mining activities adjacent to the lease application have resulted in the production of mine water. The water produced from adjacent mines is used in the underground mining operation. The quantity and quality of water produced is

unknown. High producing ground water aquifers have not been encountered. Ground water quality produced from the adjacent mining operation is expected to be fair.

B. Living Components

1. Vegetation

Major plant communities are found within the area. A mixed conifer community is found on the north facing slopes of the higher elevations, and a mountain brush community is found on the south facing slopes. The mountain brush community occupies both the north and south exposures at intermediate elevations. A pinyon-juniper community occupies the lower elevations. Wide transition zones often exist between the latter communities.

a. Mixed Conifer Community

The major native tree species in this community are Douglas Fir, Sub-alpine Fir, White Fir, Ponderosa Pine, and Quaking Aspen. Fir stands are characterized by mature and over-mature trees, which are of little commercial value. The major understory shrub species present are true mountain mahogany, serviceberry, chokecherry, snowberry, Rocky Mountain maple, and willow.

b. Mountain Brush Community

This community is confined primarily to the lower elevation, of the area; less than 5,500 feet. The major species present are pinyon pine, Utah juniper, Rocky Mountain juniper, sagebrush, mountain mahogany, serviceberry, and rabbitbrush. The pinyon-juniper trees have a limited commercial value for firewood and fence posts.

Several native understory grass and forb species are present in the plant communities mentioned above. These include smooth brome, bluebunch wheatgrass, western wheatgrass, Kentucky bluegrass, squirrel tail, Indian rice grass, blue grama, yarrow, stickseed, aster, sego lily, western beeweed and lupine.

c. Threatened or Endangered Plant Species

No threatened or endangered plant species have been identified on the three leases under consideration although there is a possibility that some species may exist in the area.

d. Fire Incidence

Lightning caused wild fires occasionally occur during the summer months, mainly on the heavily timbered north slopes. These seldom exceed 50 acres in size. Man-caused fires along the railroad tracks in Price Canyon are fairly common. Most of these fires are usually less than ten acres in size.

2. Livestock

Three grazing allotments are present on the coal lease areas. Coal leases U-25485 and SL-071737 are grazed by sheep and cattle generally from May into November and coal lease SL-048442 - 050115 is grazed by cattle from May into October. A fragmented surface land pattern exists within the allotments which contain state, private, and federal lands. The acreage livestock carrying capacity for the three allotments is approximately 17 acres per AUM*. A total of 1,038 AUM's is presently available for use within the allotments which also includes lands outside the coal leases under consideration. Due to the extremely rough topography, some of the areas are unsuited for grazing and are unallotted. The more valuable grazing areas are located in the canyon bottoms. Grazing use is light over much of the area due to the topographic hinderance to livestock movement. Rough topography limits the potential for range improvement development. Livestock water sources are intermittent streams and a few reservoirs located on private lands. No range improvements are located on the federal lands within the allotments.

*AUM = The forage necessary to sustain one cow and calf under 6 months of age or 5 sheep for one month.

3. Fish and Wildlife

a. Wildlife (Terrestrial)

The major big game species found on or near lease SL-071737 and U-254852 are deer and elk. During the winter, approximately 200-300 elk migrate from Beaver Mountain to the ridge top northwest of Helper, Utah. This herd must spend a portion of each winter and spring migrating through or wintering on these two lease areas:

There are approximately 100 head of deer that stay in the lease areas yearlong. These deer are scattered throughout the higher elevations of the area during the summer months. Deer herds have been observed in Spring Canyon and in Crandall Canyon. The lower elevations of the area are primarily used as winter range for deer. The total winter

deer population is approximately 200-500 head and appears to be in a static condition at this time.

Lease SL-048442-050115 (located approximately three miles east of Castle Gate, Utah) is not a significant deer range. Presently there are no elk in this area. However, some elk from the recent Willow Creek elk transplant could winter in this area in the future.

Other wildlife species found in the area are the snowshoe hare, cottontail rabbit, blue grouse, sage grouse, chukars, bear, mountain lion, bobcats, coyotes, and small mammals such as marmots, tree squirrels, and ground squirrels. Several species of raptors can be found in the area yearlong. For a complete listing of game and non-game species found in the area of the lease application, see the Wattis Unit Resource Analysis.

b. Aquatic

The only fishery resources in the lease area are found in the Price River. The river has been altered by past coal mining and road construction. The original stream course no longer exists. The stream now flows along an essentially straight channel, defined by dirt and rock levees. Most of the original vegetation has been removed and the waters are exposed to direct sunlight. Few pools remain; those still present are shallow and largely silted in. Removal of cover and continued human activity upstream have increased silt loads downstream.

Some salmonids, a few carp, and scattered other fishes live in the lease area, but populations are small, and do not contribute significantly to the fishery. Downstream, salmonids survive only a short way before being replaced by cyprinids (minnows), catostomids (suckers), and ictalurids (catfish), none of which occur in any numbers.

c. Threatened or Endangered Species

The American Peregrine falcon is an occasional visitor to this area. There are no other threatened or endangered species known to migrate through or inhabit the general area.

4. Ecological Interrelationships

Much of the local environment surrounding the leases has been ecologically modified by developments such as U. S. Highway 6 - 50 and other roads, railroads, substantial mining, a power plant, and other activities related to man's presence. As a result, much of the area has lost its natural character. For example, Price River and Willow Creek represent extensively modified ecosystems having been channeled and altered to accommodate the new highways, mines, power plants, etc. They also absorb increased sediments and other forms of pollution which decreases water quality.

A predator-prey relationship, which is typical of the region, exists between livestock, the recently transplanted elk herd, deer, mountain lion, coyotes, etc. This relationship too has been modified by man's presence, such as introduction of livestock, loss of habitat through construction activities and other disturbances.

Mixed conifer communities occupy most of the northern exposures while mountain brush communities occupy the drier and warmer south slopes. A stand of Ponderosa Pine is located in the bottom of Crandall Canyon and serves as a transition area between the conifer and mountain brush communities. Little or no ecotone exists between the different communities on ridge tops.

C. Human Resources

1. Local Economy and Employment - Socio-Cultural Interests

The existing human environment is identical, in most socio-economic aspects, to that described in the following document: 43 CFR Part 23 Technical Examination and Environmental Analysis Report for Braztah Corporation Competitive Coal Lease Application Number U-25683, dated 10/3/75.

2. Human Values

a. Scenic and Aesthetic Features

The lease areas are located in a highly scenic portion of the Book Cliffs, Wasatch Plateau Junction. The area contains massive rock formation and an excellent variety of topography and vegetation which lends to an extensive variation of form, line, color, and texture of the scenery. The extreme amount of relief typified by the high canyon

slopes and mountain sides adds a spectacular dimension to the area. Outside of Price Canyon, the area is relatively silent. This is a pleasing experience to many of the recreation visitors to the area.

b. Recreation

Dispersed recreation use occurs throughout the area of the subject leases. Most use takes place on weekends and is generally in the form of one-day or part-day, family and small group outings. Some of the activities of these recreationists include picnicking, hiking, shooting, hunting, ORV use, and some camping.

c. Actual Use Areas

The Price Canyon Recreation Area located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 28, T. 12 S., R. 9 E. of Coal Lease No. SL-071737 is the only developed facility within the lease area. Current visitation figures run from 10,000 to 12,000 visitors annually. The facility presently contains a developed group picnic site with tables, fireplaces, access road, and sanitary facilities. The area also includes a lookout point for visual enjoyment. The area has both camping and day use facilities. The access road is being upgraded to accommodate campers with trailers. It is anticipated that visitation will significantly increase due to the increased accessibility.

The aesthetic value of the lookout point may have been substantially diminished by the construction of the access road and associated drill pads in Crandall Canyon by Braztah. The road is visible for its entire length from the overlook as will be the majority of projected developments.

d. Scientific Sites

There are no known scientific sites located within the area of the proposed action.

e. Antiquities - Historic Values

There are no known significant archaeological or historic sites within the area of the proposed action. However, the possibility of the existence of archaeological sites on the lease area is considered good. The significance of such sites is unknown.

f. Natural Areas

There are no designated or potential natural areas in the vicinity of the proposed action.

g. Access

Access to the vicinity is provided by a number of primitive, 4-wheel drive roads (most of them old mining roads). Many of these roads are impassable during the winter and spring seasons. The extremely rough topography is the primary constraint to access by any mode of travel.

h. Existing Surface Developments

The two most important public transportation facilities in the area are U. S. Highway 6 and 50 and the main line route of the Denver, Rio Grande and Western Railroad. Both facilities are located on lease no. SL-071737 and within Price Canyon which is the main transportation corridor between Salt Lake City and Price, Utah. The Price city water supply facilities are also located in the canyon, just south of the lease boundary. Water is obtained from the Price River.

IV. Analysis of Proposed Action and Alternatives

A. Environmental Impacts

1. Non-Living Components

a. Climate, Air Quality, Noise

Because there are no quantitative data available concerning air quality and noise levels, it is difficult to determine exactly the amount or intensity of any impact that would be associated with the proposed development of the lease. It can be assumed, however, that air quality would be affected and the noise level would be increased a slight but unknown amount.

Construction and use of facilities, drill pads, and access roads would result in temporary dust pollution and constant noise pollution. This activity could also be observed and heard by visitors who use the Price Canyon Recreation Area. If so, noise and dust would detract from their recreational experience.

These short-term impacts would be carried over to the operational phase of the mining in various degrees of intensity. Noise pollution would result from increased traffic to the manways located in previously undisturbed areas, such as Crandall Canyon. One of the most noticeable and constant sources of noise pollution would be the proposed airshaft fans. The airshaft fan which would be most noticeable and possibly most offensive would be the one scheduled for Crandall Canyon. A good possibility exists that noise produced by the vent fan could be heard by visitors at the Price Canyon Recreation Area.

Each individual lease generally contributes little to air quality degradation and noise pollution. However, in view of the intensive mining the Book Cliffs, Mt. Pleasant, and Wasatch Plateau Fields are expected to receive in the future, cumulative impacts involving air quality and noise pollution may become significant.

b. Topography

Construction activities involving any significant earth-moving would result in alteration of the existing topography. Preparation of the sites to accommodate the permanent access manway entries, and air shaft fan sites would require leveling portions of the present landscape. For example, drill site preparation would require the leveling

of an area approximately 75 feet by 200 feet for each site. The locating of facilities in the narrow confines of Crandall Canyon may require either alteration of the existing stream channel or cutting steep cuts in the adjoining slopes to accommodate the anticipated facilities.

The construction of access roads and drill pads to permit exploration drilling would require alteration of the natural topography to provide adequate access to the exploration sites. This impact would be most pronounced on the steeper hillsides and areas of rough topography. Soil erosion could result from construction of these roads. This additional sediment would enter the perennial water sources, lowering water quality as a result.

Alteration of the topography due to mine subsidence could occur. The surface expression of subsidence is difficult to predict and is dependent on many factors such as depth of the mined area, nature of the intervening rock, thickness of the coal removed and mining method. Subsidence could be evidenced by surface tension cracks with little noticeable change in the character of the landscape, to fracturing of cliff faces and land slides as has occurred at other mines in the Book Cliffs area. Landslide hazards appear to be the greatest in the Price Canyon area where the Price River cuts through Lease No. SL-071737.

c. Geology - Mineral Resources

Mining could adversely affect future oil and gas exploration; circulation of drilling fluids would be lost when the collapsed and rubble roof material is encountered by the drill bit. Oil and gas exploration during active mining would be impossible. In addition, the long-wall mining method would render useless any coal seams presently uneconomic to mine, such as the sub-seams no. 1 and 2.

The proposal would result in the extraction of enough coal to allow Braztah to meet an annual commitment of 6.5 million tons by 1981.

d. Soils

Impact on soils would result from the direct disturbance of an estimated 135 acres of the subject leaseholds. The majority of the impacts would occur due to construction activities necessary to provide access roads and sites suitable for construction and operation

of the lease. Disturbance of soils on steep hillsides and canyons such as the road recently constructed in Crandall Canyon, will greatly accelerate erosion on soils exposed to wind and water. Additional impacts to soils are anticipated to occur from increased off-road vehicle and equipment operation. Soil properties and characteristics which would be altered are rate of erosion, sediment yield, soil moisture relationships, infiltration rates, and water-holding capacity. Due to the limited amount of permanent development anticipated on the leases under consideration, the majority of soil loss and erosion is expected to be localized.

Soil fertility would be lost if top soil were stockpiled for an excessive length of time. Loss of soil fertility would be related to loss of soil microorganisms and leaching. An unknown amount of waste rock could be produced by the construction of the manway elevator shafts which would need to be stockpiled.

e. Hydrology

1. Surface water

Increased surface erosion can be expected during the construction of the proposed mine entries, exploration and to a lesser degree during the operational phase of the mine. Construction of roads, drill pads, powerlines, airshafts, and building sites would require removal of vegetation and disturbance of soils. This would result in increased erosion, which in turn, would result in reduction of water quality. The overall reduction of water quality due to erosion is unknown.

Considering the amount of construction anticipated, the impacts emanating from the lease areas due to erosion would likely not in itself be significant. However, flashflooding or high runoff could intensify these impacts.

The proposed location of the access roads, parking lot, manway, and attendant facilities in the narrow confines of Crandall Canyon would require earth-moving construction activities being located adjacent to a major drainage. Any erosion of disturbed areas at these locations would result in silt being readily available for transportation

by water. Disturbance of the actual drainage channel would greatly intensify this impact. The Crandall Canyon location would also be subject to flashflooding, which creates a hazardous situation and could possibly result in damage to facilities located within the canyon.

Coal waste piles, and gob piles, although not proposed for location on the subject lease would result in part from operations of these leases. Runoff and percolated waters could affect the quality of both surface and underground waters.

Disposal of sewage effluents from the manway entry facilities (bath house, etc.) is a potential problem since there is limited room at the proposed Crandall Canyon location. The Crandall Canyon location cannot accommodate typical facilities such as a containment lagoon and drainage field. This location would also be subject to overland water flow and flashflooding, which could result in the release of effluents directly into surface water. This could result in a serious and hazardous water quality impact.

Surface subsidence occurring under the Price River could result in serious impacts if the effects of the caving conditions were to reach the surface. Tension cracks or faulting would result in altering surface flows or diversion of part of the river underground. This could seriously disrupt surface flow, water useage, and affect water quality due to leaching of broken rock and coal left in the abandoned mine workings.

Approximately 1,000 acre feet of agricultural water has been purchased for the operation of the mine. This represents a depletion of the agricultural land base and could eliminate some lands from agricultural production. These surface waters would also not be available for other uses.

2. Ground water

The possibility exists of the creation of fracture zones due to subsidence occurring within or through underground aquifers. This would alter the flow pattern

of the ground water and result in the diversion of these waters to the underground mine workings. Ground water aquifers may also be intercepted and large volumes of water encountered during mining operations. The interruption of aquifers during mining may result in the lowering of water levels of springs and seeps and a reduction in streamflow could occur. This impact would reduce groundwater availability for other uses. Core drilling could also reduce water flow from springs, if drilled in the immediate vicinity.

Mining on adjacent lands has resulted in some water production; however, the volumes, to date, have not been great enough to require mine drainage. All waters currently produced by the Braztah mine are being used in the mining operation. Future mining may encounter additional water beyond that needed for operation of the mine necessitating disposal of produced waters. There is no water quality data available on mine water currently being produced, however the potential quality may be quite low and the surface release of these waters to surface flow may seriously impact current water quality.

2. Living Components

a. Vegetation

Construction of temporary and permanent roads, drill pads and mudpits, utility lines, ventilation fans, manways and attendant facilities would all require the removal or disturbance of the existing vegetation. Native vegetation would be totally or partially removed or altered on an estimated 135 acres due to anticipated developments. Approximately 25 acres would be used for permanent type installations. The 135 acreage figure represents 2.7 percent of the total acreage for the three leases. Additional impacts to vegetation could be expected to occur from increased off-road vehicle use that would be associated with the exploration, construction, and operation of the mine. The mountain brush and mixed conifer communities would absorb nearly all of the anticipated disturbances.

Activities associated with the construction and operation of the mine would probably increase the incidence of man-caused fires especially in the Crandall Canyon Area. Exploratory drilling would cause a temporary increase in fire hazards only during the period of time when these activities take place.

b. Livestock

Construction of permanent access roads, manways, and exploratory drilling would result in an annual loss of an estimated 8AUM's of livestock forage. When compared to the 1,038 available in the allotment, this impact is not considered significant. However, most permanent structures and major surface facilities associated with the development of the lease would be located in Crandall Canyon where better forage conditions exist. Some hazards to both people and livestock would exist and some accidents could be expected to occur due to increased traffic to and from the manway entries. Loss of livestock water for use in exploratory drilling and due to mining, could reduce the usability of portions of the leases for livestock grazing. Improper disposal of mine water and other wastes could lower water quality presently used by livestock. The total impact to livestock grazing due to loss of water sources cannot presently be estimated.

c. Fish and Wildlife

1. Wildlife (Terrestrial)

The greatest impacts to deer and elk would result from the disturbances and possible harassment caused by the increase in human activity at the work sites and in the general areas on or near the lease areas. While this specific proposal would probably not result in a reduction of the elk or deer population, additional cumulative actions may as alternative habitat areas are reduced. During working hours these activities would be associated with mine work--new construction, car, truck, and train traffic, drilling and other general disturbances.

During non-working hours or non-work days these activities would be of a recreational nature -- off-road vehicle use, sightseeing and hunting.

The county-wide increase in large and small scale mining activity and the related increase in work force living in the Price area, are going to have cumulative negative impacts on wildlife in the Price Canyon area as well as the Central Utah Region in general.

With an increase in work force there would be an increase in the demand for wildlife. An increase in poaching activities could also be anticipated.

There would be an unknown loss of winter range for deer and elk attributed to forage removal and limited tolerance to increased human activity (including noise). Impacts to other wildlife species would be very subtle and may go undetected for several years.

2. Wildlife (Aquatic)

Development of storage and hauling facilities at Castle Gate could increase the amount of dust and coal fines reaching the river. In addition, erosion, resulting sedimentation, and release of effluents and waste water could significantly affect water quality and have a significant impact on the aquatic habitat, which in turn would impact the fish populations in the Price River. Reference is made to the Hydrology Section of this document for a more complete analysis of water quality.

d. Ecological Interrelationships

Full development of the leases would result in the disruption of both the mixed conifer community and the mountain brush community. The actual number of acres that would be disrupted is unknown at this point in time. An estimated 135 acres would be directly and significantly impacted by vegetative clearing and topography altering activities. Such disturbances represent a disruption of plant ecological successional processes which in turn affect associated animal species.

The predator-prey relationship which now exists in the lease areas could be disrupted. Animals sensitive to man's presence, such as the mountain lion, would be forced from the area by extensive development. Additional loss of habitat would occur.

The general environment would be further changed by additional developments and intensification of land use. Ecologically modified Price River and Willow Creek could be expected to absorb additional amounts of sediment and pollution from construction sources, and overall water quality lowered.

3. Human Resources

a. Local Economy and Employment - Socio-Cultural Interests

Considering the scope of the federal action involved in the readjustment of terms for the continuance of the subject leases, this proposal would not directly result in socio-economic impacts since the mining of the coal would proceed under the existing terms and conditions of the lease.

Reference is again made to the technical examination and EAR for the Braztah Corporation Competitive Coal Lease Application Number U-25683.

b. Human Values

1. Scenic and Aesthetic Values

Coal exploration and the associated construction of temporary and permanent access roads and drill pads would result in alteration of the natural scenic values of the area. Earthmoving would create unnatural land forms and bare earth would contrast with the background color. This impact would not be localized since the proposed drill sites are scattered throughout all three lease areas under consideration. Scars to the natural landscape from road and drill pad construction would be highly visible if located on the steep canyon slopes. Such changes to the landscape would be evident for long periods of time and extensive changes of the landscape in the area of the leases may dominate the natural undisturbed scenic values. For example, the recently constructed road in Crandall Canyon is visible from the Price Canyon Recreation Area overlook for its entire length. Generally speaking, the presence of the access roads, building, and other structures, parking lots and powerlines, etc., would represent an unnatural intrusion to relatively undisturbed settings.

Noises resulting from the construction activities, and operation of equipment, blasting, and other human activities such as drilling, increased vehicular traffic and air fan operations would change the relative sense of isolation, especially in Crandall Canyon where long term occupation and activities are planned.

Any earth moving activities that result in removal of the native vegetation and alteration of the natural landforms would change the present scenic values of the area. Dust resulting from these activities may be highly visible under certain conditions and add to the impacts.

The accumulation of trash and garbage along access roads and areas of continuing operation and human activity could be expected to occur and would represent another intrusion into an area which up to this point in time has been free of man-made debris.

2. Recreation

The dispersed type of recreation use in the area has occurred in the presence of mining activity for nearly half a century. Considering the recreational opportunities that the lease areas provide and the limited extent of surface development proposed, no serious conflict or impact is expected to result from these activities. However, the population increase in the region produced by the total coal development would place a substantial added burden of use on recreation areas and facilities throughout the region.

3. Actual Use areas

The present values of the Price Canyon Recreation Site would be diminished by alteration of the scenic values in the visual vicinity of the site. Intensity would depend primarily on the visibility of the access roads and drill pads resulting from exploratory drilling.

Any surface disturbing activities within the recreation site would seriously conflict with the present use of the area. Exploration activities or the construction of permanent type facilities could severely limit the useability and values for which the area was developed.

The creation of hazardous conditions would probably force the closure and abandonment of the site. The dip of the coal beds is northward resulting in the mineable coal being located at its deepest point in this area. Surface expression of subsidence may never be evident due to this condition.

4. Scientific Sites

No impacts are anticipated.

5. Antiquities and Historic Values

The disturbance or destruction of any archaeological site could result in the loss of some or all of the antiquities and any scientific value a site would contain.

6. Natural Areas

No impacts are anticipated.

7. Access

Activity on these leases could result in a limited amount of additional access onto the lease areas. Increased access would result from exploratory roads, mine access roads, off road vehicle use, etc.

8. Existing Facilities

Due to the relatively shallow overburden and multiple seam mining, surface subsidence in Price Canyon resulting from the total removal of coal is a distinct possibility. The extent of the subsidence is difficult to predict. However, extensive damage to U. S. Highway 50 and 6 and railroad facilities could result. The effects of subsidence on the Price River and city water supply facilities would also be difficult to forecast. Hazardous landslides could occur due to settling land surface under the narrow canyons' rock walls and steep talus slopes. Creation of these hazardous conditions could have significant and serious consequences.

B. Possible Mitigating or Enhancing Measures

1. Non-Living Components

a. Climate, Air Quality, Noise

Local air quality should be monitored before, during, and after the construction and operational phases of the proposed developments. Monitoring would enable both Braztah and the Government to determine the effects of the proposed developments on local air quality. Should problems involving air quality develop, it can be recognized and corrected.

Watering down of roads and other affected areas during the construction operations during dry summer months would reduce but not totally mitigate the short-term dust problem.

Noise resulting from the proposed action would be difficult to totally mitigate. Heavy equipment and machinery involved in both the construction and operational phases of the mines should be properly equipped with adequate muffler systems. A suitable noise muffling system should be installed on all airshaft fans to reduce the noise to an acceptable level that will not be audible at the Price Canyon Recreation Site or have a possible effect on elk and other wildlife species. At this point in time it is difficult to determine specific mitigating measures for the expected increase in noise level; although, it may be possible to monitor noise levels before and during construction and operational phases of development. If a problem is observed through this system, it would have to be dealt with at that time.

b. Topography

Impacts to topography could be partially mitigated or minimized by proper siting of permanent facilities to conform to the natural topography and setting with a view towards minimizing earthwork. Upon final abandonment, the impacts from the temporary access roads and drill sites could be reduced by replacing fill material into original cuts and grading of the disturbed areas to conform to the original topography. It is important that existing access roads, trails, etc., be used to the highest extent possible.

The risk of surface subsidence could be reduced or partially mitigated by employing mining methods such as room and pillar mining with retention of sufficient pillar support under areas where potential landslide hazards are present. Maximum coal recovery would have to be weighed against possible surface damage and the creation of potentially hazardous topographic conditions.

c. Geology - Mineral Resources

The loss of coal seams presently uneconomical to mine could be mitigated by leaving sufficient coal in place to prevent caving and subsidence. However, the coal left as support would also represent a loss. This would have to be considered in order to maximize coal recovery from the leases.

Oil and gas drilling could take place after abandonment of the mine operation with proper precaution and application of suitable drilling techniques.

d. Soils

Soil disturbance should be minimized and be limited to the actual area needed to conduct operations and development. Construction sites, roads, drill pads and other soil disturbing activities should be limited as to the size and dimensions needed. This would reduce soil loss and aid in preserving the productivity of the land.

Impacts to the soils could also be minimized by the application of various land treatment practices after disturbance. Mitigating measures should include stockpiling of topsoil for later replacement on disturbed areas not used for permanent installations and operations of the lease. Ripping or tilling of the soil prior to seeding would minimize soil compaction effects. Restriction of unnecessary off-road vehicle use by equipment operators and employees would minimize soil disturbance and compaction. The construction sites should be limited to that necessary for the activities.

Soil erosion could be minimized by mulching, prompt revegetation and construction of erosion control structures such as waterbars, terraces or other devices to divert water from unprotected disturbed areas.

Proper construction including installation of adequate drainage and water diversion devices on permanent roads would aid in reducing erosion and soil loss on the lease areas.

e. Hydrology

Potential impacts to water quality could be reduced by keeping surface disturbance to a minimum and employing suitable land rehabilitation techniques. This would reduce the amount of erosion which in turn would reduce potential impacts to water quality. These mitigating measures have been analyzed in more detail under the soils and vegetation sections of this document.

Disturbance of drainage channels should not be allowed except at designated road crossings. Permanent roads should be designed to prevent flood damage and erosion by installing adequately designed culvert and drainage systems. Roads should be designed and constructed to support the use made of them. These mitigating measures would reduce erosion resulting from inadequate and poorly constructed roads.

Potential impacts to water quality could also be reduced by properly locating and constructing sewage and mine waste disposal systems in areas not subject to flooding. Disposal sites should also be located, constructed and maintained so as to prevent erosion or downward percolation of leached solution and contamination of ground water aquifers. Discharge of waste water resulting from or due to mine operations should not be allowed if it causes degradation of existing surface water quality. In no case should released water exceed the state's standards established for class C water.

The potential impacts to the Price River resulting from mine subsidence could be reduced by the retention of sufficient pillar support and employing suitable mining methods to prevent significant caving of the mine workings.

Since specific information concerning the hydrologic characteristics of the area has never been collected and the potential exists for impacts to occur, a hydrologic study of both the surface and ground water should be made prior to approval of the mining plan.

2. Living Components

a. Vegetation

The loss of the existing vegetation could be partially mitigated by the application of proper rehabilitation measures including providing stable soil conditions for re-establishment of vegetation seeding and planting of native vegetation. However, the replacement of the existing vegetation to approximate former vegetative conditions such as composition and distribution of plant species presently occupying the area is often difficult. Some vegetation would be lost for the term of the mining operation on sites occupied by permanent and semi-permanent structures. These sites could not be rehabilitated until use is terminated.

Control of off-road vehicles and other equipment during construction and operation of the mine would reduce damage to the vegetation.

Loss of vegetation resulting from fire could be reduced by proper precautions and the availability of fire fighting equipment at the manways and on equipment operating on the lease areas. Fire hazards could be reduced by maintaining fire breaks around permanent and semi-permanent facilities from which fires could originate. All internal combustion engines should be equipped with properly functioning spark arrestors or mufflers. This would reduce fire sources on the lease areas.

b. Livestock

Prompt rehabilitation of disturbed areas, primarily drill pads, temporary access roads and other temporary disturbance due to construction would reduce the loss of livestock forage. Revegetation of disturbed areas with forage species would enhance the forage available for livestock use. Reduced speed limits on access roads and fencing of permanent facilities would reduce hazards to livestock as well as personnel. Livestock water should not be used for drilling purposes unless an adequate supply is available to permit use of the adjacent areas for forage. Mine waters and other wastes should be prevented from entering live streams, aquifers, or useable water supplies.

c. Wildlife

Disturbed areas should be revegetated with a large variety of plant species adaptable to the specific site which would provide a wide diversity of food and cover requirements for wildlife.

In order to minimize disturbance of deer and elk during critical wintering periods exploration and drilling activities should be restricted from December 15 through March 15 of each year.

d. Ecological Interrelationships

1. Possible Mitigating or Enhancing Measures

Anticipated impacts to the mixed conifer and mountain brush communities could be reduced by limiting the size and scope of land clearing activities, especially at surface facility sites where most clearing occurs.

Care should be exercised to insure that further modification of the Price River and Willow Creek does not occur as a result of increased sediment and pollution from construction activities. Specific measures are discussed in sections on water, soil, and vegetation.

3. Human Resources

a. Local Economy and Employment - Socio-Cultural Interests

There are no mitigating measures which the Bureau of Land Management can require for the socio-economic impacts resulting from the mining of coal under this proposed action.

b. Human Values

1. Scenic and Aesthetic Features

Properly located access roads, drill pads, and final manway locations should be selected with the objective of minimizing the visual and aesthetic impacts to the lease areas. The permanency of the impact to the local scenery, steep hillside location for any facility, should be avoided.

Visual impacts resulting from the earth moving construction and creation of unnatural land forms could be reduced by replacing earth fill material back into the original cuts and grading disturbed areas to conform to the adjacent natural topography. Prompt rehabilitation and revegetation of such sites with native vegetation would also hasten the return of the disturbed areas to a natural unbroken pattern in the landscape.

The prompt and total removal of all structures and buildings, etc., upon termination of the lease or use of such facilities and regrading and restoration of the sites to resemble former conditions, would reduce the long term impacts to the aesthetics due to the mining of coal.

The impacts to the scenic values could be further reduced by elimination of surface power lines to manway entries. Electric power and communications can be supplied by burial of cables along the access road route.

The painting of all buildings and structures with a color that blends or conforms to the natural background colors would reduce the visual impact of such facilities.

Noise could be partially mitigated by assuring that heavy equipment and machinery involved in the construction be equipped with mufflers and that the airshaft fans are also suitably muffled. Mitigating measures for noise are more completely analyzed under the climate, air quality and noise section of the document.

Periodic garbage and trash removal would reduce the accumulation of trash on the lease area due to human activity.

2. Recreation

The same mitigating measures that are discussed under the preceding scenic and aesthetic section would apply to recreation use.

3. Actual Use Areas(Recreation)

Studies should be initiated to determine the amount of coal that could be removed under the Price Canyon recreation site. Removal of coal

should be allowed only to the extent that no subsidence or other surface damage would occur.

No surface developments or surface disturbances should be allowed within the vicinity of the Price Canyon campground unless it was determined that no adverse impacts or conflicts would occur with the present use.

4. Scientific Sites

No impacts are anticipated. No mitigating measures required.

5. Antiquities and Historical Values

Protection of cultural resources could be achieved by requiring an antiquities inventory of sites proposed for surface entry. Then, if significant values are found, salvage may be conducted or a relocation of the proposed surface activity may be required.

6. Natural Areas

No natural areas were identified. No mitigating measures required.

7. Access

Access to the national resource lands for recreation and other purposes should be allowed across the lease area.

8. Existing Surface Developments

Studies should be initiated to determine the amount of coal that can be removed under Price Canyon and adjacent cliff areas. Removal of coal under this area should be allowed only to the extent that no surface damage either to the existing surface facilities, such as Highway 50 and 6 and the Rio Grande and Western Railroad, or the creation of other hazardous conditions occurs.

C. Residual Impacts

1. Non-Living Components

a. Climate, Air Quality, Noise

If full development occurs on the three leases discussed in this analysis, air quality and noise would be affected to an undetermined degree.

Even if mitigating measures are employed, an unknown amount of temporary dust and noise pollution would result from the construction of surface facilities and roads. However, if mitigating measures are employed as recommended, these impacts would be of less intensity and shorter duration. These short-term impacts would carry over to the operational phase in varied and undetermined degrees of intensity. Noise pollution would result from increased traffic into previously little used areas, e.g. Crandall Canyon. One of the most noticeable and constant sources of noise pollution would result from the vent fans. A possibility exists that even if mitigation is employed as recommended the noise produced by the vent fans scheduled for Crandall Canyon would be noticeable to visitors at the Price Canyon Recreation area. This intrusion could be objectionable since it is not compatible with sounds normally associated with the out-of-doors. Since the present noise levels are extremely low over most of the lease areas the proposed lease activities would raise noise levels above the present conditions. This would be an unavoidable residual impact.

While each individual lease generally contributes little to air quality degradation and noise pollution, in view of the intensive mining the major coal fields in the area can expect in the future, cumulative impacts involving air quality and noise pollution may become significant.

b. Topography

It is virtually impossible to duplicate the original topographic structures and landscape once a disturbance has taken place. The key mitigation effort obviously is to avoid land altering actions as much as possible as even after abandonment and rehabilitation some major visual evidence can be expected to exist. It is estimated that at least 135 acres of land would be cleared and leveled for proposed developments.

The locating of major facilities in the narrow confines of Crandall Canyon would require either alteration of the existing stream channel or cutting steep cuts into the adjoining slopes. Drill site preparation would require the leveling of an area 75 feet by 200 feet for each site. The access road recently constructed by Braztah in Crandall Canyon required several large cuts and fills. An unknown amount of soil erosion would result from these actions which would probably reach and eventually affect perennial stream sources.

Subsidence could be expected to occur in varying degrees of intensity over much of the lease area once the coal is removed. This would be unavoidable if maximum utilization of the coal resource were realized.

c. Geology - Mineral Resources

Oil and gas drilling would be permanently adversely affected by coal mining, and would require special and more costly drilling techniques. The future availability of presently uneconomical coal seams above the sub-seam no. 3 would be lost.

d. Soils

Long-term loss of soil would occur on those sites used for permanent access roads and manway entry sites. Topsoil, containing plant nutrients and micro-organisms would be destroyed. Alteration of soil structure and nutrient cycles would result in reduced fertility over the long term even on areas where topsoil is replaced. Soil structure cannot be duplicated once disturbed. Soil compaction, topsoil disturbance and off-site construction activities could not be totally avoided. It is expected that at least 135 acres of land would be directly disturbed by leveling and clearing operations. An unknown amount of waste rock could be produced by the construction of manway elevator shafts.

e. Hydrology

Control of erosion could only be partially mitigated since this would probably occur on most disturbed areas before rehabilitation and stabilization could be successfully completed. This would be an unavoidable residual impact.

Adverse impacts due to interruption of aquifers resulting from mining could not be avoided. This could affect springs and the availability of ground.

water for other surface uses. This would be largely unavoidable and a residual impact.

Overall reduction of water quality resulting from increased erosion, sedimentation, accidental sewage effluents discharge and escape of poor quality water from mine areas would be unavoidable under certain conditions. Reduction of water quality during construction and operation of the mine would undoubtedly take place which could not be totally mitigated. The overall reduction in water quality which would take place is unknown.

Approximately 1,000 acre feet of agricultural water has been purchased for the operation of the mine. This represents a depletion of the agricultural land base and may eliminate an undetermined land acreage from agricultural production. These surface waters would also not be available for other uses.

2. Living Components

a. Vegetation

The loss of vegetation on the estimated 135 acres of land occupied by the mining facilities would be unavoidable for the life of the mine. Some deep cuts and fill areas may never be successfully revegetated adding to a permanent loss of vegetation. Vegetation loss due to fire and off-site vehicle travel could not be totally avoided. Some species of vegetation could not be replaced on disturbed areas and the former vegetative composition and density could not be duplicated.

An expected increase in man-caused fires could not be totally mitigated and some damage to the vegetation could be expected to occur.

b. Livestock

The area occupied by permanent facilities such as manways and access roads could be considered to be permanently lost during the term of occupation (estimated at 8 AUM's). Even though these areas would eventually be reclaimed upon termination of mining activities, it is anticipated that the former productivity may not be achieved. Some loss of forage from man-caused fires and off-road vehicles use would be an impact that could not be totally avoided. Overall, the loss of livestock forage is expected to be insignificant. Some loss of livestock from accidental death could be expected during the operation of the mine.

The loss of water from springs and other ground water sources, due to coal mining would be an unavoidable impact that could not be mitigated.

c. Wildlife (Terrestrial)

There would be loss of winter range for deer and elk. Some habitat would be physically destroyed or altered and become unavailable because of the presence of man and the noise associated with mining and mine development, this in turn would represent a direct loss of animals due to the limiting of areas capable of supporting these animals. Loss of habitat for other species is unknown but would definitely occur. This is considered an unavoidable residual impact. Water sources for wildlife could be lost. This would further restrict habitat which could be a significant impact which could not be adequately mitigated.

d. Ecological Interrelationships

The mixed conifer and mountain brush communities could be expected to absorb an undetermined amount of impact resulting from the proposed developments. The intensity of this impact would be proportional of the amount of land cleared (approximately 135 acres).

The predator-prey relationship in the lease areas would be disrupted to an undetermined degree. Some animals, sensitive to man's presence, would be forced to leave, such as the mountain lion.

3. Human Resources

a. Local Economy and Employment - Socio-Cultural Interests

No impacts are analyzed since the proposed action of readjusting the terms and conditions for the continuance of the lease would not in itself directly result in socio-economic impacts.

b. Human Values

1. Scenic and Aesthetic Features

The visual intrusion and loss of the sense of isolation on the subject lease areas would occur during construction, exploration activities and operation of the mine facilities in Crandall Canyon.

This impact would be largely unavoidable during the time these activities take place and would extend for the time it takes for the land to rejuvenate itself which would be several years.

The presence of buildings, parking lots, paved roads, and other structures would contrast with the general nature of its surroundings and would represent an intrusion that would be only partially mitigated.

Disturbed areas resulting from earth moving and other construction activities could only be partially mitigated although most evidence of such activities could be significantly reduced. Some steep cut slopes may be impossible to adequately rehabilitate and would remain as an unnatural altered land form.

Removal of structures and rehabilitation of sites upon abandonment of the leases would reduce the long term impacts and natural occurring processes would over time further reduce the impacts of mining. However, some residual evidence of former activities would exist. Some people would consider any evidence of former activities as an unavoidable aesthetic impact and view it as displeasing and objectionable.

Noise resulting from activities associated with mining on the lease areas could only be partially mitigated. An expected increase in noise could be expected which is unavoidable.

2. Recreation

The population increase in the region produced by the total coal development may place a substantial added burden of use on recreation areas and facilities throughout the area.

3. Actual Use Areas (Recreation)

Present values of the Price Canyon Recreation Area will be impacted by the alteration of the scenic values in the visual vicinity of the site. This is exemplified by the visual impact of the access road and drill pads Braztah has recently constructed in Crandall Canyon.

Any surface disturbing activities within the recreation site would seriously conflict with the present use of the area. Exploration activities or the construction of permanent type facilities could severely limit the useability and values for which the area was developed.

The effect of mining caving and subsidence of the land surface on the recreation site is unknown and would depend on the surface expression of such an occurrence which would be difficult to predict. The creation of hazardous conditions would probably force the closure and abandonment of the site. The dip of the coal beds is northward resulting in the mineable coal being located at its deepest point in this area. Surface expression of subsidence may never be evident due to this condition.

4. Scientific Sites

No residual impacts are anticipated since no known scientific sites are located on the lease areas under consideration.

5. Antiquities and Historical Values

Considering the present available knowledge, no significant residual impacts are anticipated.

6. Natural Areas

There are no designated natural areas within the lease areas being considered.

7. Access

Access would be improved in Crandall Canyon. No significant residual impacts on human values are anticipated.

8. Existing Surface Developments

Due to the relatively shallow overburden and multiple seam mining, surface subsidence in Price Canyon resulting from the total removal of coal is a distinct possibility. The extent of the subsidence is difficult to predict. However, extensive damage to U. S. Highway 50 and 6 and railroad facilities could result. The effects of subsidence on the Price River and city water supply facilities would

also be difficult to forecast. Hazardous landslides could occur due to settling land surface under the narrow canyons' rock walls and steep talus slopes. Creation of these hazardous conditions could have significant and serious consequences.

D. Analysis of the Alternatives

1. Administrative Action

a. No Action - Retain Present Lease Terms

If the Lease were not readjusted, the operations would continue under the terms of the existing lease. The readjustment includes the adjustment of rents, royalty rates, production requirements, bonding, and stipulations for operations. Failure to readjust the lease would result in loss of revenue to the government and the conditions and stipulations in lease would not represent current environmental considerations.

b. Partial Readjustment of the Leases

If only portions of the readjustment were performed, and only the rents, royalty rates and production requirements adjusted, the lease would not include the current environmental considerations. Failure to adjust the rents, royalty rate and production requirements would represent a loss of revenue to the government. Failure to periodically adjust the bond requirements could result in inadequate surety not commensurate with lease development and lease requirements.

c. Delay Lease Readjustment

Delaying the readjustment of an inactive lease beyond the 20 year anniversary date would affect only the annual rental due on the lease. This would represent a comparatively minor loss of revenue to the Federal government. Delaying the lease readjustment until a mining or exploration plan is developed and actual operations on the lease occur would result in the specific environmental protection requirements and production requirements not being considered or incorporated in the mining or exploration plans and not in effect during the construction and development of the properties. Revenue would be lost to the government since coal would be mined under outdated lower royalty rates.

d. Revoking Existing Leases

Implementation of this alternative would require Congressional action and may be taken at any time during the life of the lease. The lessee would be

entitled to reimbursement for any leases lost resulting from this type of action. Since no major significant impacts have been identified that cannot at least be partially mitigated, the possibility of this action being taken is remote. Loss of the leases would cause a loss of coal available for mining by the company. This would have to be obtained from other sources to fulfill present commitments. Such actions would reduce the amount of local employment over a long period of time and would require significant changes in the proposed methods of operation. The impact of the mining of the coal within the leases under consideration would be eliminated; however, many of the impacts currently associated with the total Braztah operation would continue probably on a reduced scale and time frame since mining operations could continue on the adjacent private lands.

2. Alternative Lease Development and Operations

a. Alternative mine development and extraction

Long-wall mining methods have been proposed for most of the development which will enable the company to extract the maximum amount of coal. With this method, the possibility of surface subsidence is the greatest. Certain areas of the lease have significant surface activity present and subsidence in these areas would be extremely undesirable. Alternative mining methods such as room and pillar could be employed with retention of sufficient pillar support of the overburden in specific critical areas to minimize the possibility of subsidence. U. S. Highway 6 and 50, the DRG Railroad, and the Price River in the Price Canyon area, would be particularly susceptible to damage if subsidence should occur.

b. Alternative Reclamation Methods

The alternative of no reclamation is not considered since the Utah Mine Reclamation Act and 43 CFR 3041 and 30 CFR 211 Regulations require reclamation of disturbed lands. A wide range of technical methods of reclamation exist that can be employed. Analysis of individual methods is beyond the scope of this document and reference is again made to the "Final Environmental Impact Statement Proposed Federal Coal Leasing Program."

c. Alternative Exploration

Impacts resulting from road and drill pad construction in steep topography could be minimized by utilizing helicopters to haul drill rigs, supplies and personnel to exploration sites. This would reduce impacts to the aesthetics, soil, vegetation, water quality and other surface resources. Some increase in noise can be expected during exploration operations. Helicopter haulage would result in increased operating costs to perform the exploration.

d. Alternative surface developments sites

Selection of alternative sites for the manway and air way, entries, parking lots, access roads, drill locations, etc. could be considered, which may reduce some of the anticipated impacts. The selection of an alternative manway entry and airway sites would have the effect of relocating most of the impacts from one area to another. However, some impacts would be reduced that are inherent in the present confines of the Crandall Canyon site. Impacts would vary in degree from site to site depending on the specific environmental components of a particular area.

E. Relationships Between Short-Term Uses and Long-Term Productivity

The proposed subsurface mining of the areas covered by the lease readjustment would result in long-term effects on the productivity of the surface lands. Roads which are built into such areas as Crandall Canyon would probably continue to exist and would provide access to parts of the canyon not previously accessible to most people. Portions of the construction necessary to build the road would be visible from the Crandall Canyon overlook on the road to the Price Canyon Recreation Area. There would be limited losses of vegetation for both livestock and wildlife where roads and other physical facilities are developed.

The appearance of the Land would be physically changed on 135 acres and in a few cases the attractiveness of the natural appearance would be adversely affected. There would be long-term disturbance of elk and deer as well as other animals in the vicinity of construction and operations areas or other locations where human activity would be concentrated. Some effects on wildlife may persist even after mining has ceased because of the access which has been developed. Existing hydrologic conditions could be permanently altered due to mining and water sources lost and unavailable for other uses and long term productivity reduced.

F. Irreversible & Irretrievable Commitment of Resources

As a result of the readjustment action, there would be no additional commitment of resources since the proposed action is only to readjust terms of the existing leases, not to provide additional lands for lease. According to the mining plan submitted by Braztah Corporation, they propose to produce 1.5 million tons in 1976 increasing the annual production to 6.5 million tons of coal by 1982 and continuing for the estimated 25 year life of the mine operation. These amounts include coal taken from their private lands, existing federal and state leases, and represent an irretrievable commitment of mineral resources once consumed. Minor soil losses can be expected at portal areas and roads, construction sites on the lease, but can be held to a minimum with proper construction and revegetative methods. The total mining operation, when in full production, would use 1,165,000 gallons of water in its operations, or a continuous flow requirement of 1.19 CFS. This water would not be available for other uses such as agricultural production, recreation, wildlife, livestock or domestic use. Off site ground water may be affected by the interruption of aquifers during the mining operation. The manpower, gasoline, oil, and materials used in the construction of the roads and other facilities, mining operations and transportation of the coal would be consumed and lost to other uses. Finally, the long-wall mining method would render useless any coal seams presently uneconomic to mine, such as the subseams No. 1 and 2.

V. RECORDATION OF PERSONS, GROUPS, AND GOVERNMENT AGENCIES CONSULTED

The Moab District issued a news release August 10, concerning the proposed action (a copy is included in the appendix). Written comments were solicited by September 15. The news release went to nine local and state newspapers, three local radio stations, one local TV station, three federal and state agencies, nine private companies and individuals, and two miscellaneous agencies. The only written comment received by this office was from the applicants, a copy has been attached to this analysis.

VI. INTENSITY OF PUBLIC INTEREST

Public interest and involvement has been extremely low. No formal or informal comments concerning the proposal have been received by the Moab District. William H. Haynes, Jr., Executive Vice-President of Braztah Corporation and an associate visited the office in August to discuss lease readjustment procedures with district personnel, and sent a letter dated September 3, 1976, a copy of which is attached.

VII. <u>PARTICIPATING STAFF</u>	<u>Name</u>	<u>Agency</u>
Team Leader.....	W. Miller	BLM
District Team Leader.....	L. Peterson	BLM
Climate, Air Quality.....	R. Bolander	BLM
Hydrology.....	C. Franklin	BLM
Soils.....	D. Mari	BLM
Geology.....	D. Mari	BLM
Topography.....	D. Mari	BLM
Minerals.....	D. Mari	BLM
Vegetation.....	W. Miller	BLM
Wildlife.....	J. Cresto	BLM
	N. Armantrout	BLM
Ecological Interrelationships.....	R. Bolander	BLM
Recreation - Human Values.....	R. Barry	BLM
Human Resources-Sociology.....	R. Barry	BLM
Mining.....	J. Travis	USGS

VIII. SUMMARY CONCLUSION

public interest and involvement has been extremely low. The only formal written comments were received from the applicants. The granting of these coal lease readjustments would result in the recovery of approximately 228 million tons of coal. Approximately 135 acres of land would be disturbed in varying degrees of intensity ranging from light disturbances to scalping and leveling for roads, buildings, etc. Approximately 1,000 acre feet of agricultural water has been purchased for operation of the mine. An undetermined amount of subsidence could occur but is not expected to be widespread. The recreational experience at the Price Canyon Recreation Area could be reduced by developments and associated noise in adjacent Crandall Canyon. The undisturbed condition of Crandall Canyon would be lost.

IX. RECOMMENDATIONS

A. Bonding

It is recommended that a \$5,000 bond would be appropriate for each lease. A \$25,000 statewide or \$75,000 nationwide bond may be substituted in lieu of the separate \$5,000 bonds.

The bond should be adjusted upon approval of any exploration or mining plan to cover all operations conducted or emanating from the operation of the lease. The bond should be in an amount sufficient to satisfy the reclamation requirements of an approved exploration or mining plan and all other terms and conditions of the lease.

B. Stipulations

The following stipulations are recommended to be included as terms for the readjustment of coal lease nos. SL-048442-050115 and SL-071737 and U-25485.

Definition

The area mining supervisor shall mean the authorized representative of the U. S. Geological Survey. The authorized officer of the surface management agency shall mean District Manager, Bureau of Land Management.

1. All operations will be conducted to protect the aesthetic and scenic values. Consideration will be given in site selections to reduce adverse visual impacts. Where alternative sites are available, the alternative involving the least damage to the scenery and other resources shall be selected if it is comparable from a technical standpoint with the proposed development site. Permanent structures and facilities will be designed to be architecturally compatible with the surrounding landscape where possible and will harmonize with the natural landscape and screening techniques will be employed to reduce scenic impacts. The use of a qualified landscape architect may be required by the area mining supervisor in consultation with the authorized officer to design and achieve a final landscape compatible with the natural surroundings. Alteration or removal of the vegetative cover, specifically trees or shrubs, is to be accomplished to achieve the effect of natural-occurring vegetative openings. Construction practices requiring the alteration or modification of the existing topography will be accomplished in such a manner that the modified landscape will be compatible with and graded into the adjoining land form. The creation of unusual, objectionable, or unnatural land forms and vegetative landscape features will be avoided.
2. The lessee will be held responsible for compliance with state and federal laws pertaining to protection of cultural and paleontological values. Prior to entry upon the land to conduct surface disturbance activities, a complete inventory of all cultural and paleontological values of the area to be impacted may be required by the authorized officer, surface management agency, or Area Mining Supervisor. The survey will be completed by a qualified professional approved by the authorized officer and Area Mining Supervisor. An acceptable report of the results and information of the survey will be provided to the authorized officer and Area

Mining Supervisor. If any cultural values are observed during operations they will be left intact and the authorized officer surface management agency notified. The lessee will be required to take such measures as deemed necessary to preserve or avoid destruction of antiquities. This may include an intensive survey and salvage of artifacts, relocation of proposed facilities or other protective measures deemed necessary by the authorized officer to facilitate protection. All costs of the survey and salvage of artifacts will be borne by the lessee and all objects of antiquity salvaged will remain under the jurisdiction of the U. S. Government.

3. The lessee will be required to use existing access roads, trails, or overland travel to the extent possible for the exploration operations on the lease. No temporary roads or drill pads shall be constructed except where topography and/or vegetation conditions prohibit access and exploration activities. Activities employing wheeled or tracked vehicles will be conducted to minimize surface damages. The use of a helicopter may be required by the authorized officer or Area Mining Supervisor to transport equipment, men and materials where potential damage, due to construction activities, is determined to be excessive and unacceptable.
4. The size and dimensions of all sites required for the construction and continued operation of the lease shall be limited only to that area needed to conduct operations consistent with standard industry practices.

The location of all sites used for the exploration and operation of the lease shall be selected where possible to minimize earth moving and surface disturbances. All proposed sites shall be staked on the ground and specifically approved in writing by the Area Mining Supervisor and authorized officer prior to start of construction. All construction and other surface disturbing activities shall be confined to the area delineated and staked.

5. Permanent and semi-permanent buildings and similar surface structures shall be painted a color that blends or conforms to the natural background color of the surrounding area.
6. Where feasible telephone and power lines will be buried or routed through existing underground mine facilities.
7. No trees shall be disturbed or removed on the lease area unless specifically approved in writing by the authorized officer.

8. In order to protect wintering elk and deer, exploratory drilling activity will be allowed only during the period from March 15 through December 15. Exceptions to this limitation in any year may be specifically granted by the authorized officer.
9. The lessee shall perform an adequate hydrologic study to secure baseline data concerning the surface and subsurface water occurring on or flowing through the lease area. The results of the study shall be furnished to the Area Mining Supervisor prior to approval of the mining plan. The study shall provide such data and information as considered necessary by the Mining Supervisor and authorized officer.
10. The lease will comply with all applicable state and federal laws and regulations pertaining to water quality. Waste disposal sites for all solid and liquid wastes containing injurious materials or other potential contaminants shall be located, constructed, and maintained so as to prevent release of such materials into surface water or ground water aquifers. Discharge of waste water resulting from the operation of the mine will not be allowed if it causes degradation of existing water quality.
11. The lessee shall conduct his mining and exploration operations in such a manner as to minimize the effects on water flow or the availability of waters for surface use. Loss of water due to the lessee's operations shall be prevented, replaced, or the situation corrected to the satisfaction of the authorized officer and Area Mining Supervisor. The lessee shall assume full responsibility and liability for damages due to the loss of surface waters resulting from the mining or other operations conducted under this lease.
12. Water shall not be obtained from sources located on the federal lands for drilling purposes or other operations of the mine unless the authorized officer and Area Mining Supervisor determines that an adequate supply is available for other surface uses.
13. Disturbance of drainage ways and high erosion hazard areas shall be kept to a minimum. Mine facilities and waste disposal sites, including sewage, shall not be located within any floodplain or channel of any water course or any area subject to flooding. Drainages shall not be blocked nor shall the lessee cause, through his operations, the siltation or accumulation of debris in the drainage channels. All damages to drainages resulting from the operations of the lessee shall be corrected to the satisfaction of the authorized officer.

14. Proper precautions will be taken at all times to prevent and suppress fires. The lessee will be held responsible for suppression and rehabilitation costs for any fires on the national resource lands caused by the negligence of his operators, employees, contractors, or subcontractors. Fire lines and clearing shall be built and maintained in the vicinity of stationary machinery, portals, vents, and shafts or other facilities where fire could originate. All internal combustion engines shall be equipped with properly functioning spark arresters or mufflers. No refuse burning will be permitted on the lease area. The lessee shall maintain suitable fire fighting hand tools at each work site, in sufficient numbers to equip all workmen. Tools shall be maintained solely for the purpose of fire fighting.
15. All garbage and foreign debris will be removed to an authorized dump site at least weekly or as otherwise specified. All access routes and areas of use will be kept clean of all garbage and foreign debris. Sanitary facilities for all solid and liquid waste disposal will meet all state, federal, and local codes and regulations. Disposal of all vegetative and other material cut, uprooted or otherwise accumulated will be disposed of as specified by the Area Mining Supervisor in consultation with the authorized officer. All areas of use will be kept clean and free of debris. The lease area shall be maintained in a neat-appearing condition at all times, consistent with the operation of the lease.
16. All access, haul, and other support roads and trails shall be constructed and maintained in such a condition so as to control and minimize channeling and other erosion problems. All roads shall be constructed to standards adequate to support the anticipated use of such roads. The lessee shall state specifically within the approved mining and/or exploration plan all construction methods, standards, and specifications including support facilities such as bridges, culverts, and cattle guards, etc., to be employed in the construction or use of any road or trail. Drainage crossings shall be made only at locations approved or designated by the Area Mining Supervisor in consultation with the authorized officer. The Area Mining Supervisor in consultation with the authorized officer may approve or set such standards that are deemed necessary to minimize disruption of the surface resources and/or maintain the reclamation potential.

17. All survey monuments, witness corners, reference monuments and bearing trees must be protected against destruction, obliteration or damage. Any damaged or obliterated markers must be reestablished at the lessee's expense, in accordance with accepted BLM survey practices as set forth in the Manual of Surveying Instructions. A complete record of the monumentation and the methods used in re-establishment will be furnished to the Chief, Branch of Cadastral Survey at the appropriate State Director's Office, BLM.
18. When appropriate and prior to any operations on the lease, the lessee will make application to the authorized officer of the surface management agency for a right-of-way permit pursuant to 43 CFR 2811, for the purpose of providing access to the lease area.
19. No explosives may be used without prior written consent of the area mining supervisor in consultation with authorized officer.
20. The lessee will be required to establish a noise monitoring system adequate to measure noise levels resulting from operation of the mine at the Price Canyon recreation area and known elk and deer wintering areas. The objectives of this monitoring shall be to establish specific minimum acceptable noise standards for these areas.
21. In the absence of specific noise pollution standards, the lessee is responsible for keeping noise at or below levels safe and acceptable for humans and wildlife. Noise control shall be considered an integral part of any activities under the lease. All vehicles, heavy equipment and machinery used on the lease area shall be properly equipped with an adequate muffler system. An acceptable noise baffling system shall be incorporated into the operation of all airway fans. Natural topography and vegetation may be used if adequate noise abatement can be achieved.
22. The lessee may be required to establish and maintain an air quality monitoring system to monitor surface air quality before, during and after any construction, or other surface operations conducted on the lease. The lessee may be required by the Area Mining Supervisor or authorized officer to correct any air quality problems resulting from the lessee's activities.
23. The lessee shall provide the necessary dust control measures to suppress air pollutants resulting from the construction or operation of roads, work areas, processing

operations, and other actions or functions that could cause degradation of air quality.

24. The lessee will be required to establish a surface subsidence monitoring system to measure the effects of the underground mining activities on the land surface. A satisfactory series of monitoring points shall be established on the lease area. The monitoring shall be conducted by a method and in a manner approved by the Area Mining Supervisor. The results of the monitoring shall be reported periodically to the Mining Supervisor and authorized officer. The Area Mining Supervisor may require the lessee to employ such measures and precautions deemed necessary including mining methods extent and manner of coal extraction to assure that neither damage to surface facilities, loss of perennial streams occurs nor hazardous conditions are created.
25. The area mining supervisor in consultation with the authorized officer shall approve or may prescribe such construction and rehabilitation methods and practices as determined to achieve desired reclamation results. Reclamation is critically site specific; therefore, such prescription as issued by the authorized officer together with the Area Mining Supervisor may include determination of the final topography, drainage system, revegetation methods, seed mixtures, soil treatments and amendments, water control devices, segregation of spoil materials, surface manipulations, waste disposal and other practices deemed necessary to successfully rehabilitate disturbed areas.
26. The topsoil shall be stripped from all areas where soil disturbance is necessary and stockpiled in such a manner and place that will allow easy restoration to the disturbed area. The topsoil will be returned to a minimum depth of 4" on all areas, including road cuts and fills that are not required for the continued basic operation of the lease.
27. Except for solid rock faces, and excavations used for impoundment of water, those areas disturbed by operations conducted by the lessee shall be graded to a natural contour and revegetated when their use is no longer required by the operator. Final grading of backfill areas, waste piles, and other unconsolidated materials shall be so performed so as to present a surface susceptible to revegetation and to a desired land form.

All areas shall be seeded with a seed mixture containing at a minimum six species of grasses, forbs, and shrubs native to the lease area. The authorized officer will specify the seed mixture, method and rate of application for specific sites. Seeding shall be done during the first fall upon final termination of use. Seeding shall be repeated for a period of five consecutive years or until a satisfactory stand of vegetation is obtained that is acceptable to the authorized officer.

28. Sludge pits, and other open containments that are used during the exploration or operation of the lease for the storage of mud or hazardous materials, shall be immediately filled and graded to conform to adjacent terrain upon termination of use. If immediate rehabilitation is not considered desirable such areas shall be adequately fenced to minimize hazards and prevent access to humans, livestock, waterfowl, and other wildlife until final rehabilitation is completed. Exploration holes shall be permanently sealed and filled as directed by the Area Mining Supervisor upon completion of operations.
29. All support facilities structures, equipment and similar developments will be removed from the lease area within two years after the final termination of use of such facilities. Unless a longer period of time is specifically approved by the Area Mining Supervisor after consultation with the authorized officer. Areas occupied by such facilities will be rehabilitated in accordance with an approved reclamation plan to a productive land use or to a state approximating former conditions as specified by the area mining supervisor in consultation with the authorized officer.

This Stipulation is Specific to Lease No. SL-071737 & U-25485.

30. No surface developments or disturbance will be allowed within the Price Canyon Recreation Area located in NWNE Section 28 T.12S., R.9E. The lessee shall not construct any access road, worktrail, create any earth cuts or fills, erect any structure or other facility if it can be viewed from the Price Canyon Recreation Area. If no major adverse impacts or permanent damage to the aesthetics will result from proposed operations, development or exploration of this area; exceptions to these restrictions may be granted when specifically approved in writing by the authorized officer and Mining Supervisor.

This Stipulation is Specific to Lease No. SL-071737

31. Underground mining operations shall be conducted in such a manner to assure that subsidence due to mining does not occur under the Price Canyon area including the adjacent cliffs, or affect established surface facilities, perennial streams or other areas located on the lease that may be identified in the future by the Area Mining Supervisor or authorized officer.

APPENDIX

BLM News Release

Distribution of News Release

Letter from Braztah Corporation

EAR Worksheet

Land Report Title Pages

Memo for Deputy Area Mining Supervisor

Memo from Mining Engineer

Office of the Area Mining Supervisor
Conservation Division
8426 Federal Building
125 South State Street
Salt Lake City, Utah, 84138

March 13, 1975

Memorandum

To: District Manager, Bureau of Land Management, Price, Utah

From: Mining Engineer

Subject: Technical Report SL-071737, Spring Canyon Coal Company
Braztah Corporation, Sublessee

This is in reply to a recent telephone request, by your geologist, Miss Carol Molnia, concerning our participation in a field inspection of subject coal leasehold. This memorandum will follow the format of the BLM Technical Examination Checklist, Form 3040-3, as it involves the U. S. Geological Survey, and the regulations contained in 43 CFR, Part 23, pertaining to the readjustment of terms on coal lease SL-071737.

An attempt to make an onsite examination of the leasehold was tried on Thursday, February 27, 1975, but due to depth of drifted snow, no visual observation was made of that area of the leasehold containing Crandall Canyon. It is believed sufficient knowledge is known of the surface to complete a technical report. Miss Carol Molnia, geologist, and Mr. Douglas Thurman, Natural Resource Specialist, of your office, and Mr. Roy Full and Mr. Sam Quigley, representing the lessee, accompanied the writer.

I. Background

The leasehold is located in T. 12 S., R. 9 E., SIM, and cuts Price Canyon about 2 miles northwest of the present Utah Power & Light powerplant at the south edge of abandoned Castle Gate townsite. The leasehold contains most of Crandall Canyon and its tributaries.

The lease was issued to Royal Coal Company, dated September 1, 1950, and then containing 2,543.89 acres. Since then the acreage has eroded due to partial assignments and presently consists of 1,960 acres, and as of July 1, 1974, through assignment, Spring

Memo to District Manager, BLM, Salt Lake City, Utah, Subj: Technical Report SL-071737, Spring Canyon Coal Company

Canyon Coal Company is the lessee. Presently Braztah Corporation has been putting down exploratory coal holes and has an approved sublease from Spring Canyon Coal Company.

Actual mining stopped in the Royal mine No. 2 in April 1962. The Peerless slopes abutting the highway were sealed off and the mine has remained idle. Presently Braztah Corporation has drilled sufficient holes on the leasehold and submitted a tentative mining plan for the resumption of mining but through new portals off Hardscrabble Canyon about 2 miles from Martin on Highway 50 and 6.

The exploratory drilling to date indicate there are numerous coal seams which can be mined. The Royal mine was principally on the Kenilworth or "D" seam involving portions of the S $\frac{1}{2}$ secs. 26 and 27. The New Peerless mine had its workings in "B" seam and in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, and the level was reached by rock slopes off Price Canyon. The mining plans submitted indicate the projected mining would be conducted in the following seams, "D", "B", "A", and Sub-3. Other seams such as Sub-1 and Sub-2 show promise but there appears to be a lack of continuity and the actual seams to be mined, over the entire leasehold with our present knowledge, are not conclusive. Actual mining will enhance the picture, and no doubt the entire leasehold will have at least three minable seams. The partition between the possible minable seams is sufficient for methodical mining. It can be assumed that the leasehold contains adequate tonnage of high quality coal to furnish its full share of the contemplated production from Braztah properties.

The future of all properties, of which SL-071737 is but a part, appears bright. Presently Braztah is producing at a rate of 40,000 tons of coal a month. This production is coming from the Carbon Fuel No. 3 mine, which is developed in Sub-3 seam, the lowest in the coal series. When mining plans are approved and the new construction and development well under way, the production will be stepped up to hit 6 million tons per year within a 6-year period, or by 1980 or 1981. Production is currently coming from continuous miner units on room and pillar operations and from development. Longwall development is scheduled for the last half of 1975. If development proves the advisability of

Memo to District Manager, BLM, Salt Lake City, Utah, Subj: Technical Report SL-071737, Spring Canyon Coal Company

more longwall units, it is planned to have a total of five such units in operation.

The coal analysis from drill hole samples and as mined from underground proves up the coal to be bituminous rank with a Btu content from 12,000 to 13,500. The sulfur content would average less than .5 percent, and the contained ash about 9 percent. If present overall conditions prevail, Braztah Corporation has the potential of being our first lessee to maintain a yearly production in excess of a million tons of coal annually.

Supervision of the mining operations by personnel of this office will be somewhat of a problem as mining must follow certain sequences to prevent loss of upper seams, if second mining is carried on in lower seams. To conserve coal, and mine with regards to safety, approved methods of mining must be observed and followed.

The depth from the surface to the coal varies, but it should be from 600-1,600 feet. Accordingly, there should be but very minor occupancey of the surface. In all probability, some surface subsidence would occur. It will depend not only on the distance from the seams to the surface, the amount of coal removed under the methods of mining and the stratigraphy of the formations above the coal seams. Due to this it would be unwise to construct permanent or semipermanent structures on the surface. Also precautions must be taken to prevent subsidence of such structures as highway, railway, and Price River drainage now cutting areas of the surface on the leasehold. Such subsidence would not affect fauna or drainage.

III. Public Health And Safety

Toxic Materials

No toxic solutions, should be generated in the exploration from surface drilling, or underground mining operations, which would enter established drainage. The coal is low in sulfur, less than .5 percent and acid water produced by mining should not be deleterious.

Memo to District Manager, BLM, Salt Lake City, Utah, Subj: Technical Report SL-071737, Spring Canyon Coal Company

Fire Hazards

There should be no fire hazards as a result of drilling exploration or mining. Surface structures, which usually generate fire hazards, are not contemplated. The overall operations are subject to both State and Federal coal mining regulations which guard against fires.

Landslide Potential

There appears to be no existing or potential landslide danger. The topography, other than the valley floor, has high relief, and has no possibilities than that offered by similar areas in the same vicinity.

Hazardous Exploration or Mine Workings

The distance to the coal seams from the surface, being from 600 to 1,600 feet, could cause minor surface subsidence. As no surface mine openings are contemplated there would be no hazards to humans or cattle. All surface exploratory drilling would be adequately supervised and thus prevent hazardous conditions.

Dust

All dust, generated by surface exploratory drilling, would meet environmental requirements under both State and Federal regulations.

Flooding

No activities contemplated would cause or contribute to flooding. It is expected that surface conditions, outside of drill site pads, will not be disturbed.

Waste Disposal

As underground mining is contemplated, and mining plans so indicate, with no surface openings, waste disposal would be no problem.

V. Environmental Considerations And Reclamation Requirements

Bonding Requirements

The \$25,000 (Statewide bond) issued by Argonaut Insurance Company is considered sufficient. If, in the future, such a bond is considered insufficient, we can recommend the proper increase.

Ernest Blessing

cc: Reston

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OFFICIAL FILE COVER

LOCAL OFFICE
FILE DESIGNATION

CATEGORY	COMPONENT
----------	-----------

(Fill in only if jacket is to be filed by category - component)

S.F. No.

File Title:

PERIOD COVERED

DISPOSAL AUTHORITY

From:

CATEGORY

COMPONENT

To:

DISPOSAL
AUTHORITY

Retain in office

years

Transfer date

Retain in FRC

years

CROSS REFERENCES

IMPORTANT

This file constitutes a part of the official records of the Bureau of Land Management and should not be separated or papers withdrawn without notifying the person in charge of the files.

RECORD OF DECISION AND
FINDING OF NO SIGNIFICANT IMPACT

EA Log No. <u>UT-066-89-11X</u>	Lease or Serial No. <u>SL-048442-050115</u>
Project <u>Lease Readjustment</u>	Project Secs. <u>1, 3, 4, 10, 11, 12</u>
Applicant <u>Blackhawk Coal Company</u>	Location <u>T. 13 S., R. 10 E. SLB&M</u>
Address <u>Helper, Utah</u>	County <u>Carbon</u> , Utah
BLM Office <u>Price, Utah</u>	Phone No. <u>(801) 637-4584</u>

RECORD OF DECISION

Decision: The following is the decision of the Bureau.

Rationale:

Environmental Considerations: I have considered the environmental consequences of this decision as documented in the accompanying environmental assessment or categorical exclusion, referenced above. Except as noted in the Rationale, all environmental considerations have been adequately addressed in the accompanying document.

STIPULATIONS

This decision incorporates by reference the attached stipulations. The stipulations have been developed to mitigate adverse environmental impacts which may result from the action permitted by this decision.

FINDING OF NO SIGNIFICANT IMPACT
(Does not apply to categorical exclusions.)

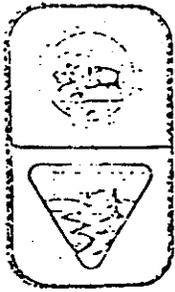
Based on the analysis of potential environmental impacts contained in the accompanying environmental assessment, referenced above, I have determined that impacts are not expected to be significant. Therefore an environmental impact statement is not required.

Mark S. Baird
Area Manager

8 Feb 86
Date

Wang 11490

UT-060-1790-2
July 1986



UTAH

BLM
BUREAU OF LAND MANAGEMENT

UNITED STATES

FOR RELEASE
CONTACT

Immediately
John W. Coleman

News Release

DEPARTMENT OF THE INTERIOR

AUG 10 1976

The Bureau of Land Management, has prepared a draft Environmental Analysis Report and Technical Examination for the Franklin Real Estate Company on three coal lease readjustments, according to S. Gene Day the Moab District Manager.

The Braztah Corporation has been designated as the operator of the leases being readjusted in addition to other holdings that are contiguous to the subject lease area. The three leases, which include 4,067 acres, are located approximately two miles north of Helper, Utah in Price Canyon. The mining is underground. New proposed facilities include a two-mile all weather access road in Crandall Canyon, two man-way entries and air-way entries, a hoist house, a bath house, storage yard, parking facilities and utility systems.

This report and additional details on the Franklin Real Estate Company lease readjustments are available in the Moab District Office, 125 So. 2nd West, Moab, Utah. Written comments may be submitted by September 15.

TO : All Resource Areas

FROM : District Manager, Moab

SUBJECT: Distribution of News Releases

Date:

News releases welcoming new employees to a particular Area Office should be considered as more than just local news. As a district, new employees regardless of their location assignment, should have district wide coverage. Likewise, discretion should be used on all news releases that might have greater than local interest. The following list of newspapers, radio stations, etc. should be included in your distribution list:

- 30x 428
- x The Times Independent - 35 E. Center, Moab, Utah 84532 Tuesday 2:00 pm
 - x San Juan Recorder - ~~926 E. Highway 666~~, Monticello, Utah 84535 Monday 10:00 am
 - x Dove Creek Press - Dove Creek, Colorado. 81324
 - x Ms. Janet Wilcox - Blanding, Utah 84511 (Deseret News correspondent)
 - x KURA Radio - 83 N. Main, Moab, Utah 84532
 - x KUTA Radio - N. Highway 163, Blanding, Utah 84511
 - x Town T.V. - Mr. Les Erbes, 190 Birch, Moab, Utah 84532
 - x The Sun Advocate - 76 W. Main, Price, Utah 84501 Tuesday 2:30 pm
 - x Helper Journal - 182 South Main, Helper, Utah 84526 Monday
 - x Emery County Progress - Castle Dale, Utah 84522 Monday 2:30 pm
 - x KOAL Radio - Price, Utah 84501
 - x Ruth Chase - Monticello, Utah 84535 (Tribune correspondent)
 - x W O McArthur - D 2117 Sentinel P.O. Box 1103 Moab UT 84532

This list is not complete and other names could be added to it.

John Starnes, Sr., District Manager

Major Items

✓ Washington News Service, Inc

9908 Hillridge Dr

Kensington, Maryland 20755

Sent copies to S.D. (U-9)

Sent Copies to : Grand
Price
MICO

Basic
Municipal Corp.
Bldg.
Utah 84501

American Coal Company
24 East 200 North
Huntington, Utah 84528

Roger A. Markle
Valley Camp Coal Company
P. O. Box 507
Clear Creek, Utah 84517

~~Area Supervisor
U.S. Geological Survey
Conservation Division
8426 Federal Bldg.
Salt Lake City, Utah 84138~~

Area Mining Supervisor
U.S. Geological Survey
Conservation Division
8426 Federal Bldg.
Salt Lake City, Utah 84138

Carbon County Commission
Courthouse Bldg.
Price, Utah 84501

Natural Resources
Wildlife Resources
Railroad Ave.
Utah 84501

Emery County Agent
Castle Dale, Utah 84513

MESA
Drawer J
Price, Utah 84501

Forest Service
Salt National Forest
Main
Utah 84501

Mr. Robert H. Hassell
Sierra Club - Uinta Chapter
P. O. Box 437
Panguitch, Utah 84759

Sierra Club, Uinta Chapter
8 East Broadway, Suite 61
Salt Lake City, Utah 841

Environment Center
Highway, Suite 610
City, Utah 84111

State of Utah
Div. of Oil, Gas, & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Soldier Creek Coal Company
P. O. Box 1030
Price, Utah 84501

Mountain Coal Company
Utah 84522

Co-op Mining Company
Box 277
Huntington, Utah 84528

Braztah Corporation
Box 506
Helper, Utah 84526

Coal Company
Utah 84528

Peabody Coal Company
301 N. Memorial Drive
St. Louis, Missouri 63102

U.S. Steel Corporation
Box 807
East Carbon City, Utah 84

Coal Company
South Temple
City, Utah 84111

Intermountain Exploration Co.
Box 473
Boulder City, Nevada 89005

Plateau Mining Company
Box 539
Price, Utah 84501

Coal Company
Utah 84654

Southern Utah Fuel Company
Box 386
Salina, Utah 84654

Natural Gas Corp. of Calif.
Room 1324, 245 Market St.
San Francisco, Calif. 941

Gilbert, Jr.

Utah Power & Light Company

Zion's First Nat'l. Bank

Salt Lake City, Utah 84111

Consolidation Coal Co. ✓
43
Technological Center
Glenwood, Colorado 80110

Shirl McArthur
55 East 2nd North
Huntington, Utah 84528

Albert Spensko
12 South 5th Avenue
Helper, Utah 84526

Land Creek Coal Company ✓
55 Harrodsburg Rd.
Huntington, Kentucky 40511

Deseret News
Salt Lake City, Utah 84101

Editor
Sun Advocate
Price, Utah 84501

Weekly Shopper
East Main
Price, Utah 84501

Editor
Emery County Progress
Castle Dale, Utah 84513

Editor
Helper Journal
Helper, Utah 84526

Salt Lake Tribune
Business & Financial News
100 S. Main Street
Salt Lake City, Utah 84111

Coal News ✓
Coal Building
1130 17th St., NW
Washington, D. C. 20036

KOAL Radio Station
Box AC
Price, Utah 84501

Telonis
Angelo Georgedes
100 N. 3rd East
Price, Utah 84501

Earl Thomas
c/o A. J. Theis
3018 Nottingham Blvd.
Houston, Texas 77005

Helen & Nick Marakis
Box 805
Price, Utah 84501

ventilation fan, powerlines, water supply, and sewage waste disposal facilities, as set out in the EAR, necessary, planned, or likely, at this location in the foreseeable future as the mining plans are presently drawn. It is possible and likely that an intake airshaft might be required in this area. The surface manifestation of this intake airshaft, if constructed, would appear only as a possible reclaimed excavated material disposal area and the fenced opening. No human activity or operating equipment is associated with such an installation, once completed.

As stated in the EAR, an exploration and development drilling program is being conducted on the coal lands associated with the Braztah coal operations. This program has been in progress since 1971. Pursuant to such program, application was made in February, 1976, to the Geological Survey for approval of access and drilling sites involving three locations in the Crandall Canyon area, to be completed during the 1976 drilling season (summer). Field examination of the requested access routes and drill sites was conducted on May 6, 1976, by representatives of the Geological Survey, Bureau of Land Management (BLM), Braztah Corporation, and American Electric Power Service Corporation (AEP), affiliate of Franklin Feal Estate Company. As an alternative to access and drilling as proposed across and on Federal surface lands, Braztah and AEP were advised that if the activities were confined to privately owned surface, Federal approval would not be necessary, and this course was recommended in anticipation of encountering delay in securing Federal approval of the application. Verification that this course would be followed was given to BLM and Geological Survey personnel upon their request after the May 6 field examination. The comment was made by said personnel at that time that that portion of the February application could then be deleted. Unfortunately, a misunderstanding has apparently developed in regard to this drilling activity as evidenced by related comments in the EAR. Braztah Corporation and AEP are most anxious to correct any inadvertant activities and to proceed with appropriate remedial action. A meeting with the Geological Survey and BLM to determine such action was held on September 3, and a reclamation program following drilling of the three holes agreed to during the course of such meeting and field examination of the sites and access roads.

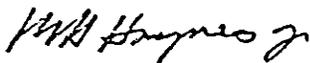
Considerable concern is expressed in the EAR as to the effects of subsidence on existing surface developments. Contrary to the statements in the "EAR" concerning "relatively shallow overburden", mineable seams occur at some considerable depth in the Price Canyon area of the subject lease. Plans for extraction of the coal below the Price Canyon surface developments

Mr. S. Gene Day
September 3, 1976
Page 3

are designed to prevent damage from such subsidence. The recommendations of the Geological Survey regarding subsidence in this area have been incorporated in Braztah's mining plan.

We would be pleased to discuss our operations, both present and planned, with your staff or other interested parties at your convenience.

Yours very truly,



WHH:ga

cc: Jackson W. Moffitt
Area Mining Supervisor
United States Department of the Interior
Geological Survey

Alex Sanders
American Electric Power Service Corporation
68 South Main Street
Helper, Utah 84526

Howard Bressler, Esq.
Braztah Corporation
10880 Wilshire Boulevard
Los Angeles, California 90024

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAND REPORT TITLE PAGE

State Utah		District Moab	
County Carbon		Resource area Price	Planning Unit Wattis
Type of Action Coal Lease Readjustment			Serial Number SL-048442 -050115
Applicant's name Franklin Real Estate Co.		Address (include zip code) 2 Broadway New York, NY 10004	

Date(s) of examination

LANDS INVOLVED

TOWNSHIP	RANGE	MERIDIAN	SECTION	SUBDIVISION	ACRES
13 South	10 East	S.L.M.	1	SW1/4	
			3	S1/2N1/2, S1/2	
			4	Lots 1, 2, 3, 4, S1/2N1/2, N1/2S1/2	
			10	N1/2, NW1/4SW1/4	
			11	N1/2, SE1/4	
			12	W1/2, SE1/4, S1/2NE1/4, NW1/4 NE1/4	

Purpose of report
Coal Lease Readjustment

Prepared by	Title	Date of report
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAND REPORT TITLE PAGE

State Utah		District Moab	
County Carbon		Resource area Price	Planning Unit Wattis
Type of Action Coal Lease Continuance and Readjustment			Serial Number SL-071737
Applicant's name Franklin Real Estate Co.		Address (include zip code) 2 Broadway New York, NY 10004	

Date(s) of examination

LANDS INVOLVED

TOWNSHIP	RANGE	MERIDIAN	SECTION	SUBDIVISION	ACRES
12 South	9 East	S.L.M.	26	W1/2NE1/4, NW1/4, N1/2SW1/4, NW1/4SE1/4	
			27	N1/2, N1/2S1/2	
			28	N1/2, SW1/4, W1/2SE1/4, NE1/4 SE1/4	
			29	NE1/4NE1/4, S1/2N1/2, S1/2	
				Total Acreage:	1,960.00

Purpose of report
Coal Lease Readjustment

Prepared by	Title	Date of report
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

LAND REPORT TITLE PAGE

State Utah	District Moab	
County Carbon	Resource area Price	Planning Unit Wattis
Type of Action Coal Lease Readjustment		Serial Number U-25485
Applicant's name Franklin Real Estate Co.	Address (include zip code) 2 Broadway New York, NY 10004	

Date(s) of examination

LANDS INVOLVED

TOWNSHIP	RANGE	MERIDIAN	SECTION	SUBDIVISION	ACRES
12 South	9 East	S.L.M.	30	Lots 2, 3, 4, S1/2NE1/4, SE1/4NW1/4, E1/2SW1/4, SE1/4 Lot 4	
			31		
				Total Acreage:	543.42

Purpose of report

Coal Lease Readjustment

Prepared by	Title	Date of report
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United States Department of the Interior

GEOLOGICAL SURVEY

Office of the Area Mining Supervisor
Conservation Division
8426 Federal Building
125 South State Street
Salt Lake City, Utah, 84138

April 23, 1976

Memorandum

To: District Manager, Bureau of Land Management
Moab, Utah

From: Deputy Area Mining Supervisor

Subject: Technical Examination of SL-051279-063188, California
Portland Cement Company and SL-071737, SL-048442-050115
for Coal Lease Continuance, Braztah Corporation, Operator

At the request of your former geologist, Miss Carol Molnia, an onsite field inspection was made March 23, 1976, on coal leases SL-051279-063188 and SL-071737. The inspection team consisted of 12 BLM personnel and the writer of this memorandum. No attempt was made to inspect SL-048442-050115, as the lease has not been active since April 1972. All three leases are due for a readjustment of terms for a continuance.

The group first inspected the Soldier Creek Coal Company belonging to the California Portland Cement Company on lease SL-051279-063188. This lease was due for readjustment January 4, 1975.

Don Ross, Vice President and General Manager of Soldier Creek Coal Company, was interviewed by the inspection group near the mine, opposite the preparation plant. Ross reported much time and money had been spent on reopening the mine. The Bureau of Land Management concurred with the approval of the surface development and operation plan November 12, 1975. Ross said the contracting firm employed by the company had driven two new rock slopes from the inside of the mine to the outside. Considerable cleanup work with roof bolting has been accomplished. The area on the surface has been expanded to construct a new substation as well as new loading and storage facilities. Ross said they hope to get into production by the middle of summer and gradually increase the work force to 150 miners by 1977. He stated their goal was to mine 4,000 tons of coal per day, with two operating shifts, by August 1977.

Attached is a copy of an Environmental Impact Analysis prepared by this office in November 1975 for coal lease SL-051279-063188.

APR 26 1976

SEARCHED	INDEXED
SERIALIZED	FILED
APR 26 1976	
FBI - MOAB	

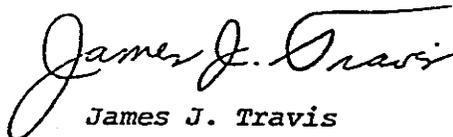
We received the Mining and Reclamation Plans from Braztah Corporation April 6, 1976. A copy of these plans was sent to you on April 14, 1976. There is no mention in the present plans of any anticipated development on lease SL-048442-050115. The lease was due for readjustment of terms November 1970.

Coal lease SL-071737, operator, Braztah Corporation, was due for readjustment of terms September 1, 1970. An onsite inspection was made of the fee surface facilities at the new mine in Sowbelly Canyon, known as Braztah No. 5 mine. Also, an inspection was made on SL-071737 in Crandall Canyon. Mr. Laine Adair, draftsman for Braztah Corporation, accompanied the group and answered questions on the development of the coal lease. In Crandall Canyon on SL-071737, the coal is owned by the Federal Government but the surface is privately owned.

Adair mentioned during the inspection the possibility that Braztah Corporation may wish to construct ventilation and/or personnel and material shafts in Crandall Canyon. In the recently submitted plans, one possible location is T. 12 S., R. 9 E., SLM, NE $\frac{1}{4}$ sec. 28; the other, same township and range, is shown in SE $\frac{1}{4}$ sec. 29. Adair predicted that no more than two acres would be disturbed. A bathhouse, fan installation, and a parking lot for 50 cars may be required. Approximately 100 men per day would be using the facilities on a two shift basis. Let me emphasize that to date no firm plans have been submitted to construct the proposed facilities. Mr. W. H. Haynes, Jr., Executive Vice President of Braztah Corporation, informed the writer that "we may just want a fan for ventilation as shown on the map. At this point we just don't know."

Attached also is a copy of the Technical Examination made by this office and Miss Carol Molnia on coal lease SL-071737 in February 1975.

We trust the foregoing facts meet your requirements. If not, please contact this office and we will be glad to furnish all possible help.


James J. Travis

Attachments

cc: Leon Berggren, BLM, Price, Utah.

RECORD OF CATEGORICAL EXCLUSION (CX) DETERMINATION

EA Log No. UT-066-89-11X Lease or Serial No. SL-048442-050115

Project Lease Readjustment

Applicant Blackhawk Coal Company Project Secs. 1, 3, 4, 10, 11, 12
 Location T. 13 S., R. 10 E. SLB&M

Address Helper, Utah County Carbon, Utah

BLM Office Price, Utah Phone No. (801) 637-4584

CX Number from 516 DM 2, App. 1 (5/11/84) or 516 DM 6, App. 5.4 (9/26/83) _____

Description of the Proposed Action: Lease SL-048442-050115 Readjustment

SUMMARY OF FINDINGS

The proposed action is categorically excluded from environmental assessment (EA) or environmental impact statement (EIS) preparation under 516 DM 6, Appendix 2 or Appendix 5. The proposed action has been reviewed against the ten criteria for an exception to a categorical exclusion (CX), as identified in 516 DM 2.3 A(3). The proposed action does not fall under any exception and is therefore categorically excluded from further assessment.

DOCUMENTATION OF CX EXCEPTIONS

The proposed action would not create adverse environmental effects under the CX exceptions, unless as noted. The proposed action may:

- | <u>Yes</u> | <u>No</u> | <u>CX Exception</u> |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1. Have significant adverse effects on public health or safety. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 2. Have adverse effects on such unique geographic characteristics as historic or cultural resources, park, recreation or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department's National Register of Natural Landmarks. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 3. Have highly controversial environmental effects. |

- | <u>Yes</u> | <u>No</u> | <u>CX Exception</u> |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 6. Be directly related to other actions with individually insignificant but cumulatively significant environmental effects. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated critical habitat for these species. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. Threaten to violate a Federal, State, local or tribal law or requirement imposed for the protection of the environment. |

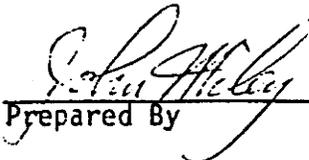
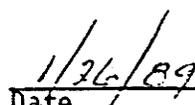
DOCUMENTATION OF RECOMMENDED MITIGATION

For any item checked "Yes," can the impacts be substantially relieved by the mitigating measures proposed by the applicant or by the BLM? If not, the conditions for a CX cannot be met.

<u>Item No.</u>	<u>Can Be Mitigated</u>	<u>Cannot Be Mitigated</u>	<u>Mitigation Reference</u>
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CX DETERMINATION

The proposed action has been determined to meet the criteria for a CX. The action as mitigated does not fall under any of the exceptions to a CX.

		
Prepared By	Title	Date

Wang 1149D
 UT-060-1790-5
 (Page 2 of 2)
 July 1986

Sec. 15 SPECIAL STIPULATIONS -

The following stipulations made part of this lease may be waived or amended with the mutual consent of the lessor and lessee.

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

2. 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 Surface Mining Control and Reclamation Act of 1977 (SMCRA) in effect at the time of action on the mine plan permit.

3. 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 5 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.

4. 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 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 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 5 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.

5. If there is reason to believe that threatened or endangered (T&E) 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. A listing of migratory birds of high federal interest in federal coal producing regions is published by the Fish and Wildlife Service, Migratory Bird Management Office, Washington, D.C. The inventory shall be conducted by a qualified specialist and a report of findings will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

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

6. 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.

7. Powerlines on the lease area used in conjunction with the mining of coal from this lease shall be constructed so as to provide adequate protection for raptors and other large birds. When feasible, powerlines will be located at least 100 yards from public roads.

8. The lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal-handling and storage facilities on the lease area. The migration of road surfacing and subsurface materials into streams and water courses shall be prevented.

9. 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 which 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.

10. 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.

11. In order to avoid surface disturbance on steep canyon slopes and to satisfy the need for surface access, all surface breakouts for ventilation tunnels shall be constructed from inside the mine, except at specifically approved locations.

12. Support facilities, structures, equipment, and similar developments will be removed from the lease area within 2 years after the final termination of use of such facilities. This provision shall apply unless the requirement of Section 10 of the lease form is applicable. Disturbed areas and those areas occupied by such facilities will be stabilized and rehabilitated, drainages reestablished, and the areas returned to a premining land use.

ENVIRONMENTAL ASSESSMENT COVER SHEET

Project Name Franklin Real Estate
 Office Price River Resource Area
 Action Coal Lease Readjustment
 Location T. 12-13 S, R. 10 E. SLM

Intensity of Analysis Medium
 EA Register No. UT-060-PR-81-16
 File Code 1791/3400
 Serial No. SL-046652

Required by 43 CFR 23: Yes No

Prepared by	Title	Resource(s) Assigned
<u>Jim Kenna</u>		<u>ation</u>
<u>Mark Mackiewicz</u>	<u>Lease SL-046652</u>	<u>s</u>
<u>Dave Mills</u>		<u>life</u>
<u>Jesse Purvis</u>	<u>Issued 1921</u>	<u>logy</u>
<u>Sid Vogelpohl</u>	<u>Readjusted 1941, 1961</u>	<u>gy (Team Leader)</u>
<u>Dennis Willis</u>	<u>Pre NEPA</u>	<u>ation</u>
<u>Blaine Miller</u>	<u>Reddjusted 1981</u>	<u>Pre - categorical Exclusion eology</u>
	<u>Guidelines</u>	

Compliance respon

* Area Manager _____
 ** District Manager _____

Date 1/8/81

* Signature will be required on all EA's
 ** Will sign off on all high-level EA's

1791/3400
SL-046652
(U-066)

DECISION RECORD/RATIONALE
COAL LEASE READJUSTMENT
FRANKLIN REAL ESTATE COMPANY
EAR NO. UT-060-PR-81-16

DECISION: The readjustments of Federal coal lease SL-046652 held by Franklin Real Estate Company is recommended with the incorporation of stipulations developed in the attached environmental assessment.

RATIONALE: The proposed lease readjustment would be the first changes in lease stipulations protecting the environment since lease issuances over 40 years ago. Lease readjustment is a normal procedure in the management of Federal leases (43 CFR 3451.1).

ENVIRONMENTAL STATEMENT: Preparation of an environmental statement to consider the readjustments of coal lease SL-046652 is not recommended. Lease readjustment would not have significant impacts on the environment and would not be a major Federal action. Lease readjustment in itself would not irreversibly or irretrievably commit any resources. Public comment has not been requested or received.

P. E. Blyden
Area Manager, Price River Resource Area

9/8/81
Date

District Manager, Moab

Date

I. INTRODUCTION

A. Description of Proposed Action

Federal coal lease SL-046652 was issued on August 3, 1921. The lease, currently held by Franklin Real Estate Company, was due for an optional readjustment of lease terms on August 3, 1981. The development of revised or new lease stipulations will be considered herein. A legal description of the lease is presented below:

T. 12 S., R. 10 E., SLM

Sec. 33: S $\frac{1}{2}$

Sec. 34: S $\frac{1}{2}$

T. 13 S., R. 10 E., SLM

Sec. 3: Lots 1, 2, 3 and 4

802.36 Acres

B. Purpose and Need

In accordance with 43 CFR 3451.1, coal leases are subject to readjustment at the 20-year anniversary of issuance and at the end of each 10-year period thereafter. The BLM develops stipulations to protect the resources not granted to the lessee. The Geological Survey sets royalties, rentals and production requirements. Other than the royalty rate and production requirement, lease stipulations of SL-046652 have not been changed since lease issuance. Stipulations to protect the environment were not included in the 1921 lease agreement.

C. Proposed Development

Subject lease is located in a large block of coal lands owned by Franklin Real Estate Company and operated by Price River Coal Company; both subsidiaries of American Electric Power Service Corporation. The lease is located in the eastern portion of the lease block in which mining is not currently taking place; however, this portion has been included in the mine plan submitted to the Office of Surface Mining on March 20, 1981.

In accordance with the mine plan, coal lease SL-046652 is located within the Cordingly Canyon and Panther Canyon Mine areas which have a mine life of 46 and 28 years, respectively. The minable seams that occur in the lease area are the Kenilworth, "Ce", "B" and "A". All seams would be mined by underground methods. The only surface facilities on the lease area would be two ventilation shafts located in T. 12 S., R. 10 E., SLM, Section 33: S $\frac{1}{2}$ S $\frac{1}{2}$. Maximum total coal thickness on subject lease is about 25 feet. Additional surface exploration is not currently planned, but can be expected.

Surface subsidence can be anticipated above mined areas. Factors influencing subsidence include mining methods, thickness of coal removed, number and spacing of seams, nature of strata above mined areas and thickness of overburden. As mine passageways subside, stress is transferred to solid coal boundaries or pillars with caving occurring until the stress is dissipated. The effects of mine passageways closing may be measurable on the surface, but accurate prediction of the amount of subsidence has not been fully accomplished. In accordance with the mine plan, subsidence monitoring that could detect as little as 2 inches of subsidence will occur.

D. Alternatives

The only alternative is "No Action". In the "No Action" case, the lessee would be allowed to operate under lease stipulations issued more than 40 years ago for the next 10-year period. These lease stipulations did not consider environmental protection. The "No Action" alternative is not considered viable.

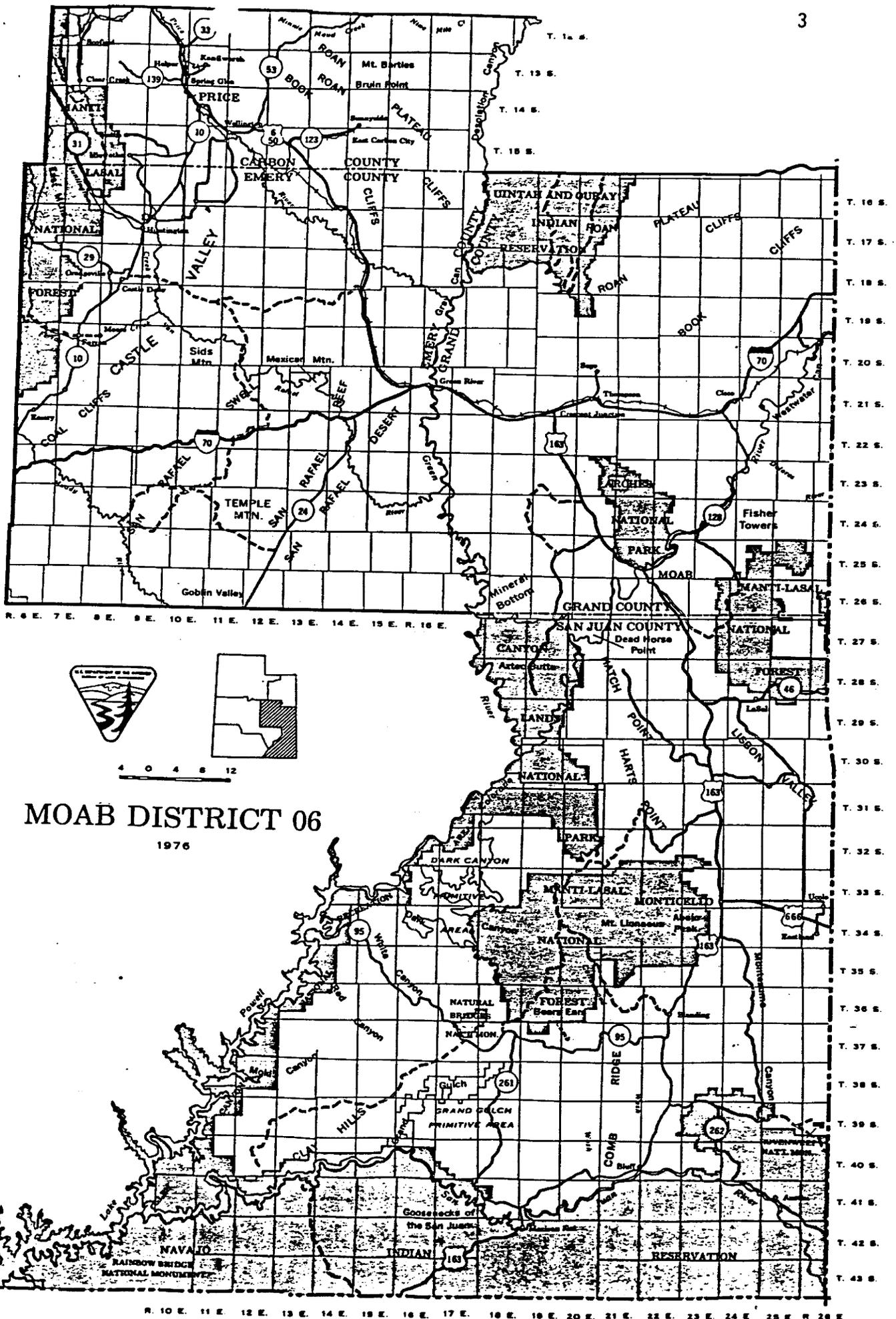
II. EXISTING ENVIRONMENT

Subject lease is located within and near the western extent of the Book Cliffs Known Recoverable Coal Resource Area (KRCRA). The lease is in the Wattis Planning Unit of the BLM's Price River Resource Area, Moab District. The lease is in Carbon County, Utah, about 8 miles north of Price (figure 1). This area is characterized by rugged mountainous terrain (figure 2 and photos) developed by erosion of uplifted, low dipping, predominately sandstone strata. Elevations vary from about 6,960 feet to 8,880 feet. Rainfall averages 20 inches annually. Vegetation consists mainly of mountain shrub, sage and Douglas fir communities. Endangered or threatened plant species are not known to be present. Wildlife habitat of special interest on the lease areas include elk critical winter range. Threatened or endangered animals are not known to be present; however, the bald eagle (winter resident) and peregrine falcon could occur in the area.

The area of subject lease does not include floodplains, wetlands, prime and unique farmlands, alluvial valley floors, wilderness or wilderness study areas. Under the Visual Resource Management (VRM) classification system, the lease area is in an area designated Class IV. Cultural sites are not known to be present.

Additional information on the existing and affected environment is available in the land use planning documents (URA II and III) for the Price River Planning Area, Wattis Unit.

The unsuitability criteria were applied to the Wattis Planning Unit through a Management Framework Plan Supplement completed in 1979. All of SL-046652 has been identified as critical winter range for elk and, therefore, was found to be unsuitable (Criterion 15). The areas of elk habitat were found acceptable after application of the exception which allows underground mining with surface disturbances during certain seasons.



MOAB DISTRICT 06

1976



0 4 8 12

Figure 1

III. ENVIRONMENTAL CONSEQUENCES

A. Topography, Geology, Paleontology and Minerals

Changes in topography may occur on subject lease. Road or pad construction for exploratory work and ventilation shafts could have a significant local impact if indiscriminately located. Mining near cliffs could cause rock falls and slides. Should roads be cut along steep slopes, scars may remain long after reclamation.

Subsidence at the surface could be as little as 12 percent of mined height or as great as 70 percent. Maximum total coal thickness expected to be mined is 25 feet so that maximum expected subsidence is 17 feet. Monitoring of surface effects, as proposed in Price River's mine plan, would permit identification of any unacceptable changes in time to allow modification of mining plans in other areas to prevent similar damage.

Although visual recognition of surface subsidence is not common in the area, surface expressions of subsidence can include open and closed fractures or buckles in sandstone and depressions. The fractures and depressions would generally fill with soil and debris as they form and would not be obvious to an observer. The potential for rock slides or rock falls along cliffs would increase if mining approached too near the outcrop. Coal beds above mined areas that are not mined because of existing economic conditions may be rendered unsuitable for future mining.

Mining induced tremors could be triggered, but are not expected to be greater than the maximum 4.9 recorded for naturally occurring earthquakes in the region. Mine stress releases as great as 4.5 magnitude could occur and would be hazardous to mine workings and could cause landslides or rockfalls. The stress releases are unpredictable and the potential impact cannot be quantified. Damage would not be expected to be significant to structures beyond mine areas.

Impacts to paleontological resources would consist of destruction or disturbance of fossil material in the portal area and within the mine. Mining activity could expose fossils which would otherwise not be available for research and other uses.

Oil and gas exploration would not be allowed over active mine workings and, following mine abandonment, drilling with mud would not be possible where subsidence has occurred due to circulation problems. Air drilling would probably be possible. Potential loss of oil or gas cannot be estimated.

B. Soils

Soils would be disturbed and productivity lost along the route of new roads, at drill pads and adjacent to ventilation shafts. The total acreage disturbed would depend on the number and location of ventilation shafts constructed and exploratory holes drilled over the next 10 years. During construction increased runoff from exposed soil could result in soil movement through

rill and gullying. Wind erosion could also occur. Annual soil loss would be dependent on the amount of precipitation and wind, but could be up to 4 cubic yards per acre as a result of water erosion and 5 cubic yards per acre as a result of wind erosion. The potential for erosion would gradually decrease with revegetation.

Soils on lesser slopes of the lease area have a good potential for revegetation. Productivity of disturbed land would be restored in the long-term. Surface subsidence could have an effect on soil development and productivity.

Subsidence would affect soil characteristics due to small scale changes in runoff patterns. Recognition of the net effect of such changes would be unlikely.

C. Water

Exploration and construction of ventilation shafts is not expected to have significant impacts on either surface or ground water. Sediment load may be increased due to runoff from disturbed areas or where low water stream crossings would be required. Exploratory drilling may penetrate aquifers, but, since non-toxic, biodegradable drilling fluids would be used and the holes plugged with concrete, no significant impacts are expected. Aquifers would be under low pressure and probably of small volume.

Subsidence could have significant impacts on surface and ground water. The course of runoff and streams could be altered or additional seepage of surface water into the subsurface may be caused by subsidence. Ground water at the mine horizon or above could seep into lower strata. Subsidence could affect existing springs or produce new springs. The net effect of such changes is unknown.

The quality of stream water could be changed by seeping into the subsurface as could the quality of ground water that may migrate lower or into mine openings.

D. Vegetation

Vegetation would be destroyed or damaged by construction of roads and pads for exploration and ventilation purposes; but the area of disturbance or species lost cannot presently be determined. Changes in vegetation patterns may occur as a result of altered surface runoff caused by subsidence. Fire danger would be increased by the presence of additional persons and vehicles associated with exploration activity. Some large trees could be lost due to construction, but normally these trees are sufficiently scattered to allow changes in road or pad locations so that few would be destroyed. Vegetation would be destroyed or trampled by construction of roads and pads with the type and quality of vegetation destroyed being determined by the location of future drill sites and access roads. Significant subsidence could cause some change in vegetation patterns.

Surface disturbance frequently results in the rapid increase of invader species. These species are usually unpalatable as in the case of cheatgrass, halogeton, rabbitbrush and Russian thistle. Halogeton, the most common invader, is toxic to livestock.

E. Livestock

Collision of vehicles with cattle would be possible with resulting fatalities or injuries. Anticipated surface disturbances are not expected to require reduction of AUMs.

F. Wildlife and Fish

Some small animal and bird species would lose habitat due to surface disturbances. The degree of adverse effects would vary depending on the number of any certain species and their adaptability to human activities. Activities associated with drilling or ventilation shafts would cause some wildlife to avoid adjacent areas and could disturb deer fawning, elk calving and raptor nesting. Disturbance of elk in critical winter range could have significant impacts. Threatened or endangered faunal species, i.e., peregrine falcon and bald eagle, would not be impacted as allowed by site specific field inspections upon receipt of exploration or mine plans. Subsidence could disrupt springs valuable to wildlife.

G. Recreation

Activity on subject coal lease would detract from the solitude experience that may be sought by hikers or hunters. New or improved roads would allow improved access; however, access to the public may be restricted by locked gates on private land. Game animals may become more elusive of hunters as a result of exploration activities. Roads and pads that would be located on public land would be reclaimed.

Subsidence would not have any effect on recreation as it will be gradual and probably only detectable by monitoring devices.

H. Cultural Resources

Based on current data from nearby studies, the probability of impacting cultural resources, except near springs and in drainage bottoms, is considered low. Construction could damage or destroy unknown sites resulting in irreparable loss of scientific and educational information. Any sites requiring salvage would produce archaeological data which may benefit our understanding of prehistoric cultures. Subsidence would not affect cultural resources.

I. Visual Resources

Scenic values would be damaged for distances away from construction areas determined by the lay of the land and one's vantage point. After reclamation is completed, natural processes would aid in reestablishing a natural appearing landscape.

Subsidence would not affect VRM ratings or be visually noticeable.

J. Land Uses

The general area has been zoned for mining and grazing by Carbon County. Anticipated surface disturbances would have minor impacts on grazing while subsidence could hinder future oil and gas exploration. Should zoning changes allow construction of residences at a later time, subsidence could be a potential problem. Environmental damages would be minimized if reclamation of roads and pads were to occur immediately upon completion of exploration.

IV. RECOMMENDED MITIGATING MEASURES

A. Surface disturbances and facilities planned for the lease area shall be subject to Visual Resource Management considerations. Efforts shall be made to mitigate visual impacts by imitating the form, line, color and texture of the natural landscape to the greatest extent practical as determined by the Authorized Officer.

B. Surface disturbances on the lease area related to the exploration or mining of the coal resources shall be reclaimed to the extent that the productivity of the land is equal or superior to that existing prior to surface disturbance. Reclamation will be complete when so determined by the Authorized Officer in consultation with the surface owner.

C. Surface disturbances will be confined to existing roads or level terrain where feasible. Surface disturbances will not occur on steep slopes (greater than 60 percent) where the Authorized Officer determines that critical to severe erosion hazards would occur and reclamation potential is low.

D. Areas of surface disturbance shall be reclaimed before the first growing season following the time of discontinued use. Reclamation shall include recontouring, spreading of stockpiled topsoil and seeding with native shrub, forb and grass species as determined by the Authorized Officer.

E. The lessee will be required to establish and maintain a monitoring system capable of measuring the effects of underground mining on the surface and subsurface resources. Monitoring shall be conducted by methods and in a manner approved by the Mining Director and in conjunction with requirements of the surface management agency. Results of monitoring shall be reported periodically to the Mining Director and Authorized Officer. The Mining Director may require the lessee to employ such measures and precautions deemed necessary in their mining operation to assure that neither damage to surface resources nor loss of perennial streams occurs or hazardous conditions are created.

F. Prior to surface disturbing activities, the lessee shall have an archaeologist, acceptable to the Authorized Officer (BLM District Manager, Moab), conduct an archaeological survey of the area to be disturbed. The Authorized Officer retains the prerogative to require the relocation of proposed facilities to protect archaeological values located on leased lands, or the

lessee may be required to have sites salvaged by a qualified archaeologist prior to proceeding with operations. If sites are uncovered by his operations, the operator shall not proceed further until additional clearance is granted by the Authorized Officer.

G. The lessee may be required to conduct a wildlife field survey and provide survey data to the Authorized Officer prior to surface disturbing activities that includes identification of nesting sites for raptors and migratory birds of high Federal interest, resident fish habitat, wildlife species of high interest to the State and eagle concentration areas. The field survey shall be acceptable to the Authorized Officer. Mitigating measures to protect identified wildlife species shall be developed by the Authorized Officer upon review of exploration and mine plans.

H. Surface exploration and associated surface disturbances will not be allowed within elk critical winter range during the period November 1 through May 15. The same activities will not be allowed in elk calving areas during the period June 1 through July 15. Elk critical winter range and calving areas and exceptions to the above restrictions will be determined by the Authorized Officer.

I. Powerlines constructed across the lease area shall be in conformance with the publication "Suggested Practices for Raptor Protection on Powerlines (Edison Electric Institute, 1975). Where feasible, power poles and phone poles shall be a minimum distance of 100 yards from public roads to protect raptors from shooting.

J. Lands affected by surface operations on the Federal lands shall be subject to assessment under criteria established by 43 CFR 3461.1 to evaluate unsuitability of the lands for mining.

K. Diligent lease development and continued operations as detailed by 43 CFR 3475.4 shall be accomplished.

L. Proper precautions shall be taken at all times to prevent and suppress fires with the lessee responsible for all costs associated with fires on public lands caused by negligence of his operators, employees, contractors or subcontractors.

V. RESIDUAL IMPACTS

Changes in topography, surface water and ground water brought about by subsidence over mined out areas can be expected to occur over a number of years. Any such changes would not be reversible; however, monitoring of surface effects will permit identification of any unacceptable changes in time to allow modifications of mining plans in other areas to prevent similar damage.

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VI. RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

Exploration activity and construction for ventilation shafts will cause vegetative productivity to be lost with a gradual return to equal or improved productivity in the long-term (5 to 10 years). Habitat and food for wildlife will be accordingly affected which in turn will affect reproductivity of certain wildlife species on a very limited scale.

Subsidence is not expected to significantly affect productivity of surface resources.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Coal resources not mined in mined out areas or not mined for economic or technologic reasons will become inaccessible in most cases due to collapse of mineways. Both the mined coal and unmined coal will have been "consumed" and not available for future production.

The fuels expended in coal exploration or mining would be irretrievably consumed.

Plants and animals would be lost as a result of exploration activities; however, productivity of those not affected would generally cause such destruction to be insignificant.

VIII CONSULTATIONS

Ken Hutchinson, Price River Coal Company
Gene Pearson, U. S. Geological Survey

IX. PUBLIC INTEREST

The economy of Price and surrounding area is dependent on the stimulus provided by coal mining and the general public strongly favor actions by the Federal Government that would encourage coal production.

X. PARTICIPATING STAFF

Jim Kenna, Outdoor Recreation Planner
Mark Mackiewicz, Realty Specialist (Soils)
Dave Mills, Wildlife Biologist
Blaine Miller, Archaeologist
Jesse Purvis, Hydrologist
Sid Vogelpohl, Geologist (Team Leader)
Dennis Willis, Range Conservationist

XI. SUMMARY

Additional drilling or construction of ventilation shafts would require clearing and leveling of pad areas and construction of roads as required for

access. Construction would begin only after a plan has been approved by the BLM and USGS and cultural and T&E clearances have been obtained. Dust, noise and vehicle emission would be introduced to the local environment and vegetation and wildlife habitat in construction areas destroyed. Wildlife fatalities may be incurred during construction or as the result of vehicle strikes along access roads. The noise and air pollution associated with exploration would cease with reclamation activities. Ventilation shafts would be used throughout mine life. Vegetation and wildlife habitat and habitation would begin to return to normal following reclamation.

Surface subsidence can be expected above mined areas. Factors influencing subsidence include mining methods, thickness of coal removed, nature of strata above mined areas and thickness of overburden which make the amount of surface subsidence difficult to predict. Estimations of subsidence range from 12 to 70 percent of total mined height. Total mined height would not exceed 25 feet. A subsidence monitoring system would be established.

The significant detrimental impacts of surface subsidence could include unknown effects on surface and ground water supplies. Surface runoff could be diverted along different courses on the surface or seep into the subsurface by subsidence cracks. Ground water may pass into lower strata or into mine cavities. The net effect of such changes cannot be predicted, but would be monitored.

XII. RECOMMENDATIONS

A. Bonding

It is recommended that the standard \$25,000 statewide or \$75,000 nationwide bond would be sufficient for subject lease.

B. Stipulations

Those stipulations listed under Recommended Mitigating Measures (p. 8) are recommended for readjustment of subject lease.

SL-046652 IN FOREGROUND- VEHIS ARE CELESTIAL



DECISION RECORD AND
FINDING OF NO SIGNIFICANT IMPACT

I. PROJECT IDENTIFICATION

No. UT-066-86-17X Project Type: Readjustment of Federal Coal Lease
Operator Blackhawk Coal Co. Lease/ROW No. U-0148779
Project Location Most of Sec. 26, Other Info. _____
All of Sec. 27, T. 12S., R. 10E.
Submittal Date: Dec. 10, 1985 Field Insp. Date: N/A

II. DECISION RECORD

A. Decision: The readjustment of Coal Lease U-0148779 held by Blackhawk Coal Co. is recommended with the incorporation of the attached stipulations.

B. Rationale: The 1966 to amend the assessment of the Lease U-0148779. The lease is not will be submitted. tunity since as a general object lease. and mine plan tivities.

C. Environmental Issued 1966 pre NEPA to consider the Lease readjustm and would not b would not irrev Readjusted after 1st 20yr term 1986 l statement ommended. vironment t in itself

D. STIPULATIONS: Guidelines to allow categorical exclusions part of this Decision through this E instead of EA or EIS put into on- mental impacts affect 1983 ord.

III. FINDING OF NO SIGNIFICANT IMPACT
(Does not apply to)

Based on the analysis in this Environmental Statement is not expected to be significant. ned s are pact

Len E. Bingham
Area Manager

12/10/85
Date

RECORD OF
CATEGORICAL EXCLUSION (CX) DETERMINATION

Project: Federal Coal Lease (U-0148779) Readjustment EA No. UT-066-86-17X
Applicant: Blackhawk Coal Co. Project Most of Sec. 26, All of Sec. 27,
Location: T. 12 S., R. 10 E.

CX Number From 516 DM 2, App. 1 (5/11/84) or
516 DM 6, App. 5.4 (9/26/83) D(4(e))

BLM Office: Price River Resource Area Phone No.: (801) 637-4584
Moab District

Description of the Proposed Action: Readjustment of Federal Coal Lease U-0148779

1. SUMMARY OF FINDINGS:

The proposed action is categorically excluded from Environmental Assessment (EA) or Environmental Impact statement (EIS) preparation under 516 DM 6, Appendix 2 or Appendix 5. The proposed action has been reviewed against the nine criteria for an exception to a Categorical Exclusion (CX), as identified in 516 DM 2.3 A(3). The proposed action does not fall under any exception, and is, therefore, categorically excluded from further assessment.

2. DOCUMENTATION OF CX EXCEPTIONS:

The proposed action would not create adverse environmental effects under the CX exceptions, unless as noted. The proposed action may:

Yes No CX Exception

- 1. Have significant adverse effects on public health or safety.
- 2. Have adverse effects on such unique geographic characteristics as historic or cultural resources, park, recreation or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department's National Register of Natural Landmarks.
- 3. Have highly controversial environmental effects.
- 4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.
- 5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.
- 6. Be directly related to other actions with individually insignificant but cumulatively significant environmental effects.
- 7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places.
- 8. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species.
- 9. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act.
- 10. Threaten to violate a Federal, State, local or tribal law or requirement imposed for the protection of the environment.

3. DOCUMENTATION OF RECOMMENDED MITIGATION

For any item checked "Yes", can the impacts be mitigated by the proposed stipulations/mitigating measures? If not, the conditions for a categorical exclusion cannot be met.

<u>Item No.</u>	<u>Can Be Mitigated</u>	<u>Cannot Be Mitigated</u>	<u>Mitigation Reference</u>
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4. CX DETERMINATION

The proposed action has been determined to meet the criteria for a categorical exclusion. The action as mitigated does not fall under any of the exceptions to a categorical exclusion.

Arthur R. Smith Geologist 12/10/85
Prepared By Title Date

RESOURCE EVALUATION OF MINERAL ACTIONS

Company: Blackhawk Coal Co.

Project: FCL U-0148779
Federal Coal Lease Readjustment

Location: All Sec 27 & All bot SW 1/4 SW 1/4 Sec 26, T. 12 S., R. 10 E.

Instructions: Check box if your listed resource may be impacted. Leave box empty if listed resource will not be affected. Give comments in space provided. If additional space is needed use last page.

WILDLIFE

Threatened or Endangered Species

Major issues covered under stipulations #s 1, 2, 5, 6.
Such issues as protection of wildlife habitats and mitigation
of impacts will be addressed at the preparation of
a mine plan.

[Signature] 12-6-85
Signature/date

RANGE

Threatened or Endangered Species

Possible occurrence of *Hedysarum occidentale*
var. *canone*. Should require clearance

[Signature] 12/5/85
Signature/date

ARCHAEOLOGY

Cultural or Historic Resources

Protected by stipulation

Blair A. Miller 12-5-85
Signature/date

HYDROLOGY

- Floodplains and Wetlands
- Water Resources
- Air Quality

Signature/date

RECREATION

- Wilderness Values *No*
- Wild and Scenic Rivers *No*
- Visual Resource Management
- Areas of Critical Environmental Concern *No*

Standard VRM strips, to allow design modifications, painting, etc at mining plan

[Handwritten Signature]
Signature/date

GEOLOGY

- Paleontological Resources

Signature/date

LANDS

Is a right-of-way required: Yes No

Five horizontal lines for handwritten notes.

[Handwritten Signature] 12-1-85
Signature/date

SOILS

Prime or Unique Farmlands

Five horizontal lines for handwritten notes.

Signature/date

COURSE OF ACTION

Eight horizontal lines for handwritten notes.

Signature/date

DISTRICT
DISTRICT

R. 9 W.

UINTAH SPECIAL MERIDIAN

R. 8 W.

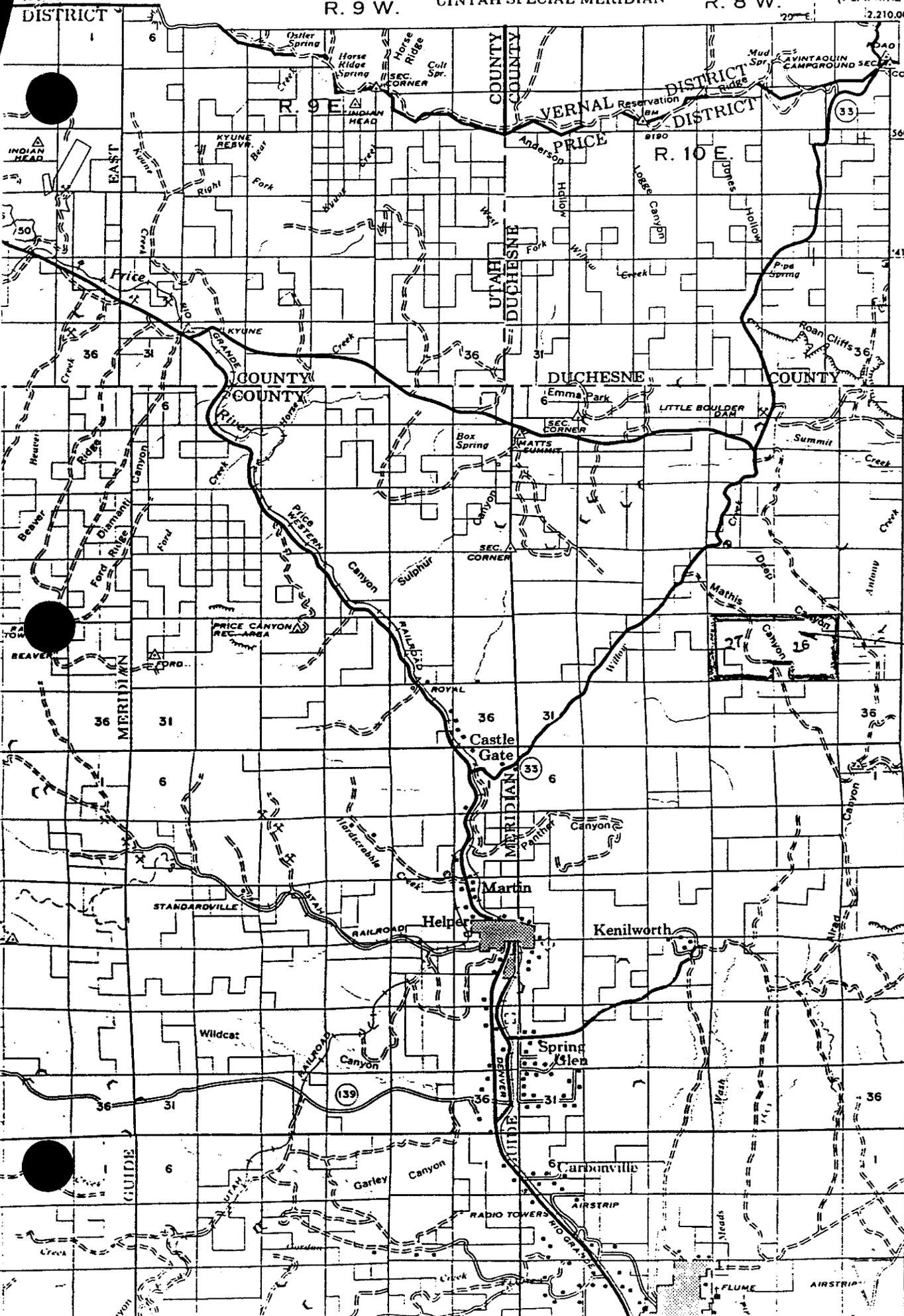
PRICE
(PLANIMETRIC)
2,210,000

T. 7 S.

T. 11 S.

T. 12 S.

T. 13 S.



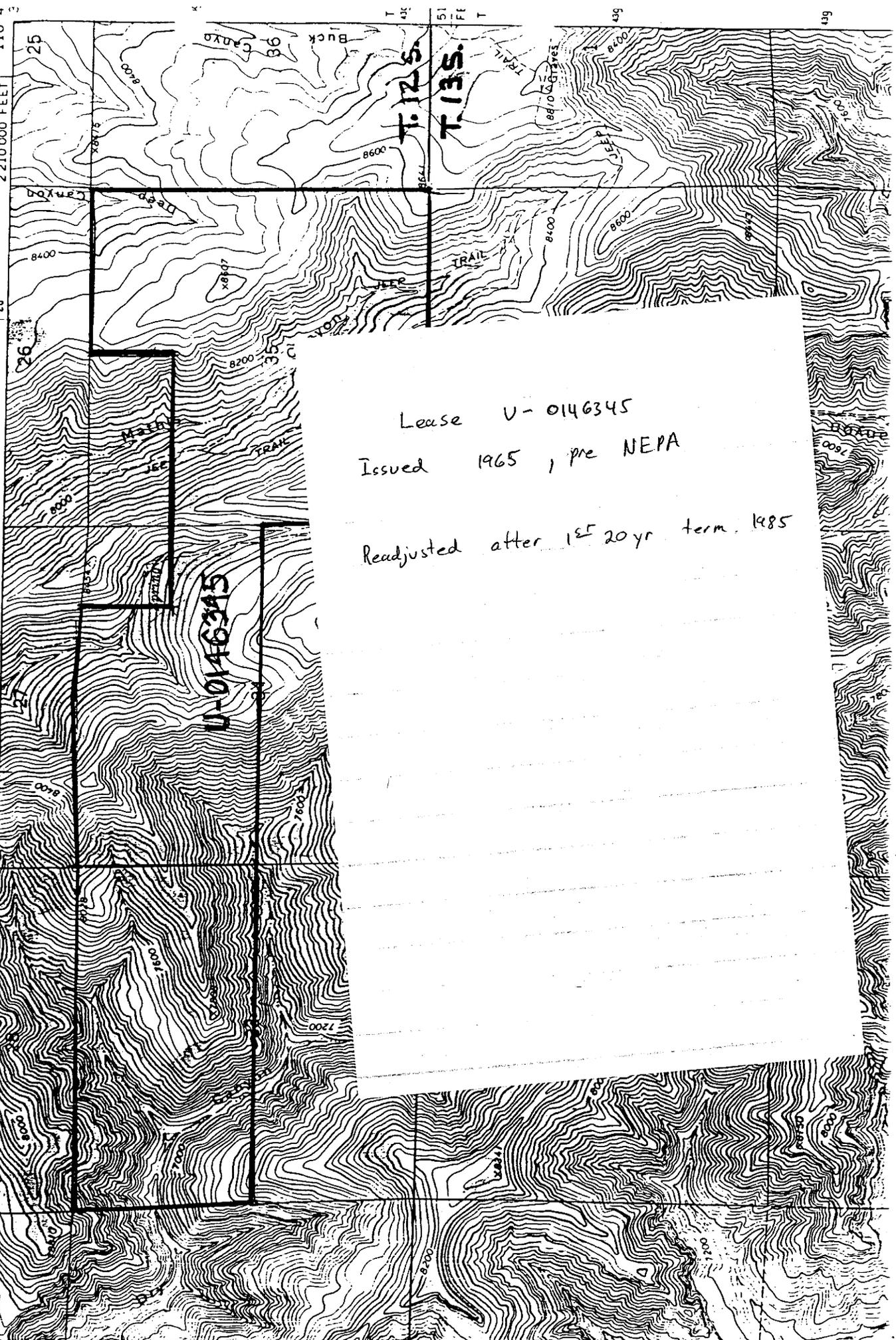
Blackhawk
Coal Co.
U-014877?

HELPER QUADRANGLE
UTAH-CARBON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

STATE OF UTAH

R.10E.

3863 IV SE (MATT'S SUMMIT) 1317 47'30" 1318 2210,000 FEET 110°4 25 26 27 28 29
NE 1/4 CASTLE GATE 15' QUADRANGLE
Scale 1" = 2,000'



Lease U-0146345
Issued 1965, pre NEPA
Readjusted after 1st 20 yr term, 1985

STIPULATIONS

(Federal Coal Lease U-0146345)

The following stipulations made part of this lease may be waived or amended with the mutual consent of the lessor and lessee.

1. In accordance with Sec. 523(b) of the "Surface Mining Control and Reclamation Act of 1977", surface mining and reclamation operations conducted on this lease are to conform with the requirements of this act and are subject to compliance with Office of Surface Mining regulations, or as applicable, a Utah program equivalent approved under cooperative agreement in accordance with Sec. 523(c) and final determination of suitability for mining. The United States Government does not warrant that the entire tract will be susceptible to mining.
2. 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 Surface Mining Control and Reclamation Act of 1977 (SMCRA) in effect at the time of action on the mine plan permit.
3. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the Lessee may be required to conduct a cultural resource inventory and a paleontological appraisal of the areas to be disturbed. These studies shall be conducted by qualified professional cultural resource specialists or recognized qualified paleontologists, as appropriate, 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 or paleontological resources.

If cultural resources or 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 brought to his attention and, within five (5) working days, shall notify the Lessee what action shall be taken with respect to such discovers. The cost of salvage of paleontological remains (fossils) shall be borne by the United States.

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.

4. If there is reason to believe that threatened or endangered (T&E) species of plants or 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 will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

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

5. 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 inter-relationship 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.
6. Powerlines used in conjunction with the mining of coal from this lease shall be constructed so as to provide adequate protection for raptors and other large birds. When feasible, powerlines will be located at least 100 yards from public roads.
7. The Lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal handling and storage facilities. The migration of road surfacing and subsurface materials into streams and water courses shall be prevented.
8. 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 which will provide a continuing record of change over 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.
9. 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.
10. In order to avoid surface disturbance on steep canyon slopes and to satisfy the need for surface access, all surface breakouts for ventilation tunnels shall be constructed from inside the mine, except at specific approved locations.
11. Support facilities, structures, equipment, and similar developments will be removed from the lease area within two years after the final termination of use of such facilities. Disturbed areas and those areas occupied by such facilities will be stabilized and rehabilitated, drainages re-established, and the areas returned to a premining land use.

DECISION RECORD AND
FINDING OF NO SIGNIFICANT IMPACT

I. PROJECT IDENTIFICATION

EA No.: UT-066-85-43X Project Type: Readjustment of Federal
Operator: Blackhawk Coal Co. Coal Lease
Project Location: Parts of Secs. Lease/ROW No. U-0146345
33, 34 & 35, T12S, R10E Other Info. _____
Submittal Date: March 15, 1985 Field Insp. Date: N/A

II. DECISION RECORD

- A. Decision: The readjustment of Coal Lease U-0146345 held by Blackhawk Coal Co. is recommended with the incorporation of the attached stipulations.
- B. Rationale: The proposed lease readjustment is the first opportunity since 1965 to amend the terms of lease U-0146345. This action requires a general assessment of the effects of development of coal reserves on subject lease. The lease is not included in a permit issued by OSM. A detailed mine plan will be submitted for approval prior to initiation of mining activities.
- C. Environmental Considerations: Preparation of an environmental statement to consider the readjustment of coal lease U-0146345 is not recommended. Lease readjustment would not have significant impacts on the environment and would not be a major Federal action. The lease readjustment in itself would not irreversibly or irretrievably commit any resources.
- D. Stipulations: The stipulations attached are included as part of this Decision Record. The stipulations have been developed to mitigate the environmental impacts of the action permitted by this Decision Record.

L. E. Binyon
Area Manager

3/22/85
Date

RECORD OF
CATEGORICAL EXCLUSION REVIEW (CER)

File Code: 3400

Project: Federal coal lease U-0146345 readjustment EA No. UT-066-85-43X
Applicant: Blackhawk Coal Co. Project Location: Parts of Secs 33, 34, 35, T.12 S., R.10 E.

CX Number From 516 DM 2, App. 1 (5/11/84) or
516 DM 6, App. 5.4 (9/26/83)

BLM Office: Price River Resource Area Phone No.: (801) 637-4584

Description of the proposed Action: Readjust terms (if required) of Federal Coal lease U-0146345

1. SUMMARY OF FINDINGS:

The proposed action is categorically excluded from Environmental Assessment (EA) or Environmental Impact statement (EIS) preparation under 516 DM 6, Appendix 2 or Appendix 5. The proposed action has been reviewed against the nine criteria for an exception to a Categorical Exclusion (CX), as identified in 516 DM 2.3 A(3). The proposed action does not fall under any exception, and is, therefore, categorically excluded from further assessment.

2. DOCUMENTATION OF CX EXCEPTIONS:

The proposed action would not create adverse environmental effects under the CX exceptions, unless as noted. The proposed action may:

Yes No CX Exception

- | | | |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 1. Have significant adverse effects on public health or safety. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 2. Have adverse effects on such unique geographic characteristics as historic or cultural resources, park, recreation or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department's National Register of Natural Landmarks. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 3. Have highly controversial environmental effects. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 6. Be directly related to other actions with individually insignificant but cumulatively significant environmental effects. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. Threaten to violate a Federal, State, local or tribal law or requirement imposed for the protection of the environment. |

3. DOCUMENTATION OF RECOMMENDED MITIGATION

For any item checked "Yes", can the impacts be mitigated by the proposed stipulations/mitigating measures? If not, the conditions for a categorical exclusion cannot be met.

<u>Item No.</u>	<u>Can Be Mitigated</u>	<u>Cannot Be Mitigated</u>	<u>Mitigation Reference</u>
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4. CX DETERMINATION

The proposed action has been determined to meet the criteria for a categorical exclusion. The action as mitigated does not fall under any of the exceptions to a categorical exclusion.

<u>Prepared By</u>	<u>Title</u>	<u>Date</u>
<i>A. Smith</i>	<i>Geologist</i>	<i>Mar. 18, 1985</i>



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District

Price River/San Rafael Resource Area

125 South 600 West

Price, Utah 84501

3482

UTU-73975

(UT-066)

Memorandum

JUN - 2 1997

To: Senior Project Manager Utah, Western Regional Coordinating Center, Office of Surface Mining, 1999 Broadway, Suite 3320, Denver, Colorado 80202-5733

From: Area Manager

Subject: Resource Recovery and Protection Plan (R2P2), Willow Creek Mine, Cyprus Plateau Mining Corporation

The Bureau of Land Management has received and reviewed the subject R2P2 as part of the permit application package for adding Federal coal lease UTU-73975 to the approved Willow Creek Mine permit. This letter documents the Bureau's findings for the R2P2 as required by the laws governing the Federal coal lease.

Cyprus has recently permitted the Willow Creek Mine for a large area covered by an approved R2P2 in conjunction with the Blackhawk Logical Mining Unit (LMU). Having been the successful bidder for the new Willow Creek Tract Coal Lease, Cyprus has submitted an R2P2 that covers the whole of the permit area, including the new lease tract. Our recommendation on this R2P2 will supersede any previous approvals for this property.

Our review of the mining plan finds some of the following items. Cyprus plans to mine all areas of minable coal or has justified areas of no mining. The property is complex, with multiple seams, geologic constraints, old mine works, etc., which were fully addressed in the plan. The area in the northeast portion has potential mining, but is speculative based on the depth of mining (+2500 feet). Also, some of areas were not to be mined based on protection of cliffs. In both cases, these areas may or may not be mined based on limited information and the BLM will further address these issues as new information and mining experience is obtained.

The submitted R2P2 is 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 recommend the R2P2 be approved as part of the permit application. If you have any questions, please contact Stephen Falk or George Tetreault of my staff at (801) 636-3600.

Mark E. Bailey

Asst. Dir. M.

cc: UT-921, Utah State Office
Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801
Cyprus Plateau Mining Corporation
P. O. Drawer PMC
Price, Utah 84501



1120 CONNECTICUT AVENUE, NW
SUITE 900
WASHINGTON, D.C. 20036
(202) 857-0166 FAX (202) 857-0162

April 28, 1997

Cyprus Plateau Mining Corporation
Price, UT 84501

Dear Friend,

I am pleased to acknowledge receipt of your gift of \$511.00 to the National Fish and Wildlife Foundation (NFWF). Your contribution will match federal funds committed by NFWF to help support the Colorado River Fish Recovery Fund project.

For the past ten years NFWF has been matching private gifts to selected conservation projects with federal matching funds. During this period, NFWF has committed more than \$62 million in federal matching funds to 1,834 grants that leveraged \$236 million for on-the-ground conservation projects.

This letter will serve as your receipt for tax purposes. As required by federal law we note that this gift, received 04/08/97, is fully tax deductible, and that no goods or services were provided in consideration for your donation.

On behalf of everyone associated with NFWF, thank you for your generous support of this project.

Sincerely,

A handwritten signature in cursive script that reads "Whitney Tilt".

Whitney Tilt
Director, Conservation Programs



United States Department of the Interior

OFFICE OF SURFACE MINING

Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733

IN REPLY REFER TO:

UT-0071

October 29, 1996

Mr. Ben Grimes, Sr.
Staff Project Engineer, Willow Creek Mine
Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, UT 84501

Dear Mr. Grimes:

This is a follow-up to our recent letters dated May 31, and September 16, 1996, regarding contribution to the Upper Colorado Recovery Implementation Program for Endangered Fish Species. Thank you for the contribution in the amount \$9,008.20 to the National Fish and Wildlife Foundation that acknowledged the receipt of this above amount in their letter dated October 1, 1996.

In our letter of May 31, 1996, the amount of \$9,008.20 was calculated at the rate of \$12.34 which, as we learnt from the Fish and Wildlife Service's (FWS) letter of October 22, 1996, should have been \$13.04 per acre-foot of depletion. As explained in FWS's letter (copy enclosed) an additional amount of \$ 511.00 should be reimbursed at your earliest opportunity to the National Fish and Wildlife Foundation in accordance with the instructions contained in our letter dated September 16, 1996. Please send us copies of your letter transmitting the above amount. A copy of the transmitted letter should also be sent to FWS.

We would resume consultation process with FWS following the receipt of confirmation of payment to the National Fish and Wildlife Foundation.

Thank you for your cooperation.

Sincerely yours,

Ranvir Singh
Ranvir Singh, P.E.
Program Support Division

Enclosure

cc: Fish and Wildlife Service
Utah Division of Oil, Gas and Mining



United States Department of the Interior
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE
LINCOLN PLAZA
145 EAST 1300 SOUTH, SUITE 404
SALT LAKE CITY, UTAH 84115

In Reply Refer To

(CO/KS/NE/UT: 6-UT-96-F-006)

October 22, 1996

Memorandum

To: Mr. Gregory K. Reed, Reclamation and Enforcement, Office of Surface Mining,
1999 Broadway, Suite 3320, Denver, Colorado 80202-5733

From: *Acting* Utah Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Salt
Lake City, Utah

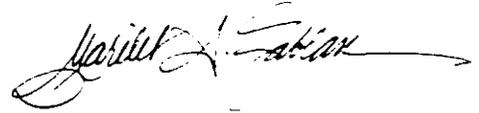
Subject: Payment of Depletion Fee for Formal Section 7 Consultation for the Cyprus
Plateau Mining Corporation's Willow Creek Mine

On September 17, 1996, the Fish and Wildlife Service (Service) received a fax transmittal of a letter from Cyprus Plateau Mining Corporation to the Office of Surface Mining Reclamation and Enforcement. This letter explained that a check in the amount of \$9,008.20 to be paid to the Upper Colorado Recovery Implementation Program for Endangered Fish Species was being processed. As Janet Mizzi of my staff explained to you in a phone conversation on October 9, 1996, the amount of the check is incorrect, and reflects a depletion fee of \$12.34. The depletion fee is adjusted for inflation on an annual basis. The fee for fiscal year (October 1 to September 30) 1996, when the payment was made, was \$13.04 per acre-foot, not \$12.34. The Cyprus Plateau Mining Corporation's 730 acre-foot depletion would have calculated to a total of \$9,519.20, not \$9,008.20. The Service is requesting remittance of the additional \$511 at this time.

Additionally, as identified in the biological opinion, all payments should be made to the National Fish and Wildlife Foundation accompanied by a cover letter that identifies the project and biological opinion that requires the payment, the amount of payment enclosed, check number, and any special conditions identified in the biological opinion relative to disbursement or use of the funds (there are none in this instance). The cover letter also shall identify the name and address of the payor, the name and address of the Federal Agency responsible for authorizing the project, and the address of the Service office issuing the biological opinion. It was unclear in your fax whether this information was provided along with the check and whether or not payment was made to the National Fish and Wildlife Foundation.

We have issued the biological opinion because the fax transmittal identifies the Cyprus Plateau Mining Corporation's commitment to pay the depletion fee. However, the biological opinion is

issued to the Office of Surface Mining Reclamation and Enforcement, and it is therefore, your responsibility to ensure that payment is made in the correct amount and to the correct entity. If you have questions or need additional information please contact Janet Mizzi or Bob Williams at (801)524-5001.

128




1120 CONNECTICUT AVENUE, NW
SUITE 900
WASHINGTON, D.C. 20036
(202) 857-0166 FAX (202) 857-0162

October 1, 1996

Mr. Ben Grimes
Cyprus-Plateau Mining Corporation
P.O. Drawer PMC
Price, UT 84501

Dear Mr. Grimes:

The National Fish and Wildlife Foundation is writing to acknowledge receipt of check #02233446 in the amount of \$9,008.20 to the National Fish and Wildlife Foundation. These monies are identified as depletion charges to offset impacts on the Colorado River system. These funds will be deposited into the *Colorado River Recovery Fund (Fund)* and will be used solely to support the conservation efforts of the Colorado River Recovery Implementation Program. Enclosed please find information on the *Fund* and the Colorado River Fish recovery program.

By copy of this letter, the Foundation is notifying the U.S. Fish and Wildlife Service and Corps of Engineers of your payment. If there are any questions concerning the Colorado River Recovery Implementation Program, please contact Angela Kantola at U.S. Fish and Wildlife Service, P.O. Box 25486, Denver, CO 80225, (303) 236-2985 x221.

Sincerely,

Whitney Tilt
Director of Conservation Programs
Enclosures

Post-it [®] Fax Note	7671	Date	10/15/96	# of pages	1
To	RAW SINGH	From	BEN GRIMES		
Co./Dept.		Co.			
Phone #		Phone	(801) 636-2227		
Fax #	844-1538	Fax #			

cc: U.S. Fish and Wildlife Service, Denver, CO

UT-0071

September 16, 1996

Mr. Ben Grimes, Sr.
Staff Project Engineer, Willow Creek Mine
Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, UT 84501

Dear Mr. Grimes:

Thank you for your letter dated September 12, 1996, informing that the Cyprus Plateau Mining Corporation is processing a check in the amount of 9,008.20 to be paid to the Upper Colorado Recovery Implementation Program.

Now, since we know that CPMC has decided to contribute to the Recovery Program, I am please to provide you with the following information, as indicated in my letter dated May 31, 1996.

Please make the check payable to the Colorado River Fish Recovery Fund, Project No. 89-055 to ensure that this amount is credited to the correct account. The check, with a cover letter, should be mailed to:

National Fish and Wildlife Foundation
Att.: Mr. Whitney Tilt
The Bender Building, Suite 900
1120 Connecticut Ave, NW
Washington, DC 20036

Please send a copy of your correspondence, etc. to the Fish and Wildlife Service at the following address:

US Fish and Wildlife Service, Utah Field Office
Att.: Robert D. Williams
145 East 1300 South, Suite 404
Salt Lake City, UT 84115

Telephone and Fax Nos. for FWS are:
Tel. 801-524-5001 and
Fax 801-524-5021.

If you have any questions, please let me know.

Sincerely,
Ranvir Singh
Ranvir Singh, P.E.
Program Support Division



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mountain-Prairie Region

IN REPLY REFER TO:

ES/OSM
(Utah)-6-UT-96-F-000
CO-KS-NE-UT

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225-0486

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228-1807

Memorandum

To: Assistant Director, Western Support Center, Office of Surface Mining, Reclamation, and Enforcement, Denver, Colorado
Attention: Mr. Gregory K. Reed

From: Regional Director, Region 6
Fish and Wildlife Service
Denver, Colorado

Subject: Formal Section 7 consultation for the Cyprus Plateau Mining Corporation's Willow Creek Mine

In accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), and the Interagency Cooperation Regulations (50 CFR 402), this transmits the Fish and Wildlife Service's final biological opinion for impacts to federally listed endangered species for the Willow Creek Mine, Carbon County, Utah. This opinion is provided to you as the lead Federal Agency regarding section 7 consultation on this project. Copies of this opinion should be provided to the applicant because the Service has incorporated reasonable and prudent alternatives that should be included as conditions of any permits issued by the Office of Surface Mining for this project.

Reference is made to your May 29, 1996, correspondence requesting initiation of formal consultation for the subject project. The Service concurs that the annual depletion of water from the Colorado River Basin "may affect" the endangered Colorado squawfish (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), bonytail (*Gila elegans*), and razorback sucker (*Xyrauchen texanus*) and "may affect" their critical habitat.

BIOLOGICAL OPINION

Based upon the best scientific and commercial information that is currently available, it is the Service's biological opinion that the proposed project, as described below, is likely to jeopardize the continued existence of the Colorado squawfish, humpback chub, bonytail, and razorback sucker and result in the destruction or adverse modification of their critical habitat. The Service has developed reasonable and prudent alternatives to avoid the likelihood of jeopardy to the endangered fishes and to avoid destruction or adverse modification of their critical habitat.

PROJECT DESCRIPTION

The Office of Surface Mining Reclamation and Enforcement and the Utah Division of Oil, Gas, and Mining are currently reviewing an application for the proposed Cyprus Plateau Mining Corporation, Willow Creek Mine. The Corporation currently operates the Star Point No. 2 underground coal complex. The Willow Creek Mine is designed to replace this complex.

The Willow Creek Mine is located approximately 10 miles north of Price, Utah. The Surface facilities are located to the north of Willow Creek and State Highway 191 in Willow Creek Canyon. The area is part of the Book Cliffs of central Utah and is characterized by high plateaus to the north; steep, narrow ridges and deeply incised drainages in the permit and adjacent areas. Elevation within the area ranges from 6,200 feet near the confluence of Willow Creek with Price River, to over 8,600 feet along the ridge lines to the southeast.

The Willow Creek permit area encompasses a block of approximately 14,670 acres of Federal lands managed by the Bureau of Land Management, County land, private lands, and fee lands. In order to support the underground coal operations, the Corporation plans to develop surface facilities in the vicinity of the underground mine portals on the north and west side of Willow Creek and will renovate and utilize the existing Castle Gate preparation plant and loadout facilities. The facilities area has been extensively disturbed by previous mine development, highway construction, and recent Abandoned Mine Reclamation projects. The main area proposed for disturbance includes 54.8 acres. Of this, 31.1 acres are previously disturbed and unreclaimed, 16.8 acres are previously disturbed and reclaimed, and 6.9 acres are undisturbed and pinyon-juniper and sagebrush-grass communities.

BASIS FOR BIOLOGICAL OPINION

This biological opinion addresses an average annual depletion of approximately 730 acre-feet from the Upper Colorado River Basin. Water depletions in the Upper Basin have been recognized as a major source of impact to endangered fish species. Continued water withdrawal has restricted the ability of the Colorado River system to produce flow conditions required by various life stages of the fishes.

Critical habitat has been designated for the Colorado squawfish, humpback chub, bonytail, and razorback sucker within the 100-year floodplain in portions of their historic range (59 F.R. 13374). Destruction or adverse modification of critical habitat is defined in 50 CFR 402.02 as a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. In considering the biological basis for designating critical habitat, the Service focused on the primary physical and biological elements that are essential to the conservation of the species without consideration of land or water ownership or management. The Service has identified water, physical habitat, and biological environment as the primary constituent elements. This includes a quantity of water of sufficient quality that is delivered to a specific location in accordance with a hydrologic regime that is required for the

particular life stage for each species. Water depletions reduce the ability of the river system to provide the required water quantity and hydrologic regime necessary for recovery of the fishes. The physical habitat includes areas of the Colorado River system that are inhabited or potentially habitable for use in spawning and feeding, as a nursery, or serve as corridors between these areas. In addition, oxbows, backwaters, and other areas in the 100-year floodplain, when inundated, provide access to spawning, nursery, feeding, and rearing habitats.

BIOLOGICAL BACKGROUND

Colorado Squawfish

The Colorado squawfish evolved as the main predator in the Colorado River system. The diet of Colorado squawfish longer than 3 or 4 inches consists almost entirely of other fishes (Vanicek and Kramer 1969). The Colorado squawfish is the largest cyprinid fish (minnow family) native to North America and, during predevelopment times, may have grown as large as 6 feet in length and weighed nearly 100 pounds (Behnke and Benson 1983). These large fish may have been 25-50 years of age.

Based on early fish collection records, archaeological finds, and other observations, the Colorado squawfish was once found throughout warmwater reaches of the entire Colorado River Basin, including reaches of the upper Colorado River and its major tributaries, the Green River and its major tributaries, and the Gila River system in Arizona (Seethaler 1978). Colorado squawfish were apparently never found in colder, headwater areas. Seethaler (1978) indicates that the species was abundant in suitable habitat throughout the entire Colorado River basin prior to the 1850's. Historically, Colorado squawfish have been collected in the upper Colorado River as far upstream as Parachute Creek, Colorado (Kidd 1977).

A marked decline in Colorado squawfish populations can be closely correlated with the construction of dams and reservoirs between the 1930's and the 1960's, introduction of nonnative fishes, and removal of water from the Colorado River system. Behnke and Benson (1983) summarized the decline of the natural ecosystem. They pointed out that dams, impoundments, and water use practices are probably the major reasons for drastically modified natural river flows and channel characteristics in the Colorado River Basin. Dams on the main stem have essentially segmented the river system, blocking Colorado squawfish spawning migrations and drastically changing river characteristics, especially flows and temperatures. In addition, major changes in species composition have occurred due to the introduction of nonnative fishes, many of which have thrived as a result of changes in the natural riverine system (i.e., flow and temperature regimes). The decline of endemic Colorado River fishes seems to be at least partially related to competition or other behavioral interactions with nonnative species, which have perhaps been exacerbated by alterations in the natural fluvial environment.

The Colorado squawfish currently occupies about 1,030 river miles in the Colorado River system (25 percent of its original range) and is presently found only in the Upper Basin above Glen Canyon Dam. It inhabits about

350 miles of the main stem Green River from its mouth to the mouth of the Yampa River. Its range also extends 160 miles up the Yampa River and 104 miles up the White River, the two major tributaries of the Green River. In the main stem Colorado River, it is currently found from Lake Powell extending about 201 miles upstream to Palisade, Colorado, and in the lower 33 miles of the Gunnison River, a tributary to the main stem Colorado River (Tyus et al. 1982).

Critical Habitat

Critical habitat has been designated within the 100-year floodplain of the Colorado squawfish's historical range in the following sections of the Upper Basin, excluding the San Juan River Basin (59 F.R. 13374).

Colorado, Moffat County. The Yampa River and its 100-year floodplain from the State Highway 394 bridge in T. 6 N., R. 91 W., section 1 (6th Principal Meridian) to the confluence with the Green River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian).

Utah, Uintah, Carbon, Grand, Emery, Wayne, and San Juan Counties; and Colorado, Moffat County. The Green River and its 100-year floodplain from the confluence with the Yampa River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian) to the confluence with the Colorado River in T. 30 S., R. 19 E., section 7 (Salt Lake Meridian).

Colorado, Rio Blanco County; and Utah, Uintah County. The White River and its 100-year floodplain from Rio Blanco Lake Dam in T. 1 N., R. 96 W., section 6 (6th Principal Meridian) to the confluence with the Green River in T. 9 S., R. 20 E., section 4 (Salt Lake Meridian).

Colorado, Delta and Mesa Counties. The Gunnison River and its 100-year floodplain from the confluence with the Uncompahgre River in T. 15 S., R. 96 W., section 11 (6th Principal Meridian) to the confluence with the Colorado River in T. 1 S., R. 1 W., section 22 (Ute Meridian).

Colorado, Mesa and Garfield Counties; and Utah, Grand, San Juan, Wayne, and Garfield Counties. The Colorado River and its 100-year floodplain from the Colorado River Bridge at exit 90 north off Interstate 70 in T. 6 S., R. 93 W., section 16 (6th Principal Meridian) to North Wash, including the Dirty Devil arm of Lake Powell up to the full pool elevation, in T. 33 S., R. 14 E., section 29 (Salt Lake Meridian).

Biology

The life-history phases that appear to be most critical for the Colorado squawfish include spawning, egg fertilization, and development of larvae through the first year of life. These phases of Colorado squawfish development are tied closely to specific habitat requirements. Natural spawning of Colorado squawfish is initiated on the descending limb of the annual hydrograph as water temperatures approach 20 °C. Spawning, both in the hatchery and in the field, generally occurs in a 2-month timeframe between July 1 and September 1, although high flow water years may suppress river

temperatures and extend spawning in the natural system into September. Conversely, during low flow years when the water warms earlier, spawning may occur in late June.

Temperature also has an effect on egg development and hatching. In the laboratory, egg mortality was 100 percent in a controlled test at 13 °C. At 16 °C to 18 °C, development of the egg is slightly retarded, but hatching success and survival of larvae was higher. At 20 °C to 26 °C, development and survival through the larval stage was up to 59 percent (Hamman 1981). Juvenile temperature preference tests showed that preferred temperatures ranged from 21.9 °C to 27.6 °C. The most preferred temperature for juveniles and adults was estimated to be 24.6 °C. Temperatures near 24 °C are also needed for optimal development and growth of young (Miller et al. 1982).

Only two Colorado squawfish confirmed spawning sites, as defined in the Colorado Squawfish Recovery Plan, have been located in the Basin: river mile 16.5 of the Yampa River and river mile 156.6 of the Green River. These areas have the common characteristics of coarse cobble or boulder substrates forming rapids or riffles associated with deeper pools or eddies. It is believed that a stable, clean substrate is necessary for spawning and incubation. Substrates are swept clean of finer sediments by high flows scouring the bed prior to the spawning period.

O'Brien (1984) studied the hydraulic and sediment transport dynamics of the cobble bar within the Yampa River spawning site and duplicated some of its characteristics in a laboratory flume study. Based on field observations, he reported:

"On the rising limb of the hydrograph, sands are deposited in the cobble interstices. These sands are interchanged between the bed and the suspended zone for discharges less than bankfull. Depending on the supply-capacity relationship, either deposition or scour could be occurring. When the cobbles move, the sand, of course, is washed from the interstices and may be completely removed from around the cobbles. Rearrangement of the cobbles will result in more stability of the armor layer. On the falling limb, the armor layer becomes a trap for sands until finally, the sand reservoir is again filled. Without cobble movement, sand will be scoured only to a depth of one-half to one median cobble diameter below the cobble bed surface."

In the flume experiments, the sand level was observed approximately 0.50 to 1 cobble diameter below the surface of the cobble bed, which compared to field observations of sand depth at approximately 0.50 to 1 median cobble diameter. O'Brien reported a cobble size range of 50-100 mm with a median size of 75 mm at the spawning site. Milhous (1982) proposes discharges of approximately 0.50 of that required to initiate cobble movement will be capable of extracting sands and fines from the cobble substrate. Thus, after the supply of sand diminishes, flows of sufficient magnitude and duration are required to scour the cobble bed in preparation for spawning and incubation.

Although the location of spawning areas in the Colorado River is not well defined, the presence of larvae downstream of the Walker Wildlife Area, in the Loma to Black Rocks reach and near the confluence of the Dolores River, demonstrates that spawning does occur. Osmundson and Kaeding (1989 and 1991) reported that water temperatures in the Colorado River were suitable for spawning in the Grand Junction area. In 1986, a year of high runoff, suitable temperatures for spawning (20 °C) occurred in the first week of August. In 1989, a year of low runoff, the mean temperature reached 20 °C during the last week of June. Miller et al. (1982) and Archer et al. (1986) demonstrated that Colorado squawfish often migrate considerable distances to spawn in the Green and Yampa Rivers, and similar movement has been noted in the main stem Colorado River.

Miller et al. (1982) concluded from collections of larvae and young-of-year below known spawning sites that there is a downstream drift of larval Colorado squawfish following hatching. Extensive studies in the Yampa and upper Green Rivers have demonstrated downstream distribution of young Colorado squawfish from known spawning areas (Archer et al. 1986; Haynes et al. 1985). Miller et al. (1982) also found that young-of-year Colorado squawfish, from late summer through fall, preferred natural backwater areas of zero velocity and less than 1.5-foot depth over a silt substrate. Juvenile Colorado squawfish habitat preferences are similar to that of young-of-year fish, but they appear to be mobile and more tolerant of lotic conditions away from the sheltered backwater environment.

Information on radio-tagged adult Colorado squawfish during fall suggests that fish seek out deep water areas in the Colorado River (Miller et al. 1982), as do many other riverine species. River pools, runs, and other deep water areas, especially in upstream reaches, are important winter habitats for Colorado squawfish.

Very little information is available on the influence of turbidity on the endangered Colorado River fishes. It is assumed, however, that turbidity is important, particularly as it affects the interaction between introduced fishes and the endemic Colorado River fishes. Because these endemic fishes have evolved under natural conditions of high turbidity, it is concluded that the retention of these highly turbid conditions is an important factor for these endangered fishes. Reduction of turbidity may enable introduced species to gain a competitive edge which could further contribute to the decline of the endangered Colorado River fishes.

Migration

Radio-telemetry studies show upstream and downstream movement of adult Colorado squawfish in the main stem Colorado River. The most dramatic movement was exhibited by a fish implanted with a radio transmitter at Gypsum Canyon in upper Lake Powell on April 5, 1982. The fish was contacted next in the lower Cataract Canyon area on July 9, 1982. The next contact was made above the Black Rocks area of Ruby Canyon, some 160 miles upstream. The movement was accomplished in 41 days and is believed to be related to spawning. At the end of September 1982, this fish was located in the Colorado

River in the vicinity of Clifton, Colorado (river mile 178), nearly 200 river miles from its furthest documented downstream location.

Other radio-tagged fish in the Colorado River have not displayed such dramatic migratory behavior. Radio-telemetry studies conducted by the Colorado River Fishery Project from 1982-1989 (Miller et al. 1982; Archer et al. 1986; Osmundson and Kaeding 1989), which focused on upstream reaches of the Colorado River in and around the Grand Valley, provide the best indication of use of the 15-mile reach above the confluence of the Gunnison River at one time or another during the field season. Movement of these fish during a field season was generally limited to 25-30 miles.

During 1986-1988, the Fishery Project radio telemetered 17 adult Colorado squawfish collected from the 15-mile reach above the Gunnison River in June (Osmundson and Kaeding 1989). The fish exhibited a diversity of localized movements throughout the Grand Valley but spent a major part of time in the 15-mile reach. Two remained in the reach throughout the estimated spawning period.

Spawning Activity

A suspected prespawning aggregation of adult Colorado squawfish was observed by Fishery Project personnel at river mile 178.3 in the 15-mile reach above the Gunnison River confluence in mid-July 1982. In the first observation, three radio-tagged fish were tracked to one riverine pool area, and nine adults at or near spawning condition were then captured there after limited net sampling efforts. The aggregation occurred a few days after mean daily water temperature had reached 20 °C and during a time when runoff flows were dropping off sharply. A second aggregation was noted at river mile 175.3, 12 days after the initial observation. Drifting trammel nets through an area occupied by two fish equipped with transmitters yielded an additional male Colorado squawfish in spawning condition. During this same time period, an adult female was captured near river mile 175 that weighed nearly 1 pound more than when previously captured a month earlier, suggesting the development of spawning (gravid) condition.

Larval Occurrence

Fishery Project studies included the routine sampling of the larval-fish community both within and downstream of the 15-mile reach. During 5 years of investigation, 70 larval squawfish were collected with fine-mesh hand nets from the two Colorado River reaches in the Grand Valley immediately upstream and downstream of its confluence with the Gunnison River. Although the sampling effort was similar in the two river reaches, 96 percent of the larval captures occurred downstream of the Gunnison River confluence (river miles 162-164). Only two (3 percent) of the larvae were collected from the upstream reach. These observations may indicate that most fish were spawned in the downstream reach or that the larvae were deposited in the upstream reach and drifted downstream to the area where most of the captures were recorded.

Postlarval Young-of-Year Occurrence

No postlarval young-of-year Colorado squawfish greater than 25 mm total length were collected from above the Gunnison River confluence in a total of 57 samples collected in the fall of 1982-1986. However, a total of 62 Colorado squawfish were collected in an 18-mile reach below the confluence of the Gunnison River (54 samples). The 1982-1984 catch rate of young-of-year Colorado squawfish in the 10-mile reach immediately downstream of the confluence of the Gunnison River (river miles 160-170) warranted classification of this reach as a "Young-of-Year Nursery Area" by the Basin Biology Subcommittee (U.S. Fish and Wildlife Service 1984).

Nonspawning Adult Occurrence

Osmundson and Kaeding (1989) reported that adult Colorado squawfish catch rates in the upstream 15-mile reach were twice as high as those in the adjacent downstream river reach. During 1986-1989 adults were most abundant in a 1.3-mile segment (river miles 174.4-175.7) of the 15-mile reach during high water, particularly in two gravel-pit ponds that were accessible during high flows. These fish may have moved into these ponds to feed and rest, or they may have been attracted to the warm, productive environments that the ponds provided (pond temperatures were as much as 10.5 °C warmer than the adjacent river). Some of the squawfish captured from one pond were well tuberculated by June 3, when nearby river temperatures were only 10 °C-13 °C (Kaeding, pers. comm.). It has been hypothesized by some investigators that thermal energy units above those provided in the mainstream are important to gonadal maturation. If this is true, then access to these sheltered off-channel pools may be very important to successful spawning in the upper reaches of the Colorado River. Historically, bottomlands that routinely flooded during the spring runoff period would have provided these warm productive habitats; in recent years, flooded gravel pits may have provided the only comparable habitat.

Razorback Sucker

The razorback sucker, an endemic species unique to the Colorado River Basin, was historically abundant and widely distributed within warmwater reaches throughout the Colorado River Basin. Historically, razorback suckers were found in the main stem Colorado River and major tributaries in Arizona, California, Colorado, Nevada, New Mexico, Utah, Wyoming, and in Mexico (Ellis 1914; Minckley 1983). Bestgen (1990) reported that this species was once so numerous that it was commonly used as food by early settlers and, further, that commercially marketable quantities were caught in Arizona as recently as 1949. In the Upper Basin, razorback suckers were reported in the Green River to be very abundant near Green River, Utah, in the late 1800's (Jordan 1891). An account in Osmundson and Kaeding (1989) reported that residents living along the Colorado River near Clifton, Colorado, observed several thousand razorback suckers during spring runoff in the 1930's and early 1940's. In the San Juan River drainage, Platania and Young (1989) relayed historical accounts of razorback suckers ascending the Animas River to Durango, Colorado, around the turn of the century.

A marked decline in populations of razorback suckers can be attributed to construction of dams and reservoirs, introduction of nonnative fishes, and removal of large quantities of water from the Colorado River system. Dams on the main stem Colorado River and its major tributaries have segmented the river system and drastically altered flows, temperatures, and channel geomorphology. Major changes in species composition have occurred due to the introduction of numerous nonnative fishes, many of which have thrived due to man-induced changes to the natural riverine system.

The current distribution and abundance of the razorback sucker have been significantly reduced throughout the Colorado River system (McAda 1987; McAda and Wydoski 1980; Holden and Stalnaker 1975; Minckley 1983; Marsh and Minckley 1989; Tyus 1987). The only substantial population of razorback suckers remaining, made up entirely of old adults (McCarthy and Minckley 1987), is found in Lake Mohave; however, they do not appear to be successfully recruiting. While limited numbers of razorback suckers persist in other locations in the Lower Colorado River, they are considered rare or incidental and may be continuing to decline.

In the Upper Basin, above Glen Canyon Dam, razorback suckers are found in limited numbers in both lentic and lotic environments. The largest population of razorback suckers in the Upper Basin is found in the upper Green River and lower Yampa River (Tyus 1987). Lanigan and Tyus (1989) estimated that from 758 to 1,138 razorback suckers inhabit the upper Green River. In the Colorado River, most razorback suckers occur in the Grand Valley area near Grand Junction, Colorado; however, they are increasingly rare. Osmundson and Kaeding (1991) report that the number of razorback sucker captures in the Grand Junction area has declined dramatically since 1974.

Razorback suckers are in imminent danger of extirpation in the wild. The specific causes of this species' continued decline are largely unknown at this time. As Bestgen (1990) pointed out:

"Reasons for decline of most native fishes in the Colorado River Basin have been attributed to habitat loss due to construction of mainstream dams and subsequent interruption or alteration of natural flow and physio-chemical regimes, inundation of river reaches by reservoirs, channelization, water quality degradation, introduction of nonnative fish species and resulting competitive interactions or predation, and other man-induced disturbances (Miller 1961, Joseph et al. 1977, Behnke and Benson 1983, Carlson and Muth 1989, Tyus and Karp 1989). These factors are almost certainly not mutually exclusive, therefore it is often difficult to determine exact cause and effect relationships."

The virtual absence of any recruitment suggests a combination of biological, physical, and/or chemical factors that may be affecting the survival and recruitment of early life stages of razorback suckers. Within the Upper Basin, recovery efforts endorsed by the Recovery Implementation Program include the capture and removal of razorback suckers from all known locations for genetic analyses and development of discrete brood stocks if necessary. These measures have been undertaken to develop refugia populations of the

razorback sucker from the same genetic parentage as their wild counterparts such that, if these fish are genetically unique by subbasin or individual population, then separate stocks will be available for future augmentation. Such augmentation may be a necessary step to prevent the extinction of razorback suckers in the Upper Basin.

Critical Habitat

Critical habitat has been designated within the 100-year floodplain of the razorback sucker's historical range in the following sections of the Upper Basin, excluding the San Juan River Basin (59 F.R. 13374).

Colorado, Moffat County. The Yampa River and its 100-year floodplain from the mouth of Cross Mountain Canyon in T. 6 N., R. 98 W., section 23 (6th Principal Meridian) to the confluence with the Green River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian).

Utah, Uintah County; and Colorado, Moffat County. The Green River and its 100-year floodplain from the confluence with the Yampa River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian) to Sand Wash in T. 11 S., R. 18 E., section 20 (6th Principal Meridian).

Utah, Uintah, Carbon, Grand, Emery, Wayne, and San Juan Counties. The Green River and its 100-year floodplain from Sand Wash at river mile 96 at T. 11 S., R. 18 E., section 20 (6th Principal Meridian) to the confluence with the Colorado River in T. 30 S., R. 19 E., section 7 (6th Principal Meridian).

Utah, Uintah County. The White River and its 100-year floodplain from the boundary of the Uintah and Ouray Indian Reservation at river mile 18 in T. 9 S., R. 22 E., section 21 (Salt Lake Meridian) to the confluence with the Green River in T. 9 S., R. 20 E., section 4 (Salt Lake Meridian).

Utah, Uintah County. The Duchesne River and its 100-year floodplain from river mile 2.5 in T. 4 S., R. 3 E., section 30 (Salt Lake Meridian) to the confluence with the Green River in T. 5 S., R. 3 E., section 5 (Uintah Meridian).

Colorado, Delta and Mesa Counties. The Gunnison River and its 100-year floodplain from the confluence with the Uncompahgre River in T. 15 S., R. 96 W., section 11 (6th Principal Meridian) to Redlands Diversion Dam in T. 1 S., R. 1 W., section 27 (Ute Meridian).

Colorado, Mesa and Garfield Counties. The Colorado River and its 100-year floodplain from Colorado River Bridge at exit 90 north off Interstate 70 in T. 6 S., R. 93 W., section 16 (6th Principal Meridian) to Westwater Canyon in T. 20 S., R. 25 E., section 12 (Salt Lake Meridian) including the Gunnison River and its 100-year floodplain from the Redlands Diversion Dam in T. 1 S., R. 1 W., section 27 (Ute Meridian) to the confluence with the Colorado River in T. 1 S., R. 1 W., section 22 (Ute Meridian).

Utah, Grand, San Juan, Wayne, and Garfield Counties. The Colorado River and its 100-year floodplain from Westwater Canyon in T. 20 S., R. 25 E., section 12 (Salt Lake Meridian) to full pool elevation, upstream of North Wash, and including the Dirty Devil arm of Lake Powell in T. 33 S., R. 14 E., section 29 (Salt Lake Meridian).

Biology

Specific information on biological and physical habitat requirements of the razorback sucker is very limited. Until very recently, fisheries research investigations throughout the Upper Basin have focused on the three listed Colorado River fishes, and data collected on the razorback sucker was largely coincident to those studies. Localized extirpation of razorback suckers from some localities, coupled with the species' continued decline in numbers and distribution, has prompted some research; however, details of its life history requirements, particularly in riverine environments, are still not fully understood.

In general, a natural hydrograph with a large spring peak, a gradually descending limb into early summer, and low stable flows through summer, fall, and winter are thought to create the best habitat conditions for endangered fishes while maintaining the integrity of the channel geomorphology. Prior to construction of large main stem dams and the suppression of spring peak flows, low velocity, off-channel habitats (seasonally flooded bottomlands and shorelines) were commonly available throughout the Upper Basin (Tyus and Karp 1989; Osmundson and Kaeding 1991). The absence of these seasonally flooded riverine habitats is believed to be a limiting factor in the successful recruitment of razorback suckers in their native environment (Tyus and Karp 1989; Osmundson and Kaeding 1991). Tyus (1987) and McAda and Wydoski (1980) reported springtime aggregations of razorback suckers in off-channel impoundments and tributaries; such aggregations are believed to be associated with reproductive activities. Tyus and Karp (1990) and Osmundson and Kaeding (1991) reported off-channel habitats to be much warmer than the main stem river and that razorback suckers presumably moved to these areas for feeding, resting, sexual maturation, spawning, and other activities associated with their reproductive cycle. While razorback suckers have never been directly observed spawning in turbid riverine environments within the Upper Basin, captures of ripe specimens, both males and females, have been recorded (Valdez et al. 1982; McAda and Wydoski 1980; Tyus 1987; Osmundson and Kaeding 1989; Tyus and Karp 1989; Tyus and Karp 1990; Osmundson and Kaeding 1991; Platania 1990) in the Yampa, Green, Colorado, and San Juan Rivers. Sexually mature razorback suckers are generally collected on the ascending limb of the hydrograph from mid-April through June and are associated with coarse gravel substrates (depending on the specific location).

Outside of the spawning season, adult razorback suckers occupy a variety of shoreline and main channel habitats including low runs, shallow to deep pools, backwaters, eddies, and other relatively slow velocity areas associated with sand substrates (Tyus 1987; Tyus and Karp 1989; Osmundson and Kaeding 1989; Valdez and Masslich 1989; Osmundson and Kaeding 1991; Tyus and Karp 1990).

Habitat requirements of young and juvenile razorback suckers in the wild are largely unknown, particularly in native riverine environments. Life stages, other than adults, have not been collected anywhere in the Upper Basin in recent times. The last confirmed documentation of razorback sucker juvenile in the Upper Basin was a capture in the Colorado River near Moab, Utah (Taba et al. 1965).

The current range of the razorback sucker in the Colorado River extends upstream to Rifle, Colorado. Most razorback suckers captured in the Grand Valley area have been located in flooded gravel-pit ponds adjacent to the river. However, Osmundson and Kaeding (1989) documented razorback sucker movement in various river habitats in the Grand Valley area. Additional surveys since 1988 have documented razorback suckers in riverside ponds as far upstream as river mile 235 near Rifle, Colorado (Burdick 1992).

Humpback Chub

Humpback chub generally do not make migrational movements in the upper Colorado River and tend to reside throughout the year within a limited reach of river. Humpback chub are found inhabiting narrow, deep canyon areas and are relatively restricted in distribution. They seldom leave their canyon habitat (U.S. Fish and Wildlife Service 1982). While humpback chub are regularly found dispersed in the Green and Yampa Rivers, the only major populations of humpback chub known to exist in the Upper Basin are located in Black Rocks and Westwater Canyons on the Colorado River.

Critical Habitat

Critical habitat has been designated within the humpback chub's historical range in the following sections of the Upper Basin (59 F.R. 13374).

Colorado, Moffat County. The Yampa River from the boundary of Dinosaur National Monument in T. 6 N., R. 99 W., section 27 (6th Principal Meridian) to the confluence with the Green River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian).

Utah, Uintah County; and Colorado, Moffat County. The Green River from the confluence with the Yampa River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian) to the southern boundary of Dinosaur National Monument in T. 6 N., R. 24 E., section 30 (Salt Lake Meridian).

Utah, Uintah and Grand Counties. The Green River (Desolation and Gray Canyons) from Sumners Amphitheater in T. 12 S., R. 18 E., section 5 (Salt Lake Meridian) to Swasey's Rapid in T. 20 S., R. 16 E., section 3 (Salt Lake Meridian).

Utah, Grand County; and Colorado, Mesa County. The Colorado River from Black Rocks in T. 10 S., R. 104 W., section 25 (6th Principal Meridian) to Fish Ford in T. 21 S., R. 24 E., section 35 (Salt Lake Meridian).

Utah, Garfield and San Juan Counties. The Colorado River from Brown Betty Rapid in T. 30 S., R. 18 E., section 34 (Salt Lake Meridian) to Imperial Canyon in T. 31 S., R. 17 E., section 28 (Salt Lake Meridian).

Bonytail

Little is known about the biological requirements of the bonytail, as the species has drastically declined in numbers in the Upper Basin shortly after 1960. Until recently, the Service considered the species extirpated from the Upper Basin; however, a recently collected specimen which exhibits many bonytail characteristics could indicate a small, extant population (Kaeding et al. 1986). It is thought that, should this species persist in the Colorado River, the preferred habitat would be in the larger river reaches.

Critical Habitat

Critical habitat has been designated within the bonytail's historical range in the following sections of the Upper Basin (59 F.R. 13374).

Colorado, Moffat County. The Yampa River from the boundary of Dinosaur National Monument in T. 6 N., R. 99 W., section 27 (6th Principal Meridian) to the confluence with the Green River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian).

Utah, Uintah County; and Colorado, Moffat County. The Green River from the confluence with the Yampa River in T. 7 N., R. 103 W., section 28 (6th Principal Meridian) to the boundary of Dinosaur National Monument in T. 6 N., R. 24 E., section 30 (Salt Lake Meridian).

Utah, Uintah and Grand Counties. The Green River (Desolation and Gray Canyons) from Sumner's Amphitheater (river mile 85) in T. 12 S., R. 18 E., section 5 (Salt Lake Meridian) to Swasey's Rapid (river mile 12) in T. 20 S., R. 16 E., section 3 (Salt Lake Meridian).

Utah, Grand County; and Colorado, Mesa County. The Colorado River from Black Rocks in T. 10 S., R. 104 W., section 25 (6th Principal Meridian) to Fish Ford in T. 21 S., R. 24 E., section 35 (Salt Lake Meridian).

Utah, Garfield and San Juan Counties. The Colorado River from Brown Betty Rapid in T. 30 S., R. 18 E., section 34 (Salt Lake Meridian) to Imperial Canyon in T. 31 S., R. 17 E., section 28 (Salt Lake Meridian).

EFFECTS OF THE ACTION

Impoundments and diversions have reduced peak discharges by 48 percent since 1942, while increasing base flows by 21 percent in some reaches. These depletions, along with a number of other factors, have resulted in such drastic reductions in the populations of the Colorado squawfish, humpback chub, bonytail, and razorback sucker that the Service has listed these species as endangered and has implemented programs to prevent them from becoming extinct.

Water depletions reduce the ability of the river to create and maintain critical habitat. Food supply, predation, and competition are important elements of the biological environment. Food supply is a function of nutrient supply and productivity, which could be limited by reduction of high spring flows brought about by water depletions. Predation and competition from nonnative fish species have been identified as factors in the decline of the endangered fishes. Water depletions contribute to alterations in flow regimes that favor nonnative fishes. The Service concludes that water depletions impact the primary constituent elements; however, reasonable and prudent alternatives have been developed by the Service that would avoid destruction or adverse modification to the critical habitat.

REASONABLE AND PRUDENT ALTERNATIVES

On January 21-22, 1988, the Secretary of the Interior; the Governors of Wyoming, Colorado, and Utah; and the Administrator of the Western Area Power Administration were cosigners of a Cooperative Agreement to implement the "Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin" (U.S. Fish and Wildlife Service 1987). An objective of the Recovery Program was to identify reasonable and prudent alternatives that would ensure the survival and recovery of the listed species while providing for new water development in the Upper Basin.

The following excerpts are pertinent to the consultation because they summarize portions of the Recovery Program that address depletion impacts, section 7 consultation, and project proponent responsibilities:

"All future Section 7 consultations completed after approval and implementation of this program (establishment of the Implementation Committee, provision of congressional funding, and initiation of the elements) will result in a one-time contribution to be paid to the Service by water project proponents in the amount of \$10.00 per acre-foot based on the average annual depletion of the project This figure will be adjusted annually for inflation [the current figure is \$13.41 per acre-foot] Concurrently with the completion of the Federal action which initiated the consultation, e.g., . . . issuance of a 404 permit, 10 percent of the total contribution will be provided. The balance . . . will be . . . due at the time the construction commences"

It is important to note that these provisions of the Recovery Program were based on appropriate legal protection of the instream flow needs of the endangered Colorado River fishes. The Recovery Program further states:

". . . it is necessary to protect and manage sufficient habitat to support self-sustaining populations of these species. One way to accomplish this is to provide long term protection of the habitat by acquiring or appropriating water rights to ensure instream

flows Since this program sets in place a mechanism and a commitment to assure that the instream flows are protected under State law, the Service will consider these elements under Section 7 consultation as offsetting project depletion impacts."

Thus, the Service has determined that project depletion impacts, which the Service has consistently maintained are likely to jeopardize the listed fishes, can be offset by (a) the water project proponent's one-time contribution to the Recovery Program in the amount of \$13.41 per acre-foot of the project's average annual depletion, (b) appropriate legal protection of instream flows pursuant to State law, and (c) accomplishment of activities necessary to recover the endangered fishes as specified under the Recovery Implementation Program Recovery Action Plan. The Service believes it is essential that protection of instream flows proceed expeditiously, before significant additional water depletions occur.

With respect to (a) above (i.e., depletion charge), the applicant will make a one-time payment which has been calculated by multiplying the project's average annual depletion (730 acre-feet) by the depletion charge in effect at the time payment is made. For Fiscal Year 1997 (October 1, 1996, to September 30, 1997), the depletion charge is \$13.41 per acre-foot for the average annual depletion which equals a total payment of \$9,789.30 for this project. This amount is adjusted annually for inflation on October 1 of each year based on the Consumer Price Index. The Service will notify the applicant of any change in the depletion charge by September 1 of each year. Ten percent of the total contribution (\$978.9), or total payment, will be provided to the Service's designated agent, the National Wildlife Foundation at the time of issuance of the Federal approvals from the Office of Surface Mining. The balance will be due at the time the construction commences. The payment will be included by the Office of Surface Mining as a permit stipulation. The funds will be used for acquisition of water rights (or directly related activities) to meet the instream flow needs of the endangered fishes; or when recommended by the Implementation Committee, the funds may be used to support other recovery activities for the Colorado River endangered fishes. All payment should be made to the National Fish and Wildlife Foundation.

National Fish and Wildlife Foundation
1120 Connecticut Avenue, N.W.
Suite 900
Washington, D.C. 20036

Each payment should be accompanied by a cover letter that identifies the project and biological opinion that requires the payment, the amount of payment enclosed, check number, and any special conditions identified in the biological opinion relative to disbursement or use of the funds (there are none in this instance). The cover letter also shall identify the name and address of the payor, the name and address of the Federal Agency responsible for authorizing the project, and the address of the Service office issuing the biological opinion. This information will be used by the Foundation to notify the payor, the lead Federal Agency, and the Service that payment has been

received. The Foundation is to send notices of receipt to these entities within 5 working days of its receipt of payment.

In order to further define and clarify processes outlined in sections 4.1.5, 4.1.6, and 5.3.4 of the Recovery Program, an additional section 7 agreement and Plan addressing section 7 consultation on depletion impacts was developed (U.S. Fish and Wildlife Service 1993). The section 7 agreement establishes a framework for conducting all future section 7 consultations on depletion impacts related to new projects and those associated with historic projects in the Upper Basin. Procedures outlined in the section 7 agreement will be used in conjunction with the Plan to determine if sufficient progress is being accomplished in the recovery of the endangered fishes to enable the Recovery Program to serve as a reasonable and prudent alternative to avoid jeopardy. The Plan was finalized on October 15, 1993, and will be reviewed annually.

In accordance with the agreement, the Service has agreed to assess impacts of projects that require section 7 consultation and determine if progress toward recovery has been sufficient for the Recovery Program to serve as a reasonable and prudent alternative. If sufficient progress is being achieved, biological opinions will be written to identify activities and accomplishments of the Recovery Program that support it as a reasonable and prudent alternative. If sufficient progress in the recovery of the endangered fishes has not been achieved by the Recovery Program, actions from the Plan will be identified which must be completed to avoid jeopardy to the endangered fishes. For historic projects, these actions will serve as the reasonable and prudent alternative as long as they are completed according to the schedule identified in the Plan. For new projects, these actions will serve as the reasonable and prudent alternative so long as they are completed before the impact of the project occurs. The Willow Creek Mine project is considered a new project.

The evaluation by the Service to determine if sufficient progress has been achieved considered (a) actions which result in a measurable population response, a measurable improvement in habitat for the fishes, legal protection of flows needed for recovery, or a reduction in the threat of immediate extinction; (b) status of fish populations; (c) adequacy of flows; and (d) magnitude of the project impact. In addition, the Service considered support activities (funding, research, information and education, etc.) of the Recovery Program if they help achieve a measurable population response, a measurable improvement in habitat for the fishes, legal protection of flows needed for recovery, or a reduction in the threat of immediate extinction. The Service evaluated progress separately for the Colorado River and Green River subbasins; however, it gave due consideration to progress throughout the Upper Basin in evaluating progress toward recovery.

Based on current Recovery Program accomplishments (Appendix B) and the expectation that the Plan will be fully implemented in a timely manner, the Service determined that sufficient progress has been achieved under the Recovery Program so that it could serve as the reasonable and prudent alternative to avoid jeopardy to the endangered fishes by the impacts caused by this permit. For historic projects, the responsibility for implementation of all elements of the reasonable and prudent alternative rests with the Recovery Program participants, not the individual project proponent. All

actions must be implemented according to the time schedule specified in the Plan. For new projects, the responsibility for implementation of elements of the reasonable and prudent alternative is shared by the Recovery Program and the applicant. Recovery Program participants are responsible for carrying out activities outlined in the Plan.

The Office of Surface Mining should condition the permit to retain jurisdiction in the event that the Recovery Program is unable to implement the Plan in a timely manner. In that case, as long as the lead Federal Agency has discretionary authority over the project, reinitiation of section 7 consultation may be required so that a new reasonable and prudent alternative can be developed by the Service.

INCIDENTAL TAKE

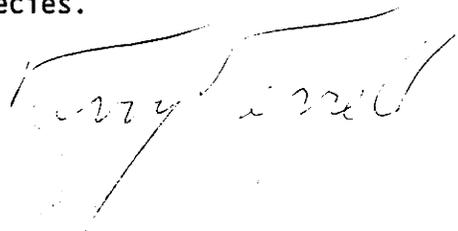
Section 9 of the Endangered Species Act, as amended, prohibits any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species without a special exemption. Under the terms of section 7(b)(4) and section 7(0)(2), taking that is incidental to and not intended as part of the agency action is not considered taking within the bounds of the Endangered Species Act, provided that such taking is in compliance with the incidental take statement.

The Service does not anticipate that the proposed action will result in any incidental take of the endangered fishes.

CONCLUSION

This concludes the Service's biological opinion on the impacts of the proposed project. This opinion was based upon the information described herein. If new information becomes available, new species listed, or should there be any changes in the total average annual amount of water depleted by this project (730 acre-feet per year) or any other project change which alters the operation of the project from that which is described in your correspondence and which may affect any endangered or threatened species in a manner or to an extent not considered in this biological opinion (see 50 CFR 402.16), formal section 7 consultation should be reinitiated.

Thank you for your cooperation in the formulation of this biological opinion and your interest in conserving endangered species.



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APPENDIX A

(insert letter from applicant)

MAR 13 1989



United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
UTAH STATE OFFICE

2078 ADMINISTRATION BUILDING
1745 WEST 1700 SOUTH
SALT LAKE CITY, UTAH 84104-5110

TAKE
PRIDE IN
AMERICA

In Reply Refer To
(FWE)

March 9, 1989

Diane Nielson, Director
Utah Department of Oil, Gas, and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1230

Re: Willow Creek Project (AMR/007/912)

Dear Ms. Nielson:

We have examined the information provided by your letter of January 20, 1989 for the subject project. It appears that listed endangered or threatened species, species proposed for listing, or designated as proposed critical habitat may occur in the area of influence of this action. To comply with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal agencies or their designees are required to obtain from the Fish and Wildlife Service (Service) information concerning any species or critical habitat, listed or proposed to be listed, which may be present in the area of a proposed construction project. Therefore, we are furnishing you the following list of species which may be present in the concerned area:

Bald Eagle	HALIAEETUS LEUCOCEPHALUS
Humpback Chub	GILA CYPHA
Bonytail Chub	GILA ELEGANS
Colorado Squawfish	PTYCHOCEILUS LUCIUS
Uinta Basin Hookless Cactus	SCLEROCACTUS GLAUCUS

We would like to bring to your attention species which are candidates for official listing as threatened or endangered species (Federal Register Vol. 49, No. 100, May 22, 1984, Vol. 50, No. 181, September 18, 1985 and Vol. 50 # 188, September 27, 1985). While these species have no legal protection at present under the Endangered Species Act, we would ask that you take care to avoid them if they are found in the area. In addition, some of these candidate species may be added to the endangered species list during your planning process. You should contact this office prior to putting your plan into final form to determine if any of these candidate species have been officially listed. Candidate species that may occur in the area of your project are as follows:

Razorbacked Sucker	XYRAUCHEN TEXANUS
Creutzfeldt Catseye	CRYPTANTHA CREUTZFELDTII
Yellow Blanketflower	GUILARDIA FLAVA
Canyon Sweetvetch	HEDYSARUM OCCIDENTALE VAR. CONONE

Section 7(c) also requires the Federal agency proposing a major construction activity that significantly affects the quality of the human environment, to conduct and submit to the Service a biological assessment to determine the effects of the proposal on listed and proposed species. The biological assessment shall be completed within 180 days after the date on which initiated or a time mutually agreed upon between the agency and the Service. Before physical modification/alteration of a major Federal action is begun the assessment must be completed. If the biological assessment is not begun within 90 days, this list should be verified with us prior to initiation of the assessment. We do not feel that we can adequately assess the affects of the proposed action on listed and proposed species or critical habitat and proposed critical habitat without a complete assessment.

When conducting a biological assessment a thorough review of the project and the potential impacts of the project on threatened and endangered species within the immediate project area as well as the area of influence must be made.

After your agency has completed and reviewed the assessment, it is your responsibility to determine if the proposed action "may affect" any of the listed species or critical habitats. You should also determine if the action is likely to jeopardize the continued existence of proposed species or result in the destruction or an adverse modification of any critical habitat proposed for such species. If the determination is "may affect" for listed species you must request in writing formal consultation from the State Supervisor, Fish and Wildlife Enhancement, at the address given above. In addition, if you determine that the proposed action is likely to jeopardize the continued existence of proposed species or result in the destruction of adverse modification of proposed critical habitat, you must confer with the Service. At that time, you should provide this office a copy of the biological assessment and any other relevant information that assisted you in reaching its conclusion.

The Service can enter into formal Section 7 consultation only with another Federal agency. State, county or any other governmental or private organizations can participate in the consultation process, help prepare information such as the biological assessment, participate in meetings, etc. Your attention is also directed to Section 7(d) of the Endangered Species Act, as amended, which underscores the requirement that the Federal agency or the applicant shall not make any irreversible or irretrievable commitment of resources during the consultation period which, in effect, would deny the formulation or implementation of reasonable and prudent alternatives regarding their actions on any endangered or threatened species.

The Service also calls to your attention that the following Migratory Birds of High Federal Interest could occur in the area of your planned work.

Prairie Falcon
Cooper's Hawk
Willimson's Sapsucker
Golden Eagle
Flammulated Screech Owl

Several of these species might occur in the riparian habitats situated in the canyon bottoms associated with your project area and may be impacted by planned restoration activities. The cliff nesting raptors could have nesting activities interrupted by disturbances if construction occurs during that period of time.

The Service representative who will provide you with technical assistance is Clark D. Johnson at (524-5649)

Sincerely,

CLARK D. JOHNSON

Clark D. Johnson
Acting State Supervisor

bcc: AWE/Mail Stop 60120
Official file
Reading file
✓ USM Denver, Colorado

CDJ/kas:3-9-89
DOGMWLCK.903

MAR 13 1989



United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
UTAH STATE OFFICE
2078 ADMINISTRATION BUILDING
1745 WEST 1700 SOUTH
SALT LAKE CITY, UTAH 84104-5110



UTAH

In Reply Refer To
(FWE)

March 9, 1989

UT-0571

Diane Nielson, Director
Utah Department of Oil, Gas, and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1230

Re: Willow Creek Project (AMR/007/912)

Dear Ms. Nielson:

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Canyon Sweetvetch	HEDYSARUM OCCIDENTALE VAR. CONONE

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The Service representative who will provide you with technical assistance is Clark D. Johnson at (524-5649)

Sincerely,

CLARK D. JOHNSON

Clark D. Johnson
Acting State Supervisor

bcc: AWE/Mail Stop 60120
Official file
Reading file
✓OSM Denver, Colorado

CDJ/kas:3-9-89
DOGMWLCK.903

November 14, 1996

MEMORANDUM

TO: Ron Singh, Utah Mine Coordinator
Program Support Division

FROM: Foster Kirby, Archaeologist
Program Support Division

Foster E. Kirby

SUBJECT: Willow Creek Mine - Cultural Resources and Mining Plan Approval

Based on review of Plateau Mining's Willow Creek Permit Application Package (PAP), Utah Division of Oil Gas and Mining's (UDOGM) permit approval package, and UDOGM's consultations with the Utah State Historic Preservation Officer (SHPO), the following observations and recommendations are provided:

As a result of cultural resource studies in the proposed Willow Creek Mine area, six sites were identified. Three of the sites (42Cb580, 581, and 582) were reclaimed as part of a UDOGM abandoned mine reclamation project conducted in 1990. The remaining sites (42Cb1000, 42Cb1001, and 42Cb1027) were evaluated against National Register criteria with 42Cb1000 and 42Cb1001 being found eligible for listing. Additional consultations on project effects found that site 42Cb1001 (pictograph panels), though lying within a disturbance zone, would not be affected by mining operations. On the other hand, several features associated with the Castle Gate Mines and Castle Gate townsite recorded as site 42Cb1000 would be impacted by mining operations. UDOGM placed a stipulation on their permit approval protecting a series of features at 42Cb1000 from disturbance until appropriate mitigation was satisfactorily completed.

The company's cultural resource contractor, Sagebrush Archaeological Consultants, completed the mitigation work and submitted a report entitled "Data Recovery of Portions of Site 42Cb1000 for The Willow Creek Mine Project, Carbon County, Utah." The SHPO found the report acceptable and mitigation successfully completed. No further cultural resources work is required at this time.

Successful consultations between the SHPO and UDOGM were conducted for the mine permitting action. These consultations can be referenced in the OSM mining plan approval as satisfying OSM cultural resource requirements.



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

150 West North Temple
 3rd Floor, Suite 352
 Salt Lake City, Utah 84114-2021
 801-538-5240
 801-538-2910 (Fax)
 801-538-5312 (TDD)

James W. Carver
 Executive Director
 Division Director

June 20, 1996

Post-it Fax Note	7671	Date	6-20-96
To	Ben Grimes	From	Paul
Co/Dept	ASD-1324	Co	ASD
Phone #		Phone #	
Fax #	2-368-844-533	Fax #	

Ben Grimes
 Cyprus Plateau Mining Corporation
 P. O. Drawer PMC
 Price, Utah 84501

Re: Willow Creek Permit Condition No. 2, Cyprus Plateau Mining Corporation, Willow Creek Mine, ACT/00/0038, Folders #2 and 3, Carbon County, Utah

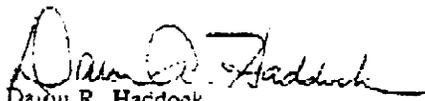
Dear Mr. Grimes,

On June 14, 1996, the Division received a letter from the Division of State History recommending acceptance of a data recovery report for portions of historical site 42 Cb 1000. Condition No. 2 on the Willow Creek permit required that certain features of this site not be disturbed until certain mitigation was completed and the Division and State History had accepted the results. The Division considers that the requirements of this stipulation have been met.

Under the requirements of R645-301-411 140, the information in the report should be included in the Mining and Reclamation Plan. After you receive the report, please review it and submit an amendment to include appropriate portions in the plan. Since the sites will be destroyed, it should not be necessary to include the information in the confidential section.

Thank you for your cooperation. Please call if you have any questions.

Sincerely,


 David R. Haddock
 Permit Supervisor



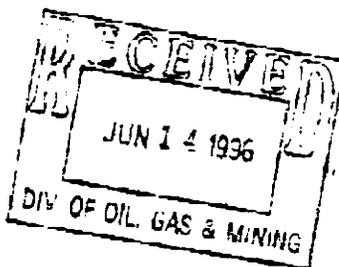
Department of Community & Economic Development
 Division of State History
 Utah State Historical Society



Michael O. Leavitt
 Governor
 Max J. Evans
 Director

330 Rio Grande
 Salt Lake City, Utah 84103-1182
 (801) 538-0000 • FAX: 533-8502 • TDD: 533-8502
 cehistory.usnsd@com.state.ut.us

June 12, 1996



Ms. Pamela Grubaugh-Litig
 Permit Supervisor
 Division of Oil, Gas and Mining
 1594 West North Temple, Suite 12101 (C) Box 145801
 Salt Lake City, UT 84114-5801

RE: Data Recovery of Portions of Site 42Ch1000 for The Willow Creek Mine Project, Carbon County, Utah

In Reply Please Refer to Case No. 95-0817

Dear Ms. Grubaugh-Litig:

*95-10071238-2
 Copy from [unclear]*

The Utah State Historic Preservation Office received the above referenced report on June 10, 1996. I have not had a chance to finish a technical review of the report, however, I do recommend acceptance of the report for mitigation as completion of mitigation for purposes of section UCA 9-8-404. It looks good, and I wanted to discuss with you and Mike Polk the possibility of publishing this in some format, please give me a call.

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, or Barbara L. [unclear] at (801) 533-3563. My computer address on internet is: cehistory.jdykman@email.state.ut.us

As ever,

 James B. Dykman
 Compliance Archaeologist

JLD:95-0817

- cc: Sagebrush Archaeological Consultants, 3670 Quincey Avenue, Suite 203, Ogden, Utah 84403
- cc: Cyprus Platan Mining Corporation, P. O. Box PMC, Price, Utah 84501

Preserving and Sharing Utah's Past for the Present and Future

This information is provided on request to assist DDCM with its Section 106 responsibilities as specified in 36CFR800. If you have questions, please contact me at (801) 533-1555 or Barbara Murphy at (801) 533-1563. My computer address on Internet is: jdykman@email.state.ut.us

As ever,



James W. Dykman
Compliance Archaeologist

JLD:95-0817

- c: Sagebrush Archaeological Consultants, 3670 Quincy Avenue, Suite 203, Ogden, Utah 84405
- c: Cyprus Placau Mining Corporation, 101 Box PMC, Price, Utah 84501



State of Utah

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



Michael O. Leavitt
 Governor
 Mark J. Evans
 Director

300 No Grande
 Salt Lake City, Utah 84101-1182
 (801) 533-3500
 FAX: (801) 533-3503

April 22, 1996

Ms. 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: Willow Creek Mine Project/Castle Gate Mine Site (42CB1000)

42/1007/038 #3

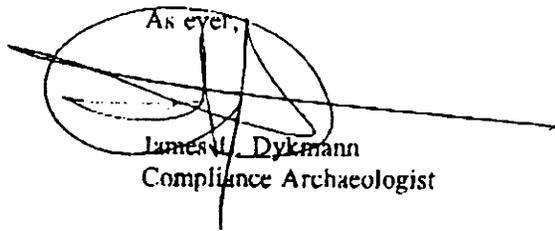
In Reply Please Refer to Case No. 95-0817

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office received the above referenced report. After consideration of the Sagebrush report, the Utah Preservation Office makes the following recommendation to DOGM.

1. As a state mine case the consultation is being completed under UCA 9-8, and our office advises that it appears that five features of the 42CB 1000 cannot be avoided by the project, therefore there will be an Adverse Effect.
2. Our office therefore recommends that data recovery be carried out to mitigate the effects expected to occur to the five features on the mine property. For features 5, 10, 61, and 65, our office recommends that large format photographs be taken of the structures for state level documentation to the Historic American Engineering Record standards. Second, it is recommended that efforts be made to locate and reproduce historic photographs of the features. Third, for all of the features, including Feature 20, it is recommended that historic research be undertaken and a historical narrative be completed. Lastly it recommended that feature 20, a dugout structure of unknown origin or function be excavated to archaeological standards in order to establish its relationship to the Castle Gate Mine and mitigate effect.
3. If the mitigation standards are acceptable to all parties, then a letter of agreement or permit stipulation should be issued for the project as part of the permit. Our office will review the report when it is completed and make recommendations to DOGM as to the acceptability of the mitigation. No work on these features should be undertaken until the report has been accepted.
4. If the mine is later permitted under federal law, these state mitigation measures may or may not be acceptable to OSM, and additional mitigation and legal review for historic features would need to be carried out under federal law as outlined by 36CFR 800 and appropriate OSM regulation.

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, or Barbara L. Murphy at (801) 533-3563. My computer address on internet is: jdykman@email.state.ut.us

An eye,

James W. Dykman
Compliance Archaeologist

JLD:95-0817

- c: Sagebrush Archaeological Consultants, 3670 Quincy Avenue, Suite 203, Ogden, Utah 84403
- c: Cyprus Plateau Mining Corporation, PO Box PMC, Price, Utah 84501

Attachment A
SPECIAL CONDITIONS

1. Cyprus Plateau Mining Corporation (CPMC) is not authorized to conduct mining operations within the permit area on lands under federal jurisdiction until receiving the federal coal leases and obtaining federal mine approval.
2. Features 5, 10, 20, 61, and 65 of Cultural Resource Site 42 Cb 1000 must not be disturbed until the applicant has completed mitigation required by the Division of State History and until the Division and State History have accepted the results.
3. CPMC must amend the Mining and Reclamation Plan (MRP) within 14 days of receiving the 1996 Order I soil survey laboratory data; both Section 3.1 SOILS INFORMATION and Exhibit 5 SOILS INFORMATION, must be amended with the 1996 Order -I soil survey data resource discussion and chemical and physical analyses results, respectively. If analysis results indicate any departure from acceptance criteria as outlined in the Division Topsoil/Overburden Guidelines, CPMC must immediately cease soil salvage operations, consult Division for development and implementation of appropriate operation and remediation plans, and correct and update the MRP.



State of Utah

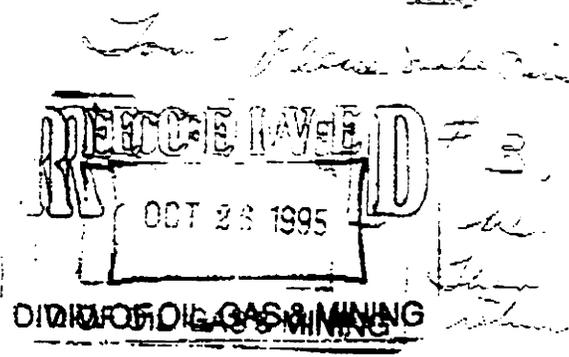
Department of Community & Economic Development
Division of State History
Utah State Historical Society



Michael O. Leavitt
Governor
Max J. Evans
Director

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

October 24, 1995



Ms. 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: Request for Agency Review, Willow Creek Permit Application Package, Willow Creek Mine, Cyprus Plateau Mining Corporation, PRO/007/038, Folder #2, Carbon County, Utah

In Reply Please Refer to Case No. 95-0817

Jerry P. ...

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office received the above referenced permit application package on October 19, 1995. After consideration of cultural resource material in section 1 and 3, the Utah Preservation Office has the following comments for consideration.

1. The background information material completed by the cultural and paleontological is accurate and well done. Our office had a chance to review most of the material as it was being developed for the mine plan. Our office concurs with the accuracy of the material.
2. As you are aware, site 42CB 1000 is a complex site, with its significance tied to not only to the physical structure of the mine, but the importance of the whole site in Utah History. As you know our office has reviewed some of the plans that may effect the mine. I believes that a determination of No Adverse Effect can be reached if sensitive treatment of the mine property is considered during the opening of the mine. The Castle Gate explosion would a focus of our concern, and our office recommends that this area not be reused.
3. It appears that the other sites would not be effected by the mine plan.

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. My computer address on internet is: jdykman@email.state.ut.us

Your humble servant,

[Signature]
James L. Dykmann
Compliance Archaeologist

JLD:95-0817 OSM

Mining Plan Approval Document No. UT-0071
Page 1 of 3

UNITED STATES

DEPARTMENT OF THE INTERIOR

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

Cyprus Plateau Mining Corporation
PO Drawer PMC
Price, UT 84501

for the Willow Creek Mine mining plan for Federal lease UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779 subject to the following conditions. Cyprus Plateau Mining Corporation is hereinafter referred to as the operator.

1. Statutes and Regulations. --This mining plan approval is issued pursuant to Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779; 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 Water Pollution Control Act (33 U.S.C. 1151 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), and other applicable Federal laws.
2. This document approves the Willow Creek Mine mining plan action for Federal leases UTU-73975, SL-046652, SL-048442-050115, U-0146345, and U-0148779, and authorizes coal development or mining operations on the Federal leases within of the mining plan approval, as described below. This authorization is not valid beyond the legal boundaries described below and shown on the map appended hereto as Attachment A.

Lease UTU-73975:

T12S, R9E, S1M, Section 25 and portions of Section 26
T12S, R10E, S1M, Portions of Sections 28, 29 and 30
Approximately 932 hectares (2,300 acres).

Lease SL-046652:

T12S, R10E, S1M, Portions of Sections 33 and 34

Mining Plan Approval Document No. UT-0071 Page 2 of 3

T13S, R10E, S1M, Portions of Section 3
Approximately 325 hectares (802 acres).

Lease SL-048442-050115:

T13S, R10E, S1M, Portions of Sections 1, 3, 4, 10 and
11

T13S, R10E, S1M, Portions of Section 1
Approximately 713 hectares (1,761 acres).

Lease U-0146345:

T12S, R10E, S1M, Portions of Sections 33, 34 and 35
Approximately 470 hectares (1,160 acres).

Lease U-0148779:

T12S, R10E, S1M, Portions of Sections 26 and 27
Approximately 502 hectares (1,240 acres).

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 leases, this mining plan approval, and the requirements of the Utah Permit No. ACT/007/038 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 Mining 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 Mining in coordination with OSM.

Mining Plan Approval Document No. UT-0071 Page 3 of 3

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.

FOI Piet delWitt
Assistant Secretary, Land and Minerals Management

9/3/97
Date



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

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

June 27, 1997

Ben Grimes
Cyprus Plateau Mining Corporation
P.O. Drawer PMC
Price, Utah 84501

97-07-03-03

Re: State Permit (Including Federal Lease UTU-73975), Willow Creek Mine, Cyprus Plateau Mining, ACT/007/038, Folder #3, Carbon County, Utah

Ben
Dear Mr. Grimes:

I am enclosing the permit for the Willow Creek Mine with the condition that coal under federal jurisdiction cannot be mined until the mining plan approval is obtained from the Secretary of the Interior. This permit supersedes the April 23, 1996 permit and includes Federal Lease UTU-73975, which Cyprus Plateau Mining Corporation obtained on December 18, 1996.

Please have both permits signed and return one to the Division. If you have any questions please call me or Pamela Grubaugh-Littig.

Yours very truly,

James W. Carter
Director

Enclosure

cc: Ranvir Singh, OSM
O:\007038.WIL\FINAL\APPROV.LET

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

Cyprus Plateau Mining Corporation
Willow Creek Mine
ACT/007/038
Carbon County, Utah

June 26, 1997

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 - Section 510 (c), Memo to File, June 26, 1997
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ADMINISTRATIVE OVERVIEW

Cyprus Plateau Mining Corporation
Willow Creek Mine
ACT/007/038
Carbon County, Utah

June 26, 1997

PROPOSAL

Cyprus Plateau Mining Corporation submitted an application for the proposed Willow Creek Mine, an underground mine complex, on May 3, 1995. This permit area encompasses a block of approximately 14,750 acres consisting of federal lands (BLM), county lands, and private lands. All of the permit area except federal coal lease UTU-73975 was approved on April 23, 1996. Federal Coal Lease UTU-73975 was obtained by Cyprus Plateau Mining Corporation on December 18, 1996. The R2P2 recommendation for approval was signed on June 2, 1997 by the Bureau of Land Management.

BACKGROUND

The Willow Creek Mine area is located approximately 10 miles north of the town of Price, Utah in Carbon County, with the mine surface facilities located adjacent to and north of Willow Creek and State Highway 191 in Willow Creek Canyon approximately one mile northeast of the junction of Highway 191 with U.S. Highway 6 and 50. The Willow Creek Mine permit area covers an area of approximately 23 sections extending north and south approximately 2.5 miles from the junction of the two highway and six miles to the east for a total of 14,750 acres.

This area is part of the Book Cliffs of Central Utah and is characterized by high plateaus to the north; steep narrow ridgelines cut by deep erosional drainages in the permit and adjacent areas to the east, west, and south; and the relatively flat, dry semi-desert areas of the Colorado Plateau to the south of the town of Price. Within the permit area, topographic relief ranges from 6200 feet, near the confluence of Willow Creek with the Price River, to over 8,600 feet along the ridgelines to the southeast.

There has been mining in this area since the late 1800's. Following initial settlement of this area, further settlement and development of the area occurred fairly rapidly with the discovery of extensive coal reserves in the late 1870's and construction of the railroad in the late 1870's and early 1880's. Active underground mining operations continued from the 1870's through the 1940's, when coal demand

Page 2

Administrative Overview

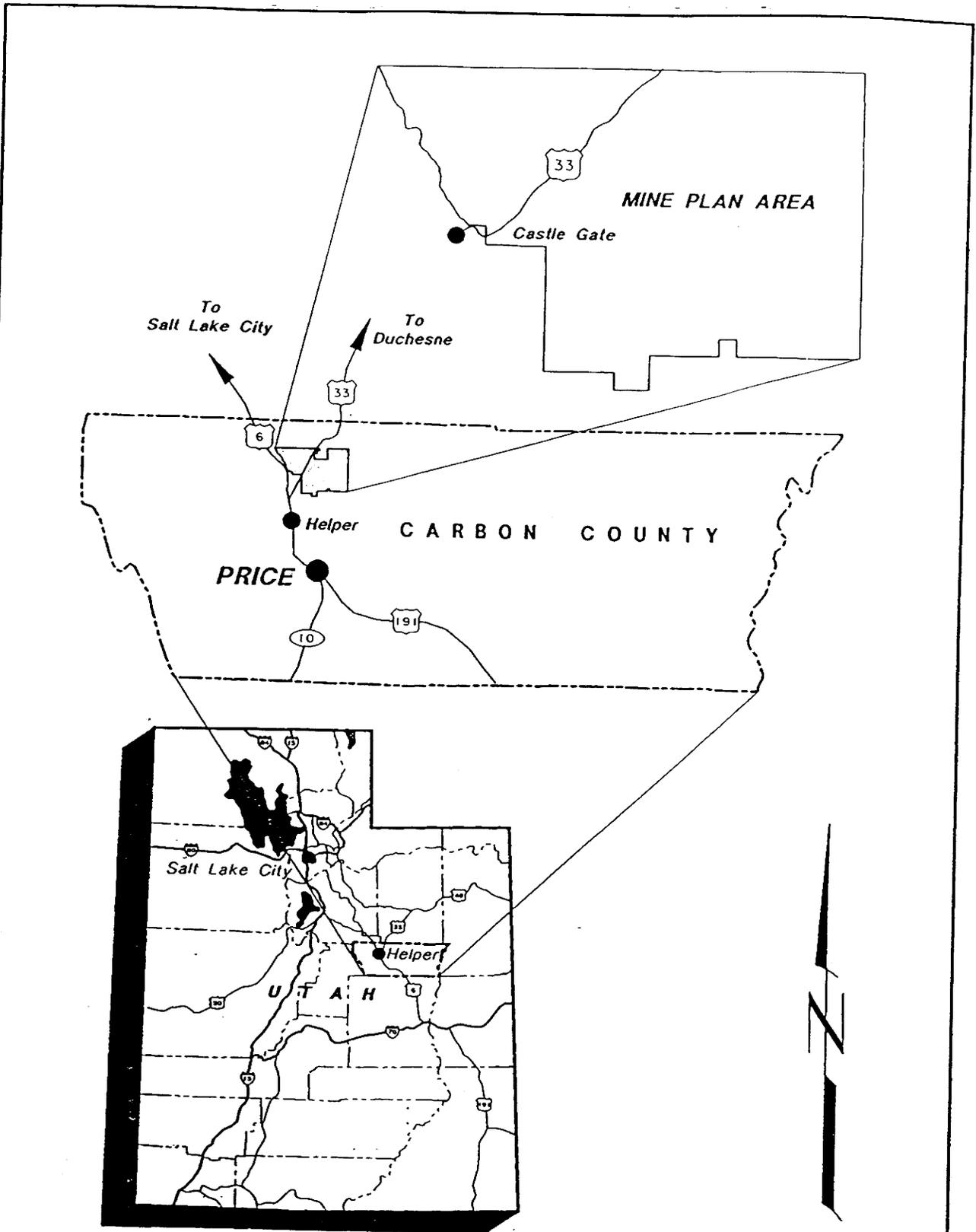
and production began to decline due to reduced postwar industrial production and the shift to diesel railroad engines. The Castle Gate Mines Nos. 1, 2, and 4, which were encompassed by the Willow Creek Mine permit boundary, were developed and operated from 1888 through 1972, when the last of the mines closed. Although extensive underground mine development and production occurred throughout the proposed permit area, associated surface disturbance was generally limited to mine portal and surface facility areas in the valley bottoms and on natural bench areas adjacent to drainages.

The underground mining operation will target recovery of remaining recoverable coal reserves contained in the "A", "C", "D", and "K" coal seams. This permit application includes mining of recoverable reserves in areas with less than approximately 2,500 feet of overburden cover. There are extensive reserves under areas with greater than 2,500 feet of overburden, however, recovery of these reserves is not included in this permit application.

Most of the initial and future mine development work will involve continuous underground methods using continuous miners and electric shuttle cars. The application plans to utilize high productivity longwall mining systems for actual coal production, with coal haulage from the mine using a high speed main conveyor fed by several face conveyors from each of the active development areas, continuous minor sections, or longwall panels. The mine is being designed for a nominal annual production rate of 5.0 millions tons of coal.

RECOMMENDATION

The Division, along with federal and state agencies, have reviewed and analyzed the permit application for the Willow Creek Mine. The Division approved mining to begin in the fee areas on April 23, 1996. This recommendation for approval conditions the permit for mining into the federal leases when the mining plan approval from the Secretary of the Interior is obtained. A surety bond in the amount of \$11,949,205 (year 2001 dollars) has been posted with United Pacific Insurance Company for this project.



Project No.: 500-5000	Design By: J. NETTLETON	Scale: NOT TO SCALE
File: PLATGLOC.DWG	Drawn By: K. CONRATH	Date: MARCH 1994

CE CYPRUS Plateau Mining

TerraMatrix
Engineering & Environmental Services
1475 Pine Grove Road, P.O. Box 774018
Stamwood Springs, Colorado 80477

FIGURE 1.0-1

GENERAL LOCATION MAP

PERMITTING CHRONOLOGY

Cyprus Plateau Mining Corporation
Willow Creek Mine
Carbon County, Utah

June 26, 1997

- May 3, 1995 Cyprus Plateau Mining corporation submits the permit application package for the proposed Willow Creek Mine.
- May 11, 1995 Public Hearing held about proposal to conduct mining operations within 100 feet of the outside right-of-way line of Highway 191 in Willow Creek Canyon. No comments were received and a finding was made on May 12, 1995.
- June 6
and June 27, 1995 The Division sent letters to the applicant Cyprus Plateau Mining Corporation, documenting that the application was not complete.
- June 8 and June 12,
August 8 and August
18 and September 12,
1995 Cyprus Plateau Mining Corporation responds to the administrative completeness concerns.
- September 1, 1995 Division responds to GRAMA request from the United Mine Workers of America.
- September 14, 1995 The application was determined complete. Published in the Sun Advocate September 21, 28 and October 5, and October 12, 1995.
- October 6, 1995 Cyprus Plateau transmits ten (10) sets of the permit application package.
- October 17, 1995 Division request for agencies to review.
- November 6, 1995 Technical review of the Willow Creek Mine permit application sent to Cyprus Plateau Mining Corporation with a response date of December 22, 1995.

- November 9, 1995 DWR submits concerns about the proposed PAP.
- November 10, 1995 United Mine Workers of America object to the proposed Willow Creek Mine and request an Informal Conference.
- November 13, 1995 Partnering session with Cyprus Plateau Mining corporation, Centennial Development Corporation, Wasatch Electric, CEntry and the Division.
- November 15, 1996 Division of Water Rights submits concerns to the Division about the PAP.
- November 21, 1995 Director notified the United Mine Workers of America that the information conference is scheduled for December 6, 1995 in Price, Utah.
- December 6, 1995 Informal Conference held in Price, Utah.
- December 12, 1995 Director, James Carter, extends supplementing the record of the informal conference of the United Mine Workers of America until the close of business on December 22, 1995.
- December 20, 1995 Director, James Carter, extends time to supplement the record from December 22 to December 29, 1995.
- January 23, 1996 Division staff visited proposed mine site.
- February 5, 1996 OSM-WRCC notifies the applicant that prior to conducting any operation to extract Federal leased coal, a Mining Plan would need to be approved by the Assistant Secretary, Land and Minerals management in the U.S. Department of Interior.
- February 9, 1996 The Division received responses to the November 6, 1995 technical review.
- February 12, 1996 Division send OSM-WRCC copies of the environmental assessments for the federal coal leases.

February 26, 1996	Updated PAP information is transmitted to other agencies.
March 18, 1996	Partnering meeting at the Division.
April 2, 1996	Division receives Willow Creek Mine cost estimate.
April 4, 1996	Division transmits Technical Analysis review to Cyprus Plateau Mining Corporation.
April 9, 1996	Cyprus Plateau Mining corporation submitted a response to the March 28, 1996 Division Technical Adequacy Document.
April 12, 1996	Request for Consultation from Division to State History
April 16, 1996	Cyprus Plateau Mining Corporation faxed the Division copies of the Reclamation Agreement including the surety bond in the amount of \$11,949,205.
April 19, 1996	Army Corps Engineers issue 404 permit.
April 22, 1996	State Preservation Office sent conditional concurrence letter.
April 23, 1996	Division issues permit with three conditions. Mining can begin in the fee coal areas.
October 24, 1996	Notice is sent of proposed coal sale for the Willow Creek North Tract on December 18, 1996.
November 5, 1996	Environmental Assessment is completed for lease number UTU-73975 with a finding of no significant impact.
December 18, 1996	Cyprus Plateau Mining Corporation is the successful bidder of federal lease UTU-73975.
April 28, 1997	National Fish and Wildlife Foundation acknowledges receipt of \$511.00 for the Colorado River Fish Recovery Fund , effective April 8, 1997.

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Permitting Chronology
ACT/007/038
June 26, 1997

June 2, 1997

Resource Recovery and Protection Plan is approved by the Bureau of Land Management.

June 26, 1997

Division issues permit with the condition that mining into the federal leases is conditioned upon obtaining mining plan approval by the Secretary.

MINE PLAN INFORMATION

Mine Name: Willow Creek Mine State ID: ACT/007/038
Permittee: Cyprus Plateau Mining Corporation County: Carbon
Contact Person(s): Ben Grimes Telephone: (801) 636-2227
Position: Sr. Staff Project Engineer New/Existing: Both
Mining Method: Longwall

Fee Surface - Cyprus Western Coal Company (CWCC)

Township 12 South, Range 9 East, SLM

Section 35: E/2 east of the Price River *

Less and Except:

1. A tract in the NE/4 SE/4 containing 1.37 acres, more or less, described by metes and bounds; as conveyed to Castle Gate, a body politic, by Deed of Correction dated April 10, 1973, and recorded in Book 138 at page 156 of the official records of Carbon County;
2. A tract in the NW/4 NE/4 containing 5.25 acres, more or less, conveyed to The Utah Power and Light Company, as referenced and described by metes and bounds in Quitclaim Deed recorded on February 3, 1956, in Book 38 at page 158 of the official records of Carbon County;
3. A tract in the NW/4 NE/4 containing 2.61 acres, more or less, described by metes and bounds; as conveyed to the City of Price, a body politic, by Warranty Deed dated December 19, 1960, and recorded in Book 70 at page 416 of the official records of Carbon County.

Section 36: Lots 1 and 2 (E/2 NE/4); W/2 NE/4; SE/4; NW/4; SW/4 east of Price River *

Less and Except:

A tract in the SE/4 SW/4 containing 0.057 acres, more or less, described by metes and bounds; as conveyed to Castle Gate, a body politic, by Deed of Correction dated April 10, 1973, and recorded in Book 138 at page 156 of the official records of Carbon County.

Township 13 South, Range 9 East, SLM

Section 1: Lots 1 and 2 (N/2 NE/4); Lots 3 and 4 (N/2 NW/4) east of the Price River; SE/4 NE/4; E/2 SW/4 NE/4;

Less and Except:

1. A tract in Lot 3 containing 1.43 acres total , more or less, and a tract in the NE/4 SW/4 containing 9.48 acres, more or less, described by metes and bounds; as conveyed to The Utah Power and Light Company by Special Warranty Deed dated July 10, 1986, and recorded in Book 262 at page 309 of the official records of Carbon County;
2. A tract in the E/2 SW/4 containing 2.88 acres, more or less, as conveyed to The Utah Power and Light Company; as referenced and described by metes and bounds in Quitclaim Deed recorded on February 3, 1956, on Book 38 at page 158 of the official records of Carbon County;
3. A tract in Lot 3 containing 1.02 acres, more or less, described by metes and bounds; as conveyed to The Utah Power and Light Company by Quitclaim Deed dated May 28, 1953, and recorded in Book 20 at page 492 of the official records of Carbon County;
4. A roadway 30 feet wide in the NW/4 described by metes and bounds; as conveyed to Castle Gate Town, a municipal corporation, by Quitclaim Deed dated September 26, 1969, and recorded in Book 122 at page 400 of the official records of Carbon County.

Township 12 South, Range 10 East, SLM

Section 29: S/2 NE/4; W/2 SE/4; E/2 SW/4; SW/4 SW/4

Section 30: SE/4 SE/4

Section 31: All

Less and Except:

1. A tract in Section 31: SW/4 SW/4, and also in T. 13 S., R. 10 E., Section 6: Lot 4, containing 6.496 acres, more or less, as described by metes and bounds; as conveyed to Carbon County by Quitclaim Deed dated September 18, 1990, and recorded in Book 300 at page 134 of the official records of Carbon County (Castle Gate Cemetery).
2. A tract in Section 31: SE/4 SW/4, containing 0.92 acres, more or less, as described by metes and bounds; as conveyed to PacifiCorp by Quitclaim Deed dated November 21, 1995, and recorded in Book 364 at page 756 of the official records of Carbon County.

Township 13 South, Range 10 East, SLM

Section 2: All

Section 4: Lots 1 and 2 (N/2 NE/4); S/2 NE/4; N/2 SE/4; SW/4 SE/4; S/2 SW/4

Section 5: All

Section 6: Lots 1, 2, 3, 4 (N/2 N/2); Lot 5 (SW/4 NW/4); S/2 NE/4; SE/4;
SE/4 NW/4
Section 8: Lot 1 (NE/NE/4); SE/4 NE/4; NE/4 SE/4; S/2 S/2
Section 9: E/2; SW/4; N/2 NW/4; SE/4 NW/4
Section 10: SE/4; E/2 SW/4
Section 11: SW/4
Section 17: NE/4; N/2 NW/4
Section 18: N/2 NE/4

* Subject to the surface rights only of AMAX Coal Company, as successor to Castle Gate Coal Company, under the Preparation Plant Facility Lease between Blackhawk Coal Company, Lessor, and Castle Gate Coal Company, Lessee, dated May 30, 1986, and affecting:

Township 12 South, Range 9 East, SLM

Section 35: SE/4 NE/4; E/2 SE/4
Section 36: SW/4; SW/4 NE/4; NW/4 SE/4; SE/4 NW/4

Township 13 South, Range 9 East, SLM

Section 1: Lots 3 and 4 (N/2 NW/4) excluding Utah Power and Light Company coal stockpile.

Fee Coal - CWCC

Township 12 South, Range 9 East, SLM

Section 35: E/2 East of the Price River

Less and Except:

A tract in the NW/4 NE/4 containing 2.61 acres, more or less, described by metes and bounds; as conveyed to the City of Price, a body politic, by Warranty Deed dated December 19, 1960, and recorded in Book 70 at page 416 of the official records of Carbon County.

Section 36: SW/4 SW/4 east of Price River; E/2 NW/4; NW/4 NW/4; NW/4 SW/4; S/2 SW/4

Township 13 South, Range 9 East, SLM

Section 1: Lots 1 and 2 (N/2 NE/4); Lots 3 and 4 (N/2 NW/4) east of the Price River; SE/4 NE/4; E/2 SW/4 NE/4;

Less and Except:

1. A tract in Lot 3 containing 1.02 acres, more or less, described by metes and bounds; as conveyed to The Utah Power and Light Company by

Quitclaim Deed dated May 28, 1953, and recorded in Book 20 at page 492 of the official records of Carbon County;

2. A roadway 30 feet wide in the NW/4 described by metes and bounds; as conveyed to Castle Gate Town, a municipal corporation, by Quitclaim Deed dated September 26, 1969, and recorded in Book 122 at page 400 of the official records of Carbon County.

Township 12 South, Range 10 East, SLM

Section 31: All

Township 13 South, Range 10 East, SLM

Section 2: All

Section 4: S/2 S/2

Section 5: Lots 1, 2, 3, and 4 (N/2 N/2)

Section 6: Lots 1, 2, 3, and 4 (N/2 N/2); Lot 5 (SW/4 NW/4); S/2 SE/4; SE/4 NW/4

Section 8: S/2 S/2

Section 9: E/2; SW/4; N/2 NW/4; SE/4 NW/4

Section 10: SE/4; E/2 SW/4

Section 11: SW/4

Section 17: NE/4; N/2 NW/4

Section 18: N/2 NE/4

CWCC Surface and Leased Coal

Federal Coal Leases:

1. Federal Consolidated Coal Lease No. SL-048442-050115 dated November 2, 1930; covering the following lands:

Township 13 South, Range 10 East, SLM

Section 1: SW/4

Section 3: S/2 N/2; S/2

Section 4: Lots 1, 2, 3, and 4 (N/2 N/2); S/2 N/2; N/2 S/2

Section 10: N/2; NW/4 SW/4

Section 11: E/2; NW/4

Less and Except:

A Partial Assignment dated September 17, 1991, effective May 1, 1992, to AMCA Coal Leasing, Inc., in:

Township 13 South, Range 10 East, SLM

Section 1: SW/4

2. Federal Modified Coal Lease No. SL-046652 dated December 1, 1962, effective August 3, 1921, as amended effective September 23, 1964, by a partial transfer to the State of Utah; covering the following lands:

Township 12 South, Range 10 East, SLM

Section 33: S/2
Section 34: S/2

Township 13 South, Range 10 East, SLM

Section 3: Lots 1, 2, 3, and 4 (N/2 N/2)
containing 802.36 acres, more or less

3. Federal Coal Lease No. U-0146345 dated November 1, 1965; covering the following lands:

Township 12 South, Range 10 East, SLM

Section 33: N/2
Section 34: NW/4 NE/4; S/2 NE/4; NW/4
Section 35: NE/4; S/2 NW/4; S/2
containing 1,160.00 acres, more or less

4. Federal Coal Lease No. U-0148779 dated August 1, 1966; covering the following lands:

Township 12 South, Range 10 East, SLM

Section 26: N/2; N/2 S/2; SE/4 SW/4; S/2 SE/4
Section 27: All
containing 1,240.00 acres, more or less

5. Federal Coal Lease No. UTU-73975 dated December 18, 1997; covering the following lands:

Township 12 South, Range 9 East, SLM

Section 25: Lots 1-4, W/2E2, W2;
Section 26: E/2E2.

Township 12 South, Range 10 East, SLM

Section 28: E/2, E/2W/2, SW/4NW/4, W/2SW/4;
Section 29: N/2N/2, S/2NW/4, NW/4SW/4, E/2SE/4;
Section 30: Lots 1-4, NE/4, E/2W/2, N/2SE/4, SW/4SE/4.
containing 2,299.4 acres more or less

State Coal Leases:

1. State of Utah Coal Lease No. ML-1892 dated June 5, 1947, as amended effective January 1, 1988; covering the following lands:

Township 12 South, Range 9 East, SLM

Section 36: Lots 1 and 2 (E/2 NE/4); W/2 NE/4; SE/4; NE/4 SW/4; SW/4 NW/4 containing 389.84 acres, more or less

2. State of Utah Modified Coal Lease No. SL-046652-ST dated December 1, 1962, effective August 3, 1921; as transferred from the United States of America to the State of Utah under the Dawson Act of April 22, 1954, (68 Stat 7) on April 7, 1965, effective September 23, 1964, (Patent No. 43-65-0072); as amended September 19, 1968; covering the following lands:

Township 12 South, Range 10 East, SLM

Section 32: All
containing 640.00 acres, more or less

County Coal Lease:

1. Carbon County, Utah, Consolidated Coal Lease dated April 22, 1985; covering the following lands:

Township 12 South, Range 10 East, SLM

Section 28: NW/4 NW/4
Section 29: S/2 NE/4; W/2 SE/4; E/2 SW/4; SW/4 SW/4
Section 30: SE/4 SE/4

Township 13 South, Range 10 East, SLM

Section 5: S/2; S/2 N/2
Section 6: S/2 NE/4; N/2 SE/4
Section 8: Lot 1 (NE/4 NE/4); SE/4 NE/4; NE/4 SE/4
containing 1,119.97 acres, more or less

Fee Surface - AMAX Coal Company/AMAX Land Company

Crandall Canyon Facility Surface Area:

That part of the surface rights in the following described land located in Carbon County, Utah, conveyed by Franklin Real Estate Company to Blackhawk Coal Company by Quitclaim Deed dated November 3, 1981, of record in Record Book 219, pages 691-692, in the Office of the Recorder of Carbon County, Utah, to

wit:

Township 12 South, Range 9 East, SLBM

- Section 22: SW/4 SE/4; SE/4 SW/4 - excluding public highways and the D&RGW right-of-way
Section 27: S/2 NW/4; NE/4 NW/4; NW/4 SW/4 - excluding public highways and the D&RGW right-of-way
Section 28: S/2

Preparation Plant Facility Surface Area:

That part of the surface rights in the following described land located in Carbon County, Utah, conveyed by Franklin Real Estate Company to Blackhawk Company by Quitclaim Deed dated November 3, 1981, of record in Record Book 219, page 690 in the Office of the Recorder of Carbon County, Utah, to wit:

Township 12 South, Range 9 East, SLBM

- Section 36: NE/4 SW/4; SW/4 NE/4; NW/4 SE/4

And, also, that part of the surface rights in the following described land located in Carbon County, Utah, conveyed by Franklin Real Estate Company to Blackhawk Coal Company by Warranty Deed dated November 3, 1981, of record in Record Book 215, pages 474-487, to wit:

Township 12 South, Range 9 East, SLBM

- Section 35: SE/4 NE/4; E/2 SE/4
Section 36: SE/4 NW/4; W/2 SW/4; SE/4 SW/4

Township 13 South, Range 9 East, SLBM

- Section 1: N/2 NW/4 - excluding Utah Power and Light coal stockpile

All of the Surface Rights described in Parts I, II, and III above, including without limitation, the "Preparation Plant Facility Area" and the "Crandall Canyon Facility Surface Area" are SUBJECT TO all liens, mortgages, encumbrances, covenants, restrictions, prior rights, claims, reservations, leases, royalties, easements, agreements and all matters legally existing, and all rights or claims of any kind affecting such property disclosed in those Warranty Deeds and Quitclaim Deeds forming a part of this Exhibit A, and in Chicago Title Insurance Company Commitment No. 1268, dated May 22, 1975, and in South Eastern Utah Title Company Preliminary Title Report No. 6408-C, dated May 15, 1975, and all exceptions set forth therein.

Fee Surface - Cyprus Western Coal Company:

Surface rights only in the following described lands located in Carbon County Utah conveyed by Warranty Deed dated June 29, 1994 from AMCA Coal Leasing Company, Grantor, to Cyprus Western Coal Company, Grantee, to wit:

Township 13 South, Range 10 East, SLM

Section 7: Lots 8, 9, 12, and 13
containing 160.54 acres, more or less

Note: The Warranty Deed was provided to the county for recordation on July 26, 1995.

Fee Coal - Cyprus Western Coal Company:

Coal rights only in the following described lands located in Carbon County, Utah conveyed by Warranty Deed dated June 29, 1994 from AMCA Coal Leasing Company, Grantor, to Cyprus Western Coal Company, Grantee, to wit:

Township 13 South, Range 10 East, SLM

Section 7: Lots 1, 2, 6-9, 12, and 13
Section 8: SW/4 NW/4; NW/4 SW/4
containing 401.77 acres, more or less

Note: The Warranty Deed was provided to the county for recordation on July 26, 1995.

Carbon County Coal - Cyprus Western Coal Company:

All those certain rights in the following described lands located in Carbon County, Utah and associated with Coal Mining Lease dated April 6, 1971 between Carbon County, a body corporate and politic of the State of Utah, Lessor, and AMCA Coal Leasing, Inc., Lessee; as extended by Notice of Extension of Coal Mining Lease dated December 28, 1992 from AMCA Coal Leasing, Inc., to the Carbon County Commission; and as assigned by Assignment and Assumption of Carbon County, Utah Coal Mining Lease dated effective June 29, 1994 from AMCA Coal Leasing, Inc., Assignor, to Cyprus Western Coal Company, Assignee, which assignment was consented to by the Carbon County Board of Commissioners by Consent to Assignment dated November 16, 1994, to wit:

Township 13 South, Range 10 East, SLM

Section 8: Lots 2 and 3; SW/4 NE/4, NW/4 SE/4; SE/4 NW/4; NE/4 SW/4
containing 239.74 acres, more or less.

Other Leases (identify): None
Description(s): _____

Ownership Data:

<u>Surface Resources (Acres):</u>	<u>Proposed Permit Area</u>	<u>Total Life of Mine Area</u>
Federal	_____	5088
State	_____	_____
Private	_____	9582
Other - County	_____	80
TOTAL	_____	14750

Coal Ownership (acres):

<u>Surface Resources (Acres):</u>	<u>Proposed Permit Area</u>	<u>Total Life of Mine Area</u>
Federal	_____	8347
State	_____	430
Private	_____	4613
Other - County	_____	1360
TOTAL	_____	14750

Coal Resource Data (Millions Tons)

	<u>Total Reserves (Tons)</u>	<u>Total Recoverable Reserves (Tons)</u>
Federal	318,050,412	79,150,000
State	10,769,609	500,000
Private	42,712,182	10,060,000
Other - County	30,774,168	5,680,000
TOTAL (Life of Mine)	402,306,371	95,390,000
Total Percent Recoverable	_____	24%

Recoverable Reserve Data

	<u>Name</u>	<u>Thickness</u>	<u>Map</u>	<u>Depth</u>
Seam	A	6' - 14'	_____	250' - 3000'
Seam	D	5' - 24'	_____	250' - 3000'
Seam	K	6' - 14'	_____	250' - 3000'
Seam	C	6' - 10'	_____	250' - 3000'
Seam	_____	_____	_____	_____

Mine Life: 1996 - 2016
Average Annual Production: 5,000,000 Percent Recovery: 24%
Date Projected Annual Rate Reached: 1999 - 2010
Date Production Begins: 1996 Date Production Ends: 2016
Reserves Recoverable By: (1) Surface Mining: None
(2) Underground Mining: 95,390,000
Reserves Lost Through Management Decisions: Unknown
Coal Market: Domestic and Export

FINDINGS

Cyprus Plateau Mining Corporation
Willow Creek Mine
ACT/007/038
Carbon County, Utah

June 26, 1997

1. The permit application for the proposed Willow Creek Mine is accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the approved Utah State Program (the "Act") are in compliance. Refer to April 22, 1996 Technical Analysis (TA). This TA includes all of the federal leases. (R645-300-133.100)
2. An 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 Division and no significant impacts were identified. The Mining and Reclamation Plan (MRP) proposed under the revised application has been designed to prevent damage to the hydrologic balance in the permit area and in associated off-site areas. See CHIA dated April 1996 (R645-300-133.400 and UCA 40-10-11 (2)(c)).
3. The proposed lands to be included within the permit area are:
 - a. Not included within an area designated unsuitable for underground coal mining operation (R645-300-133.220);
 - b. not within an area under study for designated land unsuitable for underground coal mining operations (R645-300-133.210);
 - c. not on any lands subject to the prohibitions or limitation of 30 CFR 761.11 {a} (national parks, etc), 761.11{f} (public buildings, etc.) and 761.11 {g} (cemeteries);
 - d. within 100 feet of a public road (R645-300-133.220) (A public hearing was held on May 11, 1995); and
 - e. not within 300 feet of any occupied dwelling (R645-300-133.220).
4. The operation would not affect the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats as determined under the Endangered Species Act of 1973 (16 USC 1531 et seq.) See TA dated April 22, 1996 (R645-300-133.500)

5. The Division's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800). See permit condition and letter from State Historic Preservation Office, dated April 22, 1996. (R645-300-133.600)
6. The applicant has the legal right to enter and conduct mining activities in the Willow Creek Mine area. (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 Cyprus Plateau Mining Corporation 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 demonstrated pattern of wilful violations of the Act of such nature, duration, and with such resulting irreparable damage to the damage to the environment as to indicate an intent not to comply with the provisions of the Act. A 510 (c) report and memo to file on June 26, 1997, (R645-300-133.730)
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.
9. The applicant has posted a surety bond for the Willow Creek Mine by United Pacific Surety Company (#U2644-518) in the amount of \$11,949,205 (Year 2001dollars). (R645-300-134)
10. No lands designated as prime farmlands or alluvial valley floors occur on the permit area. See TA (R645-302-313.100 and 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 Division.
12. The Division has made all specific approvals required by the Act, the Cooperative Agreement, and the Federal Lands Program. (See Stipulation for Mining Plan Approval.)
13. All procedures for public participation required by the Act, and the approved Utah State Program are in compliance. See Affidavit of Publication, dated October 12, 1995, which includes all of the federal leases. (R645-300-120)

Page 3
Findings
ACT/007/038
June 26, 1997

14. Existing structures used in conjunction with this mining operation will be in compliance with the performance standards of R645-301 and R645-301. See TA (R645-300-133.720)

Dawn R. Haddock
Permit Supervisor

Traci A. Gutzig
Permit Supervisor

LPA for Mary Ann Wray
Associate Director, Mining

James S. Brayton for JWC
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
(801) 538-5340

This permit, ACT/007/038, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (Division) to:

Cyprus Plateau Mining Corporation
P.O. Box PMC
Price, Utah 84501
(801-637-2875)

for the Willow Creek Mine. A Surety Bond is filed with the Division in the amount of \$11,949,205 payable to the State of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSM). Underground coal mining will be conducted in Federal Leases: SL-048442-050115, SL-046652, U-0148779, U-0146345, UTU-73975, and U-0148779; State Leases: ML-1892 and SL-046652-ST (transferred from the federal to the state on April 22, 1954); a county lease and fee coal.

Sec. 1 STATUTES AND 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 underground coal mining activities on the following described lands within the permit area at the Willow Creek Mine, situated in the state of Utah, Carbon County. The area to be mined is contained on the USGS 7.5-minute quadrangle maps (Helper, Kyune, Standardville, Matts Summit.) The areas contained in the permit area, approximately 14,670 acres are:

Township 12 South, Range 9 East

Section 22: Portions of SW/4 SE/4; SE/4 SW/4;
Section 25: All;
Section 26: *East of the Price River;*
Section 27: *East of the Price River;*
Portions of S/2 NW/4; NE/4 NW/4; NW/4 SW/4;
Section 28: Portions of S/2;
Section 35: Portions of SE/4 NE/4 and E/2 SE/4 west of the Price River
E/2 east of the Price River;

Less and Except:

A tract in the NW/4 NE/4 containing 2.61 acres, more or less, described by metes and bounds; as conveyed to the City of Price, a body politic, by Warranty Deed dated December 19, 1960, and recorded in Book 70 at page 416 of the official records of Carbon County; and
Section 36: All east of the Price River.

Township 13 South, Range 9 East

Section 1: Lots 1, 2, 3 and 4 (N/2 N/2) east of the Price River; SE/4 NE/4;
E/2 SW/4 NE/4;

Less and Except:

1. The Utah Power and Light Company coal stockpile.
2. A tract in Lot 3 containing 1.43 acres total, more or less, and a tract in the NE/4 SW/4 containing 9.48 acres, more or less, described by metes and bounds; as conveyed to The Utah Power and Light Company by Special Warranty Deed dated July 10, 1986, and recorded in Book 262 at page 309 of the official records of Carbon County;
3. A tract in Lot 3 containing 1.02 acres, more or less, described by metes and bounds; as conveyed to The Utah Power and Light Company by Quitclaim Deed dated May 28, 1953, and recorded in Book 20 at page 492 of the official records of Carbon County;
4. A roadway 30 feet wide in the NW/4 described by metes and bounds; as conveyed to Castle Gate Town, a municipal corporation, by Quitclaim Deed dated September 26, 1969, and recorded in Book 122 at page 400 of the official records of Carbon County.

Township 12 South, Range 10 East

Section 26: N/2; SE/4; N/2 SW/4; SE/4 SW/4;
Section 27: All;
Section 28: All;
Section 29: All;
Section 30: All;
Section 31: All;
Section 32: All;
Section 33: All;
Section 34: S/2; NW/4; S/2 NE/4; NW/4 NE/4; and
Section 35: E/2; SW/4; S/2 NW/4.

Township 13 South, Range 10 East

Section 2: All;
Section 3: All;
Section 4: All;
Section 5: All;
Section 6: Lots 1, 2, 3, 4 (N/2 N/2); Lot 5 (SW/4 NW/4); SE/4 NW/4; S/2 NE/4; SE/4;
Section 7: Lots 1, 2, 6-9, 12, and 13 (E/2);
Section 8: Lot 1, 2 and 3 (N/2 NE/4 and NE/4 NW/4); S/2 N/2; S/2;
Section 9: E/2; SW/4; E/2 NW/4; NW/4 NW/4;
Section 10: E/2; NW/4; E/2 SW/4; NW/4 SW/4;
Section 11: All;
Section 17: NE/4; N/2 NW/4; and
Section 18: N/2 NE/4.

This legal description is for the permit area of the Willow Creek Mine. The permittee is authorized to conduct underground coal mining activities and related surface activities on the foregoing described property subject to the conditions of all 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 April 24, 2001.
- Sec. 5 ASSIGNMENT OF PERMIT RIGHTS** - The permit rights may not be transferred, assigned or sold without the approval of the Director, Division. 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 underground coal mining activities 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.
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- 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 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. The Division, after coordination with OSM, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by Division within the time frame specified by 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: James P. B. [Signature] for J.W. Carter

Date: 6/27/97

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. Cyprus Plateau Mining Corporation (CPMC) is not authorized to conduct mining operations within the permit area on lands under federal jurisdiction until federal mine approval has been granted by the Secretary.

FEDERAL

Permit Number ACT/007/038

June 26, 1997

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
(801) 538-5340

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THE STATE OF UTAH

By: Lawrence P. Baepfer for J. W. Carter

Date: 6/27-97

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. Cyprus Plateau Mining Corporation (CPMC) is not authorized to conduct mining operations within the permit area on lands under federal jurisdiction until federal mine approval has been granted by the Secretary.

LETTERS OF CONCURRENCE

Moab District
Price River/San Rafael Resource Area
125 South 600 West
P.O. Box 7004
Price, Utah 84501

3425
UTU-73975
(UT-066)

Memorandum

NOV - 5 1996

To: State Director, Utah (UT-923)
From: Area Manager
Subject: Coal Lease Application UTU-73975, Willow Creek North Tract, Cyprus Plateau Mining Corporation

*ACT/007/025 #3
Copy P.M.S.
Jason*

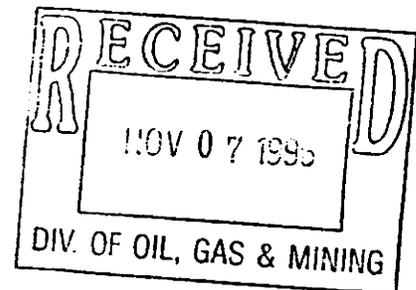
Attached is a copy of the completed environmental assessment (EA) for the subject coal lease tract, along with the signed decision record and finding of no significant impact (DR/FONSI). Please note an additional lease stipulation was recommended. Along with the DR/FONSI, we have determined that leasing the tract would be in conformance with the current land use plan. Also, please note that the correct lease number is UTU-73975, and any previous or current reference to any other lease number in any documents is incorrect.

If you have any questions, please contact Stephen Falk of my staff at 636-3600.

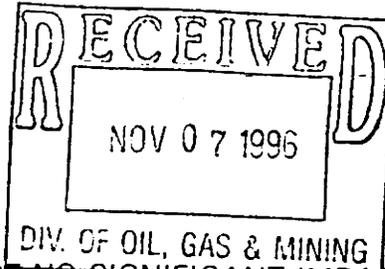
MARK E. BAILEY

Attachment
EA

cc: Office of Surface Mining (w/attach.)
Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733
✓ Utah Division of Oil Gas and Mining (w/attach.)
1594 West North Temple, Suite 1210
Box 14801
Salt Lake City, Utah 84114-5801



SFalk:ks:11/4/96
willoweacovr.mem



3425
UTU-73975
UT-066

DECISION RECORD/FINDING OF NO SIGNIFICANT IMPACT

EA Log No.: UT-066-95-28

Project Name: Willow Creek North
Coal Lease Tract

EA Preparation Date: August 23, 1996

BLM Office: Price River Resource Area

County: Carbon

BLM Office Location: Price, Utah

Phone No.: (801) 636-3600

Applicant: Cyprus Plateau Mining Corp.

Phone No.: (801) 637-2875

Address: P. O. Drawer PMC
Price, Utah 84501

EA Preparer: TerraMatrix Inc.

Phone No.: (970) 879-6260

Address: P. O. Box 774018
Steamboat Springs, CO 80477

RECORD OF DECISION

Decision:

My decision is to recommend holding a lease sale of the Federal coal lease application with the existing standard lease stipulations plus on additional stipulation listed below. The authority for the lease sale is under the Mineral Leasing Act of 1920, as amended.

Rationale:

1. The action is not adverse to local, state or Federal land use plans for the area.
2. The proposed action is in conformance with the Price River Planning Area Management Framework Plan.
3. The proposed action would not cause any significant environmental impacts.

4. The proposed lease tract would provide access to significant coal reserves adjacent to existing Federal coal leases where mining applications are pending and would avoid potential coal bypass.

Finding of No Significant Impact: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts are not expected to be significant and an environmental impact statement is not required.

Mark E. Bailey
Area Manager

28 Oct 96
Date

ADDITIONAL REQUIRED LEASE STIPULATION

Before any mine related subsidence occurs on the lease, the lessee shall conduct additional cultural resource inventories of the tract with consultation from the Bureau of Land Management.

ADDENDUM TO ENVIRONMENTAL ASSESSMENT

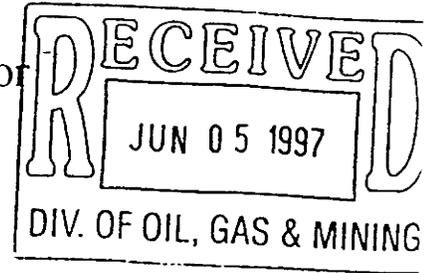
WILLOW CREEK NORTH COAL LEASE TRACT

In analyzing the impacts of mining to historic and cultural resources, it became clear that the full impacts were largely unknown. Cultural resource inventories of the lease tract area are notably sparse and deemed insufficient to make a determination of impacts. Also, it is unknown the extent of mine subsidence on this new tract, as former operations in the area observed little subsidence from mining but comprehensive monitoring was not done. Mitigating this deficiency in data could be accomplished by additional inventories of the lease tract area. It is recommended to add a stipulation to the lease terms to require additional cultural inventories before mining subsidence occurs.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
Price River/San Rafael Resource Area
125 South 600 West
Price, Utah 84501



3482
UTU-73975
(UT-066)
JUN - 2 1997

Memorandum

To: Senior Project Manager Utah, Western Regional Coordinating Center, Office of Surface Mining, 1999 Broadway, Suite 3320, Denver, Colorado 80202-5733

From: ~~Area~~ ^{Acting} Area Manager

Subject: Resource Recovery and Protection Plan (R2P2), Willow Creek Mine, Cyprus Plateau Mining Corporation

ACT/007/038 #3

The Bureau of Land Management has received and reviewed the subject R2P2 as part of the permit application package for adding Federal coal lease UTU-73975 to the approved Willow Creek Mine permit. This letter documents the Bureau's findings for the R2P2 as required by the laws governing the Federal coal lease.

Cyprus has recently permitted the Willow Creek Mine for a large area covered by an approved R2P2 in conjunction with the Blackhawk Logical Mining Unit (LMU). Having been the successful bidder for the new Willow Creek Tract Coal Lease, Cyprus has submitted an R2P2 that covers the whole of the permit area, including the new lease tract. Our recommendation on this R2P2 will supersede any previous approvals for this property.

Our review of the mining plan finds some of the following items. Cyprus plans to mine all areas of minable coal or has justified areas of no mining. The property is complex, with multiple seams, geologic constraints, old mine works, etc., which were fully addressed in the plan. The area in the northeast portion has potential mining, but is speculative based on the depth of mining (+2500 feet). Also, some of areas were not to be mined based on protection of cliffs. In both cases, these areas may or may not be mined based on limited information and the BLM will further address these issues as new information and mining experience is obtained.

The submitted R2P2 is 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 recommend the R2P2 be approved as part of the permit application. If you have any questions, please contact Stephen Falk or George Tetreault of my staff at (801) 636-3600.

MARK E. BAILEY

cc: UT-921, Utah State Office
Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801
Cyprus Plateau Mining Corporation
P. O. Drawer PMC
Price, Utah 84501

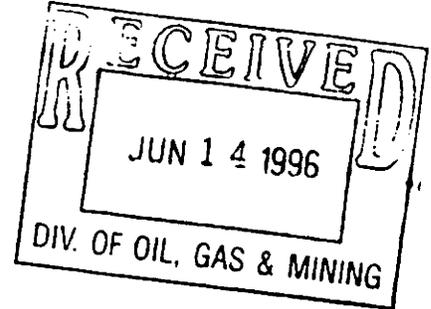


Department of Community & Economic Development
 Division of State History
 Utah State Historical Society

Michael O. Leavitt
 Governor
 Max J. Evans
 Director

300 Rio Grande
 Salt Lake City, Utah 84101-1182
 (801) 533-3500 • FAX: 533-3503 • TDD: 533-3502
 cehistory.ushs@email.state.ut.us

June 12, 1996



Ms. Pamela Grubaugh-Littig
 Permit Supervisor
 Division of Oil, Gas and Mining
 1594 West North Temple, Suite 1210P. O. Box 145801
 Salt Lake City, UT 84114-5801

RE: Data Recovery of Portions of Site 42Cb1000 for The Willow Creek Mine Project, Carbon County, Utah

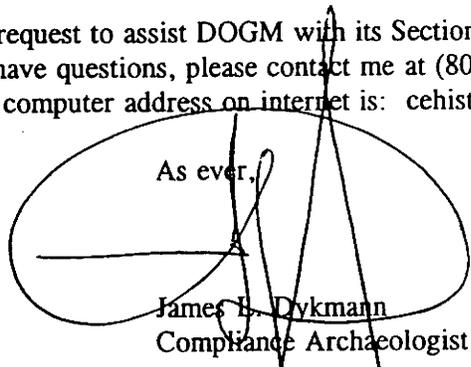
In Reply Please Refer to Case No. 95-0817

*Act 100/1038 #2
 Copy From: [unclear]*

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office received the above referenced report on June 10, 1996. I have not had a chance to finish a technical review of the report, however, I do recommend acceptance of the report for mitigation as **completion of mitigation for purposes of section UCA 9-8-404**. It looks good, and I wanted to discuss with you and Mike Polk the possibility of publishing this in some format, please give me a call.

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, or Barbara L. Murphy at (801) 533-3563. My computer address on internet is: cehistory.jdykman@email.state.ut.us

As ever,

 James E. Dykman
 Compliance Archaeologist

JLD:95-0817

- c: Sagebrush Archaeological Consultants, 3670 Quincy Avenue, Suite 203, Ogden, Utah 84403
- c: Cyprus Plateau Mining Corporation, P. O. Box PMC, Price, Utah 84501



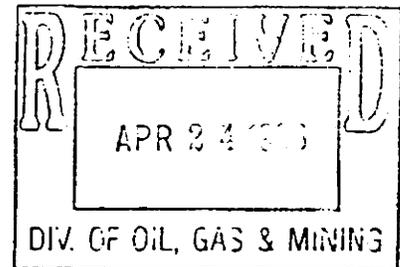
Department of Community & Economic Development
 Division of State History
 Utah State Historical Society



Michael O. Leavitt
 Governor
 Max J. Evans
 Director

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

April 22, 1996



Ms. 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: Willow Creek Mine Project/Castle Gate Mine Site (42CB1000)

ACT/007/038 # 2

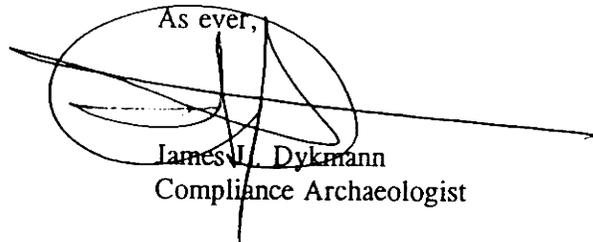
In Reply Please Refer to Case No. 95-0817

Dear Ms. Grubaugh-Littig:

The Utah State Historic Preservation Office received the above referenced report. After consideration of the Sagebrush report, the Utah Preservation Office makes the following recommendation to DOGM.

1. As a state mine case the consultation is being completed under UCA 9-8, and our office advises that it appears that five features of the 42CB 1000 cannot be avoided by the project, therefore there will be an Adverse Effect.
2. Our office therefore recommends that data recovery be carried out to mitigate the effects expected to occur to the five features on the mine property. For features 5, 10, 61, and 65, our office recommends that large format photographs be taken of the structures for state level documentation to the Historic American Engineering Record standards. Second, it is recommended that efforts be made to locate and reproduce historic photographs of the features. Third, for all of the features, including Feature 20, it is recommended that historic research be undertaken and a historical narrative be completed. Lastly it recommended that feature 20, a dugout structure of unknown origin or function be excavated to archaeological standards in order to establish its relationship to the Castle Gate Mine and mitigate effect.
3. If the mitigation standards are acceptable to all parties, then a letter of agreement or permit stipulation should be issued for the project as part of the permit. Our office will review the report when it is completed and make recommendations to DOGM as to the acceptability of the mitigation. No work on these features should be undertaken until the report has been accepted.
4. If the mine is later permitted under federal law, these state mitigation measures may or may not be acceptable to OSM, and additional mitigation and legal review for historic features would need to be carried out under federal law as outlined by 36CFR 800 and appropriate OSM regulation.

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, or Barbara L. Murphy at (801) 533-3563. My computer address on internet is: jdykman@email.state.ut.us

As ever,

James J. Dykmann
Compliance Archaeologist

JLD:95-0817

- c: Sagebrush Archaeological Consultants, 3670 Quincy Avenue, Suite 203, Ogden, Utah 84403
- c: Cyprus Plateau Mining Corporation, PO Box PMC, Price, Utah 84501



1120 CONNECTICUT AVENUE, NW
SUITE 900
WASHINGTON, D.C. 20036
(202) 857-0166 FAX (202) 857-0162

April 28, 1997

Cyprus Plateau Mining Corporation
Price, UT 84501

Dear Friend,

I am pleased to acknowledge receipt of your gift of \$511.00 to the National Fish and Wildlife Foundation (NFWF). Your contribution will match federal funds committed by NFWF to help support the Colorado River Fish Recovery Fund project.

For the past ten years NFWF has been matching private gifts to selected conservation projects with federal matching funds. During this period, NFWF has committed more than \$62 million in federal matching funds to 1,834 grants that leveraged \$236 million for on-the-ground conservation projects.

This letter will serve as your receipt for tax purposes. As required by federal law we note that this gift, received 04/08/97, is fully tax deductible, and that no goods or services were provided in consideration for your donation.

On behalf of everyone associated with NFWF, thank you for your generous support of this project.

Sincerely,

A handwritten signature in cursive script that reads "Whitney Tilt".

Whitney Tilt
Director, Conservation Programs



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

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

June 26, 1997

To: File

From: Pamela Grubaugh-Littig, Permit Supervisor *PGL*

Re: Compliance Review for Section 510 (c) Findings, Cyprus Plateau Mining Corporation, Willow Creek Mine, ACT/007/038, Folder #3, Carbon County, Utah

As of the writing of this memo, there are no NOVs or COs which are not corrected or in the process of being corrected. There are also no finalized Civil Penalties which are outstanding and overdue in the name of Cyprus Plateau Mining Corporation. However, there is a conditional issue recommendation from the applicant Violator System. Per a telephone conversation with Colelene Carlson, OSM-AVSO in Lexington, Kentucky, I verified that the "conditional issue" recommendation is for the Pittson Settlement Agreement and a pending hearing for Kyber Coal Company.

Cyprus Plateau Mining Corporation does not have a demonstrated pattern of willful violations, nor have they been subject to any bond forfeitures for any operation in the state of Utah.

Applicant Evaluation

Applicant Violator System

27-Jun-1997 10:51:07

Date : UT Permit No : ACT007038

Appl No : ACT007038

Applicant : 060102(CYPRUS PLATEAU MINING CORP)

Seqno : 0

SYSTEM RECOMMENDATION IS BASED ON ENTITY OFT

SYSTEM RECOMMENDATION : COND ISSUE 06/27/97
PREVIOUS SYSTEM RECOMMENDATION :

Records retrieved : 16

ST	PERMIT	RP ID	SEQ	VTTYPE	VIOLNO	VIOLDATE
KY	151643301U	075602	0	AUD	930243005	04/01/87
KY	8970316	100434	0	STCO	061083	10/15/96
KY	8985318	075602	0	AUD	930243005	10/01/91
KY	KY081	099819	0	CMIS	C97-083-068-002	03/17/97
VA	1200551	065862	0	FORF		07/13/93

RCM_MNT(F7) PERMIT/APPL(F8) REPORTS(F9)

PRV_SCR(F3) VIOL(F4) EVOFT(F5) VOFT(F6) CHOICES(F10)

■ avsdg

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Applicant Evaluation

Applicant Violator System

27-Jun-1997 10:51:07

Date : UT Permit No : ACT007038

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