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State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

May 21, 2007

Ken May, General Manager
Canyon Fuel Company, LLC
397 South 800 West
Salina, Utah 84654

Subject: Five-Year Permit Renewal, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, Task ID #2735, Outgoing File

Dear Mr. May:

Enclosed are two original renewed permanent program mining permits for the SUFCO Mine with the State's Decision Document. The SUFCO Mine permit is renewed. Please read the permit to be sure you understand the requirements of the permit and condition, have both copies signed by the company official with signatory authority and return one to the Division.

If you have any questions, please call Pamela Grubaugh-Littig at (801) 538-5286 or me.

Sincerely,

John R. Baza
Director

an
Enclosures
cc: Jim Fulton, OSM
O:\041002.CON\FINAL\PERMIT\2007Renewal\DD_RN07.doc

File In C 0410002 Outgoing
Date: 052/2007 Refer to:

☐ Confidential
☐ Shelf
☒ Expandable
For additional information

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

UTAH DIVISION OF OIL, GAS AND MINING
STATE DECISION DOCUMENT
For
PERMIT RENEWAL

Canyon Fuel Company, LLC
SUFCO Mine
C/041/0002
Sevier County, Utah

May 21, 2007

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File in:
☐ Confidential
☐ Shelf
☒ Expandable
Refer to Record No 0014 Date 05212007
In C/ 0410002 Outgoing
For additional information

ADMINISTRATIVE OVERVIEW

Canyon Fuel Company, LLC
SUFCO Mine
Five-Year Permit Renewal
C/041/0002
Sevier County, Utah

May 21, 2007

BACKGROUND

Canyon Fuel Company, LLC made application to the Division of Oil, Gas and Mining for a five-year permit renewal for the SUFCO Mine in a timely manner. This renewal encompasses the same permit area and disturbance as currently approved.

The SUFCO Mine, formerly known as the Convulsion Canyon Mine and operated by Southern Utah Fuel Company (SUFCO), is located approximately 30 miles east of Salina, Utah, with the surface facilities and access portals on U. S. Forest Service land in East Spring Canyon, within Section 12, Township 22 South, Range 4 East, Salt Lake Baseline and Meridian. The mine commenced operations in 1941, mining federally owned coal. The original mine plan was submitted to the U. S. Geological Survey (USGS) and the Utah Division of Oil, Gas and Mining (DOGM) in 1977. Additional information was submitted, and the mine plan was approved by DOGM pursuant to the Utah Mined Land Reclamation Act on September 14, 1977. The USGS approved the plan on February 3, 1978.

In October of 1979, SUFCO submitted additional information to comply with the regulation of the newly implemented Surface Mining Control and Reclamation Act of 1977. A joint OSM/DOGM review was conducted and the mine plan application was declared complete on July 18, 1983. A permanent program permit was issued to the Coastal States Energy Company on May 19, 1987, consisting of five federal leases and one fee lease for a total of 7,355 acres. The need for a waste rock disposal site was soon apparent. Coastal States applied for a disposal site located on a 40-acre tract of private land located approximately 6 miles west of the mine portals. This waste rock site was approved on August 26, 1988, bringing the revised permit area to a total of 7395 acres.

On July 3, 1989, application was made to add another federal lease known as the Quitchupah Lease to the permit area. Approval for the new lease was obtained and a revised permit was issued effective December 21, 1989. This new lease brought the total permit area to 17,301 acres.

On December 20, 1996 the permit was transferred to Canyon Fuel Company, LLC.

A lease modification to the Quitchupah lease (150 acres) was submitted in January 1999. This was approved as an incidental boundary change and added to the existing permit area on October 20, 1999.

Canyon Fuel Company, LLC acquired the Pines Tract lease through a lease by application (LBA) process. An EIS was completed for the Pines Tract lease on January 28, 1999 and the lease was issued to Canyon Fuel Company, LLC on September 1, 1999. The state issued a permit on June 22, 2000, and the mining plan approval was signed by the Secretary on July 25, 2000. The SITLA Muddy Tract was approved on January 20, 2006.

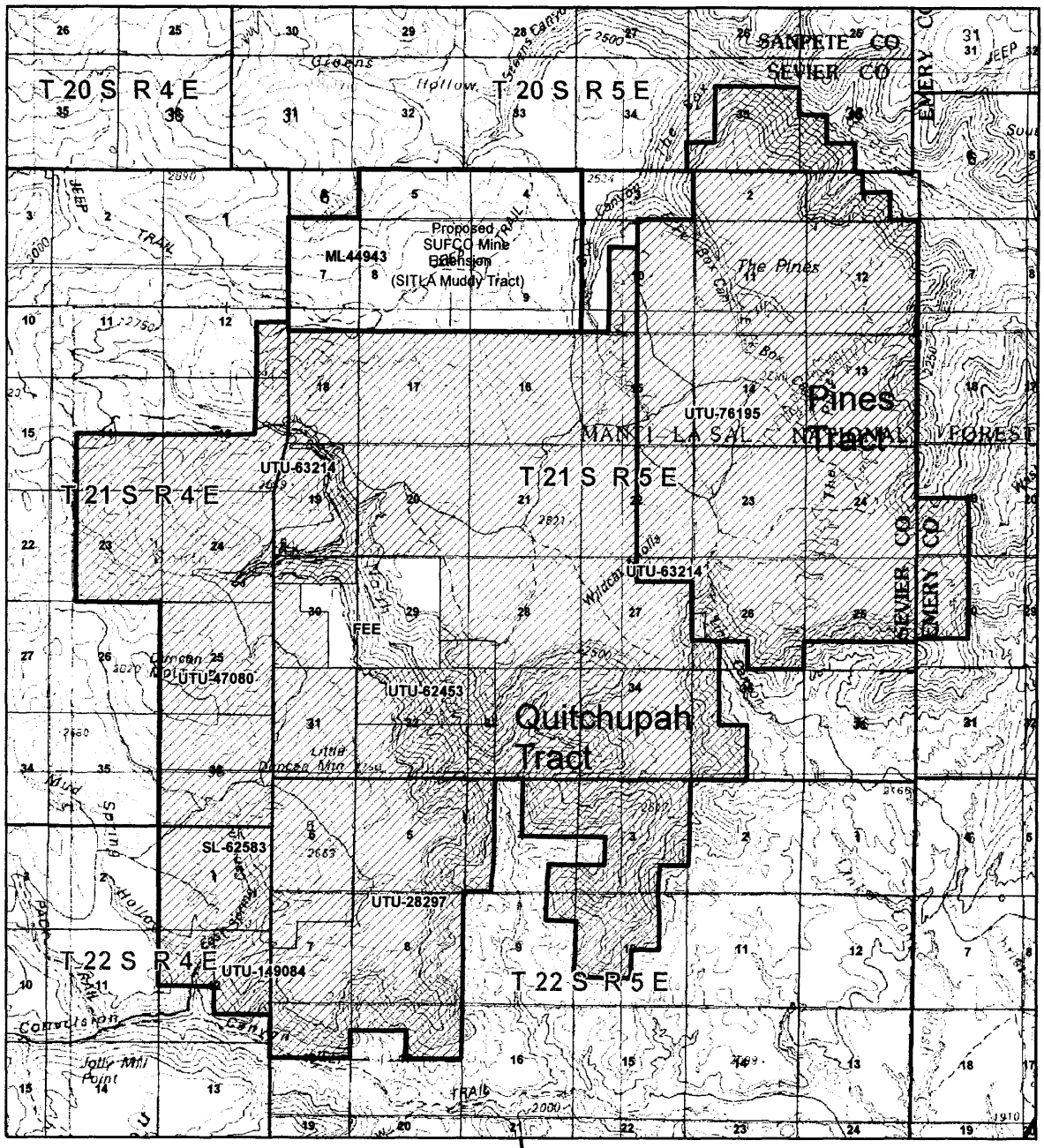
The total permit acreage is currently 26, 766.95 acres with a surface disturbance of 27.36 acres.

RECOMMENDATION

Canyon Fuel Company, LLC has demonstrated that mining of the SUFCO Mine can be done in conformance with the Surface Mining Control and Reclamation Act and the corresponding Utah Act and performance standards.

The public notice for this permit renewal was last published on March 6, 2007 in the Emery County Progress and March 7, 2007 in the Richfield Reaper. The public comment period ended on April 7, 2007 with no comments.

Approval for this permit renewal is recommended, with one condition: "Canyon Fuel Company, LLC must submit water quality data for the SUFCO Mine in an electronic format through the Electronic Data Input web site, http://linux1.ogm.utah.gov/cgi-bin/appx-ogm.cgi."



SUFCO Mine

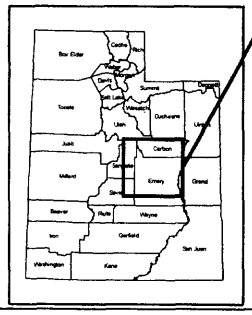
C0410002
Sevier County, Utah
January 2007

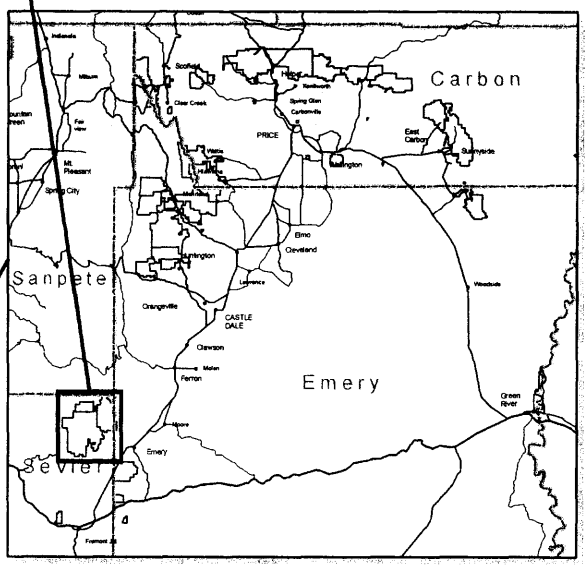
Township 20 South Range 5 East
Township 21 South Range 4, 5 & 6 East
Township 22 South Range 4 & 5 East
File: N:/gis/coal/coalareamaps/C0410002.pdf

Permit Area
Proposed Mine Plan Modification (If shown)
Federal Lease Areas

0 0.4 0.8 1.6 Miles
1:60,000

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





Locator Map

PERMITTING CHRONOLOGY

Canyon Fuel Company, LLC
SUFCO Mine
Five-Year Permit Renewal
C/041/0002
Sevier County, Utah

May 21, 2007

January 17, 2007	Canyon Fuel Company, LLC submits application for permit renewal.
January 24, 2007	Division notifies Canyon Fuel Company, LLC by telephone that the application is administratively complete.
January 29, 2007	Division notifies Canyon Fuel Company, LLC other federal, state, and local governmental agencies and water users that the application is determined administratively complete.
February 13, 20, 27, and March 6, 2007	Canyon Fuel Company, LLC published permit renewal in Emery County Progress for four consecutive weeks.
February 14, 21, 28, and March 7, 2007	Canyon Fuel Company, LLC published permit renewal in Richfield Reaper for four consecutive weeks.
April 7, 2007	End of public comment period. No comments received.
May 21, 2007	Division issues renewed permit with one condition.

PERMIT RENEWAL FINDINGS

Canyon Fuel Company, LLC
SUFCO Mine
Five-Year Permit Renewal
C/041/0002
Sevier County, Utah

May 21, 2007

1. The permit renewal term will not exceed the original permit term of five years (R645-303-234).

2. The terms and conditions of the existing permit are being satisfactorily met, see attached TA dated March 22, 2007 (R645-303-233.110).

3. The present underground coal mining activities are in compliance with the environmental protection standards of the Act and the Utah State Program (R645-303-233.120).

4. The requested renewal will not substantially jeopardize the operator's continuing ability to comply with the Act and the Utah State Program (R645-303-233.130).

5. The Permittee has provided evidence of having liability insurance (Ace American Insurance Company, Policy #HDO G2 1732 576)(R645-303-233.140).

6. The Permittee has posted a reclamation surety in the required amount and has provided evidence that the surety will remain in full effect for the additional permit period. (St. Paul Fire and Marine Insurance Company, Bond #40000SA1915 in the amount of $4,439,000)(R645-303-233.150).

7. The Permittee has submitted updated information as required by the Division at this time, (R645-233.160).

Permit Supervisor

Permit Supervisor

Associate Director of Mining

Director

O:\041002.CON\FINAL\PERMIT\2007Renewal\DD_RN07.doc

FEDERAL **May 21, 2007**

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple
Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340

This permit, C/041/0002, is issued for the State of Utah by the Utah Division of Oil, Gas and Mining (DOGM) to:

Canyon Fuel Company, LLC
225 North 5th Street, Suite 900
Grand Junction, Colorado 85101
(970) 263-5130

for the SUFCO Mine (previously the Convulsion Canyon Mine.) Canyon Fuel Company, LLC is the lessee of federal, state and fee-owned property. A performance bond is filed with the DOGM in the amount of $4,439,000.00 payable to the state of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (OSMRE). DOGM must receive a copy of this permit signed and dated by the permittee.

Sec. 1 **STATUTES 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 coal mining and reclamation operations on the following described lands within the permit area at the SUFCO Mine situated in the state of Utah, Sevier and Emery Counties, and located:

Township 20 South, Range 5 East, SLBM

Section 35:	S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, SE1/4
Section 36:	W1/2SW1/4, SE1/4SW1/4

Township 21 South, Range 4 East, SLBM

Section 12:	E1/2SE1/4
Section 13:	E1/2NE1/4, S1/2
Section 14:	E1/2SW1/4, SE1/4
Section 23:	E1/2, E1/2W1/2
Section 24:	All

Section 25: All
Section 36: All

Township 21 South, Range 5 East, SLBM

Section 1: lots 3-4, S1/2SW1/4, SW1/4SE1/4
Section 2: lots 1-4, S1/2S1/2
Section 4: lots 1-4, S1/2S1/2
Section 5: lots 1-4, S1/2S1/2
Section 7: lots 2-4, S1/2NE1/4, SE1/4
Sections 8-9: All
Section 10: E1/2, SE1/4NW1/4, E1/2SW1/4, E1/2E1/2SW1/4SW1/4, E1/2E1/2NW1/4SW1/4, E1/2 E1/2SW1/4NW1/4
Sections 11-24: All
Section 25: N1/2, N1/2S1/2
Section 26: N1/2, NE1/4SW1/4, E1/2NW1/4SW1/4, SE1/4, W1/2NW1/4SW1/4, SW1/4SW1/4
Sections 27-34: All
Section 35: Lots 1, 2, W1/2NW1/4, N1/2SW1/4

Township 21 South, Range 6 East, SLBM

Section 19: lots 3-4, E1/2SW1/4
Section 30: lots 1-3, E1/2NW1/4, NE1/4SW1/4

Township 22 South, Range 4 East, SLBM

Section 1: All
Section 12: N1/2, N1/2SE1/4, portions of NE1/4SW1/4 and S1/2
Section 18: NW1/4NE1/4

Township 22 South, Range 5 East, SLBM

Section 3: Lots 1-4, S1/2N1/2, NE1/4SW1/4, S1/2SW1/4, N1/2SE1/4, SW1/4SE1/4
Section 4: Lots 1, 2, S1/2NE1/4, SE1/4SE1/4, W1/2W1/2
Section 5: All
Section 6: All
Section 7: All
Section 8: All
Section 9: NE1/4NE1/4
Section 10: W1/2NE1/4, NW1/4, N1/2SW1/4
Section 17: NE1/4, N1/2NW1/4
Section 18: N1/2

This legal description is for the permit area of the SUFCO Mine included in the mining and reclamation plan on file at the Division. The permittee is authorized to conduct coal mining and reclamation operations on the foregoing described property subject to the conditions of the leases, including all conditions and all other applicable conditions, laws and regulations.

Sec. 3 **COMPLIANCE** - The permittee will comply with the terms and conditions of the permit, all applicable performance standards and requirements of the State Program.

Sec. 4 **PERMIT TERM** - This permit expires on May 21, 2012.

Sec. 5 **ASSIGNMENT OF PERMIT RIGHTS** - The permit rights may not be transferred, assigned or sold without the approval of the Director, DOGM. 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.

Sec. 6 **RIGHT OF ENTRY** - The permittee shall allow the authorized representative of the DOGM, including but not limited to inspectors, and representatives of OSMRE, 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, R645-400-110, 30 CFR 842.13 and R645-400-220; and,

(b) be accompanied by private persons for the purpose of conducting an inspection in accordance with R645-400-100 and 30 CFR 842, when the inspection is in response to an alleged violation reported by the private person.

Sec. 7 **SCOPE OF OPERATIONS** - The permittee shall conduct coal mining and reclamation operations only on those lands specifically designated as within the permit area on the maps submitted in the mining and reclamation plan and permit application and approved for the term of the permit and which are subject to the performance bond.

Sec. 8 **ENVIRONMENTAL IMPACTS** - The permittee shall minimize any adverse impact to the environment or public health and safety through but not limited to:

(a) accelerated monitoring 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 DOGM 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 PAYMENT** - The operator shall pay all reclamation fees required by 30 CFR Part 870 for coal produced under the permit, for sale, transfer or use.

Sec. 13 **AUTHORIZED AGENT** - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.

Sec. 14 **COMPLIANCE WITH OTHER LAWS** - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq,) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.

Sec. 15 **PERMIT RENEWAL** - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act, the approved Utah State program and 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 DOGM. DOGM, after coordination

with OSMRE, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by DOGM within the time frame specified by DOGM.

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

Sec. 18 **SPECIAL CONDITIONS** - There is a special condition 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 DOGM and the permittee at any time to adjust to changed conditions or to correct an oversight. DOGM may amend these conditions at any time without the consent of the permittee in order to make them consistent with any new federal or state statutes and any new regulations.

THE STATE OF UTAH

By: John R. Baza
Director, Division of Oil, Gas & Mining

Date: 5/18/07

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

_____
Authorized Representative of the Permittee
(Name and Title)

Date:_____

ATTACHMENT A

1) Canyon Fuel Company, LLC must submit water quality data for the SUFCO Mine in an electronic format through the Electronic Data Input web site, http://linux1.ogm.utah.gov/cgi-bin/appx-ogm.cgi

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Emery,)

I, Richard Shaw, on oath, say that I am the Publisher of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and that the first publication was on the 13th day of February, 2007 and that the last publication of such notice was in the issue of such newspaper dated the 6th day of March, 2007.

Richard Shaw - Publisher

Subscribed and sworn to before me this 6th day of March, 2007.

Notary Public My commission expires January 10, 2011 Residing at Price, Utah

Publication fee, $ 1001.28

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
845 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011

LEGAL NOTICE

Canyon Fuel Company LLC, 225 North 5th Street, 9th Floor, Grand Junction, CO 81501 has filed an application for a coal mining permit renewal under the laws of the State of Utah and the U.S. Office of Surface Mining.

Approval of this application will allow coal mining operations at the SUFCO Mine to continue within the leasehold interest and fee lands owned by Canyon Fuel Company, LLC. The lands on which mining is to continue are located in Sevier and Emery County and include parts of the Fishlake National Forest and Manti-LaSal National Forest. The mine portals are located 30 miles east of Salina, Utah, located within Section 12, NW1/4, Township 22 S., Range 4 E. The approximately 26,767.14 acre leasehold involves all or part of the following coal leases and fee land which have been assigned or deeded to Canyon Fuel Company LLC.

Federal Coal Lease U-28297 - (2,631.98 acres) - Approved January 1979
T. 21 S., R. 5 E., SLM, Utah
Sec. 32, lots 1-4, N1/2S1/2
Sec. 33, lot 1, NW1/4SW1/4
T. 22 S., R. 5 E., SLM, Utah
Sec. 4, lot 4, SW1/4NW1/4, W1/2SW1/4
Sec. 5, all
Sec. 7, S1/2NE1/4, E1/2SW1/4, SE1/4
Sec. 8, all
Sec. 17, NE1/4, N1/2NW1/4
Sec. 18, NE1/4, E1/2NW1/4

Federal Coal Lease U-062453 - (480 acres) - Approved March 1962
T. 21 S., R. 5 E., SLM, Utah
Sec. 28, SW1/4SW1/4
Sec. 29, SE1/4SE1/4
Sec. 32, N1/2
Sec. 33, W1/2NW1/4

Federal Coal Lease U-0149084 - (240 acres) - Approved June 1966
T. 22 S., R. 4 E., SLM, Utah
Sec. 12, NE1/4 and N1/2SE1/4

Federal Coal Lease SL-062583 - (2,202.77 acres) - Approved September 1941
Modified January 1973
T. 21 S., R. 4 E., SLM, Utah
Sec. 36, S1/2
T. 21 S., R. 5 E., SLM, Utah
Sec. 31, all
T. 22 S., R. 4 E., SLM, Utah
Sec. 1, lots 1 to 4 incl. S1/2N1/2, S1/2
Sec. 12, NW1/4
T. 22 S., R. 5 E., SLM, Utah
Sec. 6, all
Sec. 7, N1/2NE1/4, E1/2NW1/4

Federal Coal Lease U-47080 - (1,158.05 acres) - Approved October 1981
T. 21 S., R. 4 E., SLM, Utah
Sec. 25, all
Sec. 36, N1/2
T. 21 S., R. 5 E., SLM, Utah
Sec. 30, lots 2-4, W1/2SE1/4

Federal Coal Lease U-63214 - (10,055.46 acres) - Approved July 1989

Modified June 1999
T. 21 S., R. 4 E., SLM, Utah
Sec. 12, E1/2SE1/4
Sec. 13, E1/2NE1/4, S1/2
Sec. 14, E1/2SW1/4, SE1/4
Sec. 23, E1/2, E1/2W1/2
Sec. 24, all
T. 21 S., R. 5 E., SLM, Utah
Sec. 10, SE1/4NW1/4, E1/2SW1/4, E1/2E1/2SW1/4SW1/4, E1/2E1/2NW1/4SW1/4, E1/2E1/2SW1/4NW1/4
Sec. 15, W1/2
Secs. 16-21, all
Sec. 22, W1/2
Sec. 26, W1/2NW1/4SW1/4, SW1/4SW1/4
Sec. 27, all
Sec. 28, N1/2, N1/2SW1/4, SE1/4SW1/4, SE1/4
Sec. 29, E1/2NE1/4, NE1/4SE1/4
Sec. 30, lot 1, N1/2NE1/4

LINDA THAYN
NOTARY PUBLIC-STATE OF UTAH
845 EAST MAIN
PRICE, UTAH 84501
COMM. EXP. 01-10-2011

Sec. 12, E1/2SE1/4
Sec. 13, E1/2NE1/4, S1/2
Sec. 14, E1/2SW1/4, SE1/4
Sec. 23, E1/2, E1/2W1/2
Sec. 24, all
T.21 S., R.5 E., SLM, Utah
Sec. 10, SE1/4NW1/4, E1/2SW1/4, E1/2E1/2SW1/4SW1/4, E1/2E1/2NW1/4SW1/4, E1/2E1/2SW1/4NW1/4
Sec. 15, W1/2
Secs. 16-21, all
Sec. 22, W1/2
Sec. 26, W1/2NW1/4SW1/4, SW1/4SW1/4
Sec. 27, all
Sec. 28, N1/2, N1/2SW1/4, SE1/4SW1/4, SE1/4
Sec. 29, E1/2NE1/4, NE1/4SE1/4
Sec. 30, lot 1, N1/2NE1/4
Sec. 33, lots 2-4, NE1/4, E1/2NW1/4, NE1/4SW1/4, N1/2SE1/4
Sec. 34, all
Sec. 35, lots 1, 2, W1/2NW1/4, N1/2SW1/4

T.22 S., R.5 E., SLB&M, Utah
Sec. 3, lots 1-4, S1/2N1/2, NE1/4SW1/4, S1/2SW1/4, N1/2SE1/4, SW1/4SE1/4
Sec. 4, lots 1, 2, S1/2NE1/4, SE1/4SE1/4
Sec. 9, NE1/4NE1/4
Sec. 10, W1/2NE1/4, NW1/4, N1/2SW1/4,

Federal Coal Lease UTU-76195 - (7,171.66 acres) - Approved October 1999
T.20 S., R.5 E., SLM
Sec. 35, S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, SE1/4
Sec. 36, W1/2SW1/4, SE1/4SW1/4

T.21 S., R.5 E., SLM
Sec. 1, lots 3-4, S1/2SW1/4, SW1/4 SE1/4
Sec. 2, lots 1-4, S1/2S1/2
Sec. 10, E1/2
Sec. 11-14 all
Sec. 15, E1/2
Sec. 22, E1/2
Sec. 23-24, all
Sec. 25, N1/2, N1/2S1/2
Sec. 26, N1/2, NE1/4SW1/4, E1/2NW1/4SW1/4, SE1/4

T.21 S., R.6 E., SLM
Sec. 19, lots 3-4, E1/2SW1/4
Sec. 30, lots 1-3, E1/2NW1/4, NE1/4SW1/4

State of Utah Coal Lease ML 49443-OBA - (2,134.19 acres) - Approved October 2004
T.21 S., R.5 E., SLB&M
Sec. 4, Lots 1, 2, 3, 4, S1/2S1/2
Sec. 5, Lots 1, 2, 3, 4, S1/2S1/2
Sec. 7, Lots 2, 3, 4, S1/2NE1/4, SE1/4
Sec. 8, All
Sec. 9, All

Fee lands owned by Canyon Fuel Company, LLC
T.21 S., R.5 E., SLB&M, Utah
Sec. 29, SW1/4, NW1/4, W1/2NE1/4, W1/2SE1/4
Sec. 30, S1/2NE1/4, E1/2SE1/4
containing 640.00 acres
T.22 S., R.4 E., SLB&M, Utah
Sec. 18, NW1/4NE1/4
containing 40 acres

After filing, copies of the permit application will be available for inspection at the following locations: Utah Division of Oil, Gas and Mining, 1594 West North Temple, Suite 210, Salt Lake City, Utah; and Sevier County Courthouse, Richfield, Utah.

Written comments or requests for an informal conference regarding this application may be addressed within 30 days of the last publication date of this notice, to the Utah Division of Oil, Gas and Mining, Box 145801, Salt Lake City, Utah 84114-5801.

Published in the Emery County Progress February 13, 20, 27, and March 6, 2007.

AFFIDAVIT OF PUBLICATION

County of Sevier, State of Utah, ss.

I, SHALON PUZEY, being first duly sworn, depose and say I am the Legal Secretary of THE RICHFIELD REAPER, a weekly paper having a bona fide circulation of more than 200 subscribers in the State of Utah, published every Wednesday at Richfield, Sevier County, Utah.

That the notice CANYON FUEL CO. a copy of which is attached hereto, was published in said paper for 4 consecutive issues, the first publication having been made in the issue of the 14 day of FEB 2007, and the last publication in the issue of the 7 day of MAR 2007 that the said notice was published in the regular and entire issue of every number of said paper during the period of times and publication, and that the same was published in the newspaper proper and not in a supplement.

Shalon Puzey

Subscribed and sworn to before me this 14 day of FEB, 2007

Mari Fuellenbach
Notary Public

Notary Public
MARI FUELLENBACH
25 S Main Street
Richfield, Utah 84701
My Commission Expires
March 24, 2009
State of Utah

PUBLIC NOTICE
CANYON FUEL CO.

Canyon Fuel Company, LLC, 225 North 5th Street, 9th Floor, Grand Junction, CO 81501 has filed an application for a coal mining permit renewal under the laws of the State of Utah and the U.S. Office of Surface Mining.

Approval of this application will allow coal mining operations at the SUFCO Mine to continue within the leasehold interest and fee lands owned by Canyon Fuel Company, LLC. The lands on which mining is to continue are located in Sevier and Emery County and include parts of the Fishlake National Forest and Manti-La Sal National Forest. The mine portals are located 30 miles east of Salina, Utah located within Section 12, NW1/4, Township 22 S., Range 4 E. The approximately 26,767.14 acre leasehold involves all or part of the following coal leases and fee land which have been assigned or deeded to Canyon Fuel Company, LLC.

Federal Coal Lease U-28297 (2,631.98 acres) Approved January 1979
T. 21 S., R. 5 E., SLM, Utah
Sec. 32, lots 1-4, N1/2S1/2
Sec. 33, lot 1, NW1/4SW1/4
T. 22 S., R. 5 E., SLM, Utah
Sec. 4, lot 4, SW1/4NW1/4, W1/2SW1/4
Sec. 5, all
Sec. 7, lot 1, S1/2NE1/4, E1/2SW1/4, SE1/4
Sec. 8, all
Sec. 17, NE1/4, N1/2NW1/4
Sec. 18, NE1/4, E1/2NW1/4
Federal Coal Lease U-062453 (480 acres) - Approved March 1962
T. 21 S., R. 5 E., SLM, Utah
Sec. 28, SW1/4SW1/4
Sec. 29, SE1/4SE1/4
Sec. 32, N1/2
Sec. 33, W1/2NW1/4
Federal Coal Lease U-0149084 (240 acres) Approved June 1966
T. 22 S., R. 4 E., SLM, Utah
Sec. 12, NE1/4 and N1/2SE1/4
Federal Coal Lease SL-062583 (2,202.77 acres) Approved September 1941 Modified January 1978
T. 21 S., R. 4 E., SLM, Utah
Sec. 36, S1/2
T. 21 S., R. 5 E., SLM, Utah
Sec. 31, all
T. 22 S., R. 4 E., SLM, Utah
Sec. 1, lots 1 to 4, incl. S1/2N1/2, S1/2
Sec. 12, NW1/4
T. 22 S., R. 5 E., SLM, Utah
Sec. 6, all
Sec. 7, N1/2NE1/4, E1/2NW1/4
Federal Coal Lease U-47080 (1,153.05 acres) Approved October 1981
T. 21 S., R. 4 E., SLM, Utah
Sec. 25, all
Sec. 36, N1/2
T. 21 S., R. 5 E., SLM, Utah
Sec. 30, lots 2-4, W1/2SE1/4
Federal Coal Lease U-63214 (10,055.46 acres) Approved July 1989
Modified June 1999
T. 21 S., R. 4 E., SLM, Utah
Sec. 12, E1/2SE1/4
Sec. 13, E1/2NE1/4, S1/2

S1/2S1/2
Sec. 5, Lots 1, 2, 3, S1/2S1/2
Sec. 7, Lots 2, 3, S1/2NE1/4, SE1/4
Sec. 8, All
Sec. 9, All
Fee lands owned by Canyon Fuel Company, LLC
T. 21 S., R. 5 E., SLB&M, Utah
Sec. 29, SWA/4, NWA/4, W1/2NE1/4, W1/2SE1/4
Sec. 30, S1/2NE1/4, E1/2SE1/4
containing 640.00 acres
T. 22 S., R. 4 E., SLB&M, Utah
Sec. 18, NW1/4NE1/4 containing 40 acres

After filing, copies of the permit application will be available for inspection at the following locations: Utah Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Salt Lake City, Utah; and Sevier County Courthouse, Richfield, Utah.

Written comments or requests for an informal conference regarding this application may be addressed within 30 days of the last publication date of this notice to the Utah Division of Oil, Gas and Mining, Box 145801, Salt Lake City, Utah 84114-5801.

Published in The Richfield Reaper February 14, 21, 28 and March 7, 2007. UPAXLP.

Mari Fuellenbach

Notary Public

Notary Public
MARI FUELLENBACH
25 S Main Street
Richfield, Utah 84701
My Commission Expires
March 24, 2009
State of Utah

5571

T. 21 S., R. 5 E., SLM, Utah
Sec. 31, all;
T. 22 S., R. 4 E., SLM, Utah
Sec. 1, lots 1 to 4, incl. S1/2N1/2, S1/2
Sec. 12, NW1/4
T. 22 S., R. 5 E., SLM, Utah
Sec. 6, all;
Sec. 7, N1/2NE1/4, E1/2NW1/4
Federal Coal Lease U-47080 (1,158.05 acres) - Approved October 1981
T. 21 S., R. 4 E., SLM, Utah
Sec. 25, all;
Sec. 36, N1/2
T. 21 S., R. 5 E., SLM, Utah
Sec. 30, lots 2-4, W1/2SE1/4
Federal Coal Lease U-63214 (10,055.46 acres) - Approved July 1989
Modified June 1999
T. 21 S., R. 4 E., SLM, Utah
Sec. 12, E1/2SE1/4
Sec. 13, E1/2NE1/4, S1/2
Sec. 14, E1/2SW1/4, SE1/4
Sec. 23, E1/2, E1/2W1/2
Sec. 24, all
T. 21 S., R. 5 E., SLM, Utah
Sec. 10, SE1/4NW1/4, E1/2SW1/4, E1/2E1/2SW1/4SW1/4, E1/2E1/2NW1/4SW1/4, E1/2E1/2SW1/4NW1/4
Sec. 15, W1/2
Secs. 16-21, all;
Sec. 22, W1/2
Sec. 26, W1/2NW1/4SW1/4, SW1/4SW1/4
Sec. 27, all;
Sec. 28, N1/2, N1/2SW1/4, SE1/4SW1/4, SE1/4
Sec. 29, E1/2NE1/4, NE1/4SE1/4
Sec. 30, lot 1, N1/2NE1/4
Sec. 33, lots 2-4, NE1/4, E1/2NW1/4, NE1/4SW1/4, N1/2SE1/4
Sec. 34, all;
Sec. 35, lots 1, 2, W1/2NW1/4, N1/2SW1/4
T. 22 S., R. 5 E., SLB&M, Utah
Sec. 3, lots 1-4, S1/2N1/2, NE1/4SW1/4, S1/2SW1/4, N1/2SE1/4, SW1/4SE1/4
Sec. 4, lots 1, 2, S1/2NE1/4, SE1/4SE1/4
Sec. 9, NE1/4NE1/4
Sec. 10, W1/2NE1/4, NW1/4, N1/2SW1/4
Federal Coal Lease UTU-76195 - (7,171.66 acres) - Approved October 1999
T. 20 S., R. 5 E., SLM
Sec. 1, 35, S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4, S1/2SW1/4, SE1/4
Sec. 36, W1/2SW1/4, SE1/4SW1/4
T. 21 S., R. 5 E., SLM
Sec. 1, lots 3-4, S1/2SW1/4, SW1/4SE1/4
Sec. 2, lots 1-4, S1/2S1/2
Sec. 10, E1/2
Sec. 11-14, all
Sec. 15, E1/2
Sec. 22, E1/2
Sec. 23-24, all
Sec. 25, N1/2, N1/2S1/2
Sec. 26, N1/2, NE1/4SW1/4, E1/2NW1/4SW1/4, SE1/4
T. 21 S., R. 6 E., SLM
Sec. 19, lots 3-4, E1/2SW1/4
Sec. 30, lots 1-3, E1/2NW1/4, NE1/4SW1/4
State of Utah Coal Lease ML 49443-OBA - (2,134.19 acres) - Approved October 2004
T. 21 S., R. 5 E., SLB&M

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After filing, co
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Lake City, Utah
County Courthou
Utah.
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March 7, 2007. UP

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

May 18, 2007

TO: Compliance File

FROM: Pamela Grubaugh-Littig, Permit Supervisor

RE: 510 (c) Recommendation for Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002

As of this writing of this memo, there are no NOVs or COs which are not corrected or in the process of being corrected for the SUFCO Mine. There are no finalized civil penalties, which are outstanding and overdue in the name of Canyon Fuel Company, LLC. Canyon Fuel Company, LLC 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.

Attached is a recommendation from the OSM Applicant Violator System for the SUFCO Mine that states there are no outstanding violations.

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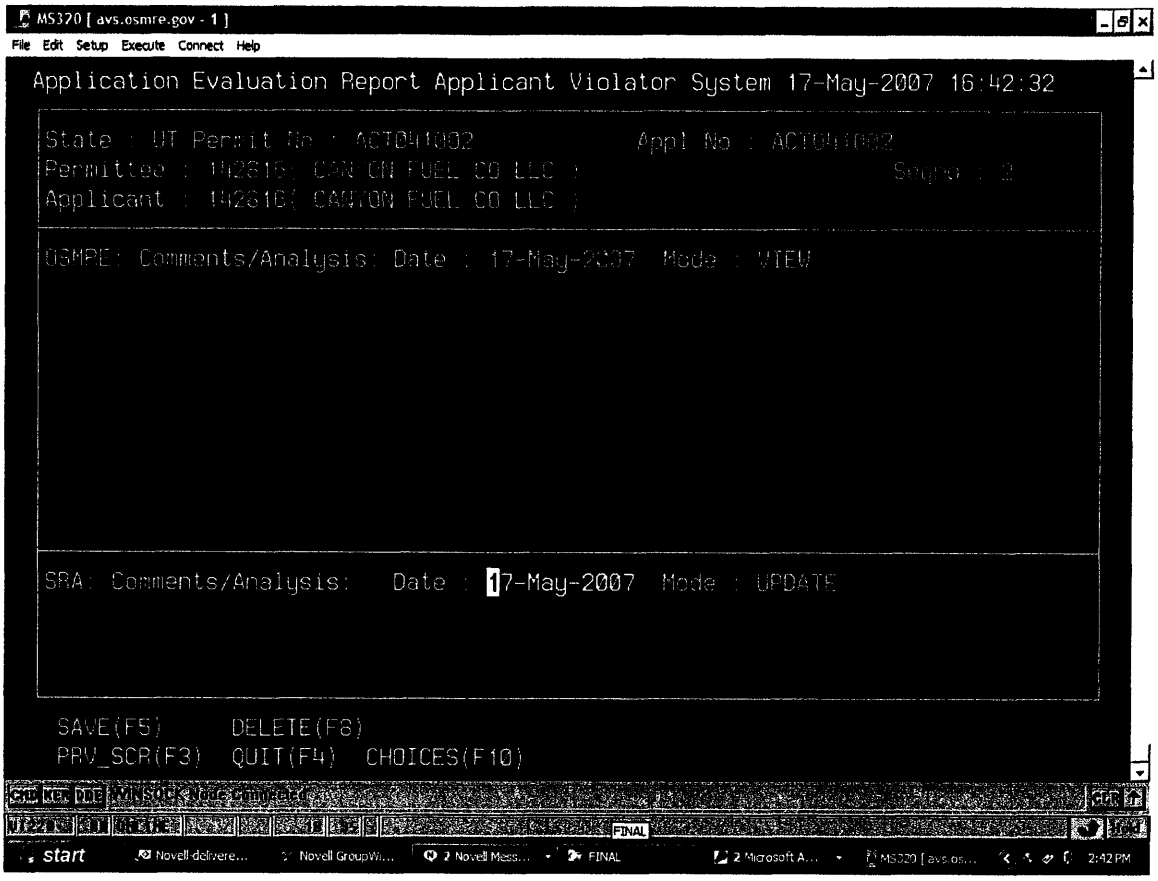
1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING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Application Evaluation Report Applicant Violator System 17-May-2007 16:42:32
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Permittee : 142816(CANYON FUEL CO LLC)
Applicant : 142816(CANYON FUEL CO LLC)
OSMRE: Comments/Analysis: Date : 17-May-2007 Mode : VIEW
SRA: Comments/Analysis: Date : 17-May-2007 Mode : UPDATE
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State of Utah

Utah Oil Gas and Mining

Coal Regulatory Program

SUFCO Mine
Canyon Fuel Company, LLC
Technical Analysis
March 22, 2007

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TECHNICAL ANALYSIS DESCRIPTION

The Division ensures that coal mining and reclamation operations in the State of Utah are consistent with the Coal Mining Reclamation Act of 1979 (Utah Code Annotated 40-10) and the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87). The Utah R645 Coal Mining Rules are the procedures to implement the Act. The Division reviews each permit or application for permit change, renewal, transfer, assignment, or sale of permit right for conformance to the R645-Coal Mining Rules. The Applicant/Permittee must comply with all the minimum regulatory requirements as established by the R645 Coal Mining Rules.

The regulatory requirements for obtaining a Utah Coal Mining Permit are included in the section headings of the Technical Analysis (TA) for reference. A complete and current copy of the coal rules can be found at http://ogm.utah.gov

The TA is organized into section headings following the organization of the R645-Coal Mining Rules. The Division analyzes each section and writes findings to indicate whether or not the application is in compliance with the requirements of that section of the R645-Coal Mining Rules.

ADMINISTRATIVE INFORMATION

OWNERSHIP AND CONTROL

Regulatory Reference: R645-301-112

Analysis:

General Chapter 1 volume contains information on corporate ownership for SUFCO and affiliated Utah mines: Soldier Canyon Mine, Banning Loadout, and Dugout Canyon Mines. (Section 111 of the MRP). (At the Division, General Chapter 1 has been filed with the C/007/0018 Soldier Canyon Mine MRP.)

Section 112.400 of the MRP and Table 1-1 and Figure 1 of General Chapter 1 provide a listing of affiliated coal mining operations under the control Arch Coal Co. and subsidiaries. The affiliated Utah mines are Skyline Mine, Soldier Canyon Mine, Banning Loadout, Dugout Canyon Mine, Gordon Creek No. 2, 7, and 8, Gordon Creek No. 3 and 6, and Huntington Canyon No. 4 mine.

Findings:

The Ownership and Control information provided in the MRP meets the requirements of the Regulations.

VIOLATION INFORMATION

Regulatory Reference: R645-301-113

Analysis:

Section 113 of the MRP indicates that a current listing of violation information is provided in the General Chapter 1 volume for Utah affiliated mines (filed at the Division with the Soldier Canyon Mine MRPC/007/018).

Findings:

The Violation information provided in the MRP meets the requirements of the Regulations.

RIGHT OF ENTRY

Regulatory Reference: R645-301-114

Analysis:

Lease agreement ML-49443 between the State of Utah and Ark Land Coal Company and Arch Coal Co. is included in Appendix 1-2 and provides the right of entry for coal in the Upper Hiawatha coal zone within the Blackhawk formation.

The location of the SITLA Muddy Tract is shown on Plate 5-6, Land Ownership and Permit Area Map. Legal descriptions for ML-49443 are provided in Section 114 of the MRP.

Findings:

The Right of Entry information provided in the MRP meets the requirements of the Regulations.

UNSUITABILITY CLAIMS

Regulatory Reference: R645-301-115

Analysis:

The land described by lease ML-49443 lies within the Manti-LaSal National Forest. Plate 5-6 shows the location of lease ML 49443, which includes land within Sections 4, 5, 7, 8, and 9 of T. 21 S., R.5 E. The coal identified in the lease lies beneath Big Ridge portrayed on the intersection of the following 7.5minute quadrangle maps: Heliotrope Mountain, Flagstaff Peak, Acord Lakes and Emery West. There are no cemeteries, occupied dwellings or maintained public roads within the lease. Section 4.1.1.1 describes previous study of the roadless Muddy Tract area for wilderness designation, but no wilderness designation was made. There are no lands currently under study or administrative proceedings for unsuitability claims.

Findings:

The Unsuitability Claims information provided in the MRP meets the requirements of the Regulations.

PERMIT TERM, INSURANCE, PROOF OF PUBLICATION, AND FACILITIES OR STRUCTURES USED IN COMMON

Regulatory Reference: R645-301-116, R645-301-117

Analysis:

The most recent permit for SUFCO was issued on May 20, 2002 and will expire on May 20, 2007.

The insurance policy currently on file with the Division meets regulatory requirements.

On February 7, 2000, the Division approved an amendment where the Pines Tract public notice was included in the existing mining and reclamation plan.

Findings:

Information provided in the MRP meets the requirements of this section of the Regulations.

ADMINISTRATIVE INFORMATION

ENVIRONMENTAL RESOURCE INFORMATION

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

GENERAL

Regulatory Reference: 30 CFR Sec. 783.12; R645-301-621, -301-721.

Analysis:

The MRP meets the General Environmental Resource Information as provided in R645-301-621 and -721. The Division finds that these standards are met because geologic and hydrologic environmental resource information for the SUFCO permit and adjacent areas are presented in Chapter 6, Geology, and Chapter 7, Hydrology, of the MRP. Additional geology and hydrology information is presented in the probable hydrologic consequence (PHC) determinations for the Quitchupah, Pines, and SITLA Muddy Tracts in Appendices 7-17, 7-18, and 7-20, respectively.

Findings:

The General Environmental Resource information provided in the SITLA Muddy Tract amendment meets the requirements of the State regulations.

PERMIT AREA

Regulatory Requirements: 30 CFR Sec. 783.12; R645-301-521.

Analysis:

The Permittee met the requirements for the R645 – Rules by a describing and identifying the lands subject to surface coal mining operations over the estimated life of mine. In Section 114 of the MRP, the Permittee lists the legal description for the permit. In Section 116 of the MPR, the Permittee lists the total acreage for the permit and disturbed areas. School and Institutional Trust Lands Administration (SITLA) Lease ML-49443, referred to as the SITLA Muddy Tract, adds 2,134.19 acres to the existing, 24,632.95 acre permit area, making a new total of 26,767.14 acres in the permit area (Section 116 of the MRP). The permit boundaries are shown on Plate 5-6, Land Ownership and Permit Area Map.

Findings:

The Permit Area information provided in the MRP meets the requirements of the Regulations.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

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

Analysis:

The MRP, as amended for the recent 150-acre incidental boundary change, contains a report on cultural resources in the Pines Tract. The Pines Tract contains ten previously recorded and twelve newly identified cultural resource sites. Of these, seven sites are considered eligible for nomination to the National Register of Historic Places. Also discovered were eight isolated artifacts. The sites include a historic sawmill and associated buildings and several lithic scatters and rock shelters. The rock shelters are near canyon rims, and the sawmill is in the upper part of the East Fork of Box Canyon.

The MRP indicates the permit area contains no cemeteries, public parks, or units of the National System of Trails or the Wild and Scenic Rivers System, and none are identified in the application.

Findings:

The Historic and Archeological Resource information provided in the MRP meets the requirements of the Regulations.

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.18; R645-301-724.

Analysis:

The MRP meets the hydrology Environmental Description for Climatological Resource Information as provided in R645-301-724.400. The Division finds that these standards are met because information on climatic resources representative of the SUFCO Mine region is presented in the MRP in Section 7.2.4.4, Climatological Information. Some of the climatological information has been updated for the inclusion of the Muddy Tract in Appendix 7-20, Investigation of Surface and Groundwater Systems in the SITLA Muddy Tract Area, Sevier County, Utah: Probable Hydrologic Consequences of Coal Mining in the SITLA Muddy Tract and Recommendations for Surface and Groundwater Monitoring. Climatological data has been collected since 1986 at a weather station located at the mine surface facilities. Because of the localized nature of summer rainstorms in the area, a second weather station was added in 2004 to the Pines tract at the head of the East Fork of Box Canyon downstream of Joe's Mill Ponds. This station collects temperature and precipitation data and is operational from May through October. The Joe's Mill Pond weather station is located approximately one-mile east of the SITLA Muddy Tract. Yearly temperature and precipitation data is submitted with the mine's annual report.

Soil descriptions for Big Ridge in SITLA Muddy Tract indicate that the area receives between 20 – 30 inches of precipitation.

Findings:

The Climatological Resource information provided in the SITLA Muddy Tract amendment meets the requirements of the State regulations.

VEGETATION RESOURCE INFORMATION

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

Vegetation communities are mapped on Plate 3-1. This map shows riparian communities along both forks of Box Canyon Creek and next to Muddy Creek.. Appendix 3-9 contains a discussion of plant communities in the lease area, including dominant species and approximate percentage of the area covered by each community.

The Pines Tract portion of Plate 3-1 has vegetation mapping information directly from the Environmental Impact Statement. The vegetation community classification scheme is different in the Pines Tract compared to the rest of the permit area, and boundary lines do not match between the Pines Tract and Quitchupah areas. The map shows the sources for the two different sets of information.

The current mining and reclamation plan contains quantitative vegetation information for several areas within the permit area, not just the surface facilities area. The vegetation communities sampled include at least three that are similar to the mountain mahogany/Salina wild rye community in the breakout area, including ponderosa pine/manzanita/mountain brush, mountain brush, and pinyon/juniper/mountain mahogany.

For the breakout, the permittee only plans to disturb 0.017 acres, an area of about 720 square feet or the equivalent of a square with sides of about 27 feet. Considering the small size of the breakout and considering the current plan contains quantitative vegetation information for communities very similar to what exists at the proposed breakout, the Division does not feel additional quantitative vegetation data is needed for the breakout area.

By lease stipulation, the permittee is required to monitor the effects of underground mining on vegetation, and the current mining and reclamation plan contains a plan to do this with color infrared photography every five years. Color infrared photography can detect water stress, so it is appropriate for monitoring potential effects of mining on riparian vegetation.

The Forest Service commented that the permittee should monitor some hanging garden communities in Box Canyon. The permittee is monitoring Link Trail columbines and other vegetation in the main fork of Box Canyon using photopoints, and the mine plan contains a commitment to do this monitoring.

Link Canyon contains some segments of riparian and/or wetland vegetation, particularly below the Link Canyon Mine portals. These areas are shown on Plate 3-1. These areas should be specifically included in the color infrared photographs.

Vegetation types specific to the Muddy lease tract are listed on plate 3-1, (Plant Communities and Sampling areas), of the application. The applicant has made a commitment in Chapter Three Section 3.2.1.1to "upgrade and further improve the data displayed on plate 3-1 before the end of 2006". The applicant has also committed to include a description of the vegetation types located within the proposed lease tract.

A discussion on the potential subsidence related impacts from mining is included in Chapter Three pages 3-44, 45, 45A, B and C. The application includes a list of possible threatened, endangered and candidate plant species identified in the U. S. Fish and Wildlife Service current listing. Table 3-1 on page 3-14 of the MRP provides a 2005 listing of the plant species. The application includes a reference to this table and the table has been updated to include the current 2005 plant listings.

Findings:

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

FISH AND WILDLIFE RESOURCE INFORMATION

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

Analysis:

Wildlife Information

Appendix 3-9 contains a report with a discussion of wildlife use of the area. According to this report, there are about 80 species of mammals, 130 species of birds, eight amphibians, and 17 reptiles that may occur in the Pines Tract area.

Plate 3-2 shows elk ranges, and Plate 3-3 shows deer ranges and raptor nests. Most of the proposed addition to the permit area contains critical elk winter range. Nearly all of the area is high priority deer winter range.

The proposed addition contains six golden eagle nests and one falcon scrape. According to Plate 3-3, four of the eagle nests were inactive and two were tended, but it is not clear how current this data is. The permittee commits in the mining and reclamation plan to monitor any area with suitable habitat where raptor nests could be adversely affected by mining for both known and potential new nests. This will be done annually on a helicopter flight near the end of May.

Muddy Creek and the lower portion of Box Canyon Creek support fish populations. These barely enter parts of the Pines Tract lease but would not be undermined.

Threatened and Endangered Species

As part of the 150-acre incidental boundary change, lists of threatened, endangered, and sensitive species have been recently updated. Appendix 3-9 is a report on the vegetation and

wildlife of the Pines Tract area, and it discusses threatened, endangered, and sensitive species that might be in the area. All but one of the listed threatened and endangered plant species discussed in the report grow at elevations lower than the mine; they are basically desert species and are adapted to soils derived from geologic formations not found within the Pines Tract area. The only high elevation species is Heliotrope milkvetch (Astragalus montii) which is known only from Flagstaff limestone at elevations of 10,990 to 11,320 feet on the Wasatch Plateau. Flagstaff limestone does not outcrop in the current permit area or in the proposed addition, and the highest elevation in the mine area is about 9160 feet on Duncan Mountain, well below the reported lower elevation limit for this species.

Table 2 of the report in Appendix 3-9 lists seven sensitive plant species that were investigated for the EIS. Of these, only one, the Link Trail columbine (Aquilegia flavescens Var. rubicunda), has been documented to occur in the area. Two other species, the Arizona willow (Salix arizonica) and canyon sweetvetch (Hedysarum occidentale Var. canone) have potential habitat in the proposed addition to the permit area, but they have not been found.

Link Trail columbines have been found in both the main and east forks of Box Canyon, and although they have been found in areas with no obvious subsurface water source, they mostly grow in relatively wet areas, often in cracks in the sandstone. The most likely effects to Link Trail columbine plants would be from loss of water. Some of the populations in the main fork of Box Canyon are being monitored for possible effects caused by mining. The east fork has not been surveyed as extensively as the main fork, and it is not known if the permittee documented the location(s) of any population(s).

Longwall mining to the east of the main fork of Box Canyon is expected to occur in 2000, so the effects of this mining on groundwater and on the populations of Link Trail columbines in this canyon should be evident before any mining occurs east of the east fork of Box Canyon. The permittee has committed monitor columbines in the east fork if it is determined that mining negatively affects the populations monitored as part of the 150-acre incidental boundary change east of the main fork.

Table 3 in Appendix 3-9 includes ten listed threatened, endangered, and candidate wildlife species that were evaluated for occurrence in the Pines Tract area. These are the same species included in the EIS. Peregrine falcons were included in the analysis, but they are no longer listed as threatened or endangered. They are still protected, however.

Bald eagles could occasionally pass through or roost in the area, but the mine is unlikely to have any negative effects.

According to the EIS, the willow flycatcher has recently been found on the Wasatch Plateau north of the mine area, but it is not known if this was the southwestern willow flycatcher subspecies. The Forest Service reviewed habitats in the project area for the EIS and determined that ". . . while some habitat does exist in the area, this habitat is not suitable as willow flycatcher nesting habitat."

Except for peregrine falcons which have been documented to nest within about one-half mile of the Pines Tract, none of the other wildlife species in Table 3 is likely to occur in the area. Through water depletions, the mine could potentially adversely affect the four fish species listed, but

the increase in the size of the permit area is not expected to increase water consumption.

Spotted bats, northern goshawks, and northern three-toed woodpeckers have been found in the project area, and the Pines Tract contains potential habitat for flammulated owls. All of these are Forest Service Region 4 Sensitive Species.

The Forest Service commented verbally that the sage grouse is a Forest Service Region 4 sensitive species that should be included in the list in Table 3-3; however, the permittee indicated in their cover letter for the March 9, 2000, submittal that the most current list of sensitive species does not include the sage grouse. Once it is officially listed, the plan will be modified accordingly.

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

A current raptor survey is included in Appendix 3-4 of the SUFCO Mine MRP Confidential file. According to the information in the survey the raptor nests are located outside the areas of planned subsidence. The applicant has committed to developing a mitigation plan with the DWR and USFWS should a new nest have the potential of being disturbed by subsidence activities.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

Impacts of mining have the potential to affect water quantity in drainages of the Colorado River basin. This in turn has the potential to affect four Colorado River endangered fish species (Colorado pikeminnow [squawfish], humpback chub, bonytail chub, and razorback sucker). The USFWS considers depletions or significant changes to inflow quantities in the Colorado River drainage as a potential impact to these endangered fish. Water users may have to mitigate any negative impacts if there are considerable changes to inflow volumes or if a mine's water consumption is greater than 100 acre-feet per year. Currently, the mitigation fee is approximately $15.00 per acre-foot of depletion. This may change marginally from year to year.

Pages 3-40 and 3-40A address potential water depletions from mining operations that may have an affect on endangered fish species identified in pertinent fish recovery programs. Calculations of current water depletions from mining activities are included. The water consumption from the mine results in a net gain of 5544.3 acre-feet per year net gain. The Permittee provided all necessary calculations with supporting documentation for evaluation of the Windy Gap Process. The submitted information came from an evaluation of the water consumption process during the operational or active period of the coal extraction process. Analysis of the information led to a determination that the sum of any water depletions or additions for the SUFCO mining operations (including dust control) and explorations led to a positive affect. The current value of water contributed is greater than the amount of water consumed by the mining operations.

For future permit reviews, the Permittee must submit new water consumption calculations if changes in mining operations significantly change current total estimates.

Bald and Golden Eagles

Appendix 3-11 of the MRP includes the status of Bald and Golden Eagles up to 2005. Bald Eagles do not nest in the area but are typically inhabitants during migration. According to the Cirrus report provided as appendix 3-11 five Bald Eagles have been seen along Cowboy creek during the fall migration of 2003. As noted in the Fish and Wildlife Resource Information section a current raptor survey has been included to update the status of Golden Eagles in the Muddy Tract lease area.

Findings:

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

VEGETATION

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

Analysis:

The applicant has made a commitment in Chapter Three Section 3.2.1.1to "upgrade and further improve the data displayed on plate 3-1 before the end of 2006". The applicant has also committed to include a description of the vegetation types located within the proposed lease tract.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-411, -301-220.

Analysis:

Appendix 2.7 and 2.8. provide an Order III Soil Survey of the the Pines Tract lease area.

Appendix 2.7.provides further detail on the Muddy Tract Break out disturbed soils in Attachments B (laboratory information) and C (field data). This survey was conducted in June of 1999 by James Nyenhuis, a Certified Professional Soil Scientist.

The soil contains an A horizon which is approximately 4 inches deep and which has a texture of sandy clay loam. The laboratory analysis of the A horizon clearly indicate it to be superior growing medium with N, P, K, and Zn values that are three times more concentrated than in the B and C horizons. Likewise the concentrations of Fe and Mn are twice as great in the A horizon than the lower horizons.

The B and C horizons had a texture of clay loam. All horizons contained 25 to 30% stones and gravels. Map unit 107 soil is described as a deep soil, but the depth of the soil at Muddy Canyon breakout pit locations could not be determined due to the presence of stones, cobbles and boulders which inhibited further digging below 20 inches.

The permeability of this soil is moderately slow. The soil is well drained. The erosion condition of the survey site was slight. The erosion hazard of the bare surface is high, due to the steep 70% slope (1.5h: 1.0v)

There is no planned surface disturbance associated with the SITLA Muddy Tract. An Order III level soil survey was included in the application to provide general reconnaissance information about the surface. Soil types are described in Appendix 2-10. The major soil taxonomic order is Mollisol, reflecting the rich, deep soils on pediment terraces.

Prior to any surface disturbing activity, an Order I soil survey must be conducted of the proposed disturbed area.

Findings:

The Soil Resources information provided in the MRP meets the regulatory Requirements.

LAND-USE RESOURCE INFORMATION

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

Analysis:

Land use within the SITLA Muddy Tract is described in Section 4.1.1.1 and illustrated on Plate 4-1b. The land is within the Manti-LaSal National Forest. The land is managed for big game range and forage. Other existing land uses are described in Section 4.1.1.1 as timber production, livestock grazing, wildlife habitat, recreation and associated travel on forest development roads. Existing forest development roads are single-lane, native surface, category 2 roads, recommended for high clearance vehicle traffic.

The SITLA Muddy Tract is within the Emery C & H grazing allotment, supporting 1,387 head of cattle. Stock is watered at springs, streams, and ponds (see State Appropriated Water Rights, Hydrologic Resource Information section of this TA for more discussion).

Forest users include recreational visitors and hunters with the highest use in the fall during the deer and elk hunts. Forest development roads provide access to the lease area for foot traffic, bicycle, horse, ATV and snowmobile etc.

Findings:

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

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR Sec. 785.19; R645-302-320.

Analysis:

The permittee has provided alluvial valley (AVF) floor characterization in Plate 9-1 and described the potential for flood irrigation of lands in the MRP. Hydrologic resource information has been reviewed concerning the potential for AVFs existing within and down stream of the PTL. Alluvial sediments are sparse and the canyons are narrow within Box Canyon. More sediments and riparian areas are present in Muddy Creek Canyon, however the canyon are still constricted and wide alluvial plains do not exist. AVF do not exist in the since of providing suitable flood or subirrigation within the canyons. AVFs potential exists at the mouth of the large canyons, several mines away from the permit area.

Findings:

The Alluvial Valley Floors information provided in the MRP meets the requirements of the Regulations.

PRIME FARMLAND

Regulatory Reference: 30 CFR Sec. 785.16, 823; R645-301-221, -302-270.

Analysis:

Section 2.2.1 discusses the prime farmland status of the permit area. The NRCS consultation letters are provided in Appendix 2-1.

Order III level soil survey information was included in the application to provide general reconnaissance information about the surface within SITLA lease ML-49443. Plate 2-3 Soil Types SITLA Muddy Tract shows four soils within the ML-49443 lease area, at elevations from 8400 to 9000 ft. Soil types are described in Appendix 2-10. The major soil taxonomic order is Mollisol, reflecting the rich, deep soils on pediment terraces. The temperature regime for all is frigid. There are no irrigated lands. Plate 4-1b indicates that the land is currently used as open range.

Findings:

The Division finds, in consultation with the NRCS, that there are no prime farmlands within the permit area.

GEOLOGIC RESOURCE INFORMATION

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

Analysis:

Geological resource information for the SITLA Muddy Tract and the rest of the SUFCO Mine is supplied in Chapter 6. The permittee presents the regional setting in which the stratigraphy and structural geology of the proposed mine area are described. No igneous or metamorphic units are found in the area. The formations exposed are sedimentary (Plate 6-1 and Figure 6-1) and are mostly of Cretaceous Age. The Mancos Shale is considered the base layer. It is a very thick formation in this area and consists of massive beds of sandstone and shale. The shale layer acts as an aquitard restricting downward flow of groundwater.

The Blackhawk Formation bares the coal for this mine. Within the SUFCO permit area the Blackhawk Formation varies in thickness from 70 to 830 feet, generally thickening northeastward. Three coal seams with thickness greater than five feet (the Upper Hiawatha Seam, and two other of lesser importance: the lower Hiawatha Seam and Duncan Seam) are found in the Blackhawk Formation within the mine property (Figure 6). The upper Hiawatha Seam is the only one of the three that is minable within most of the permit area. The seam has a thickness of between 9 to 18 feet over most of the permit area, but thins due to mid-seam parting to the southeastwhere it becomes unminable. The Duncan zone may correlate with the Muddy Coal Seam, which occurs north of the SITLA Muddy Tract.

The mine area lies midway between the Joe's Valley-Paradixe Fault Zone to the east and the Musinia Fault zone to the west. Rock units in the mine area strike roughly N 40degrees E and dip 1 to 2 degrees (about 250 feet per mile) to the northwest (Plate 6-1).

Findings:

The information provided by the permittee is considered adequate to meet the minimum requirements of the Geologic Resource Information section.

HYDROLOGIC RESOURCE INFORMATION

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

Analysis:

Sampling and Analysis

The MRP meets the hydrology Environmental Description for Sampling and Analysis as provided in R645-301-723. The Division finds that these standards are met because, as stated in Section 7.2.3, Sampling and Analysis, of the mine's existing MRP, "all water samples collected for use in this MR&P have been analyzed according to the methods in either the "Standard Methods for the Examination of Water and Waste Water" or 40 CFR parts 136 and 434".

Baseline Information

The application meets the hydrology Environmental Description for Baseline

Information as provided in R645-301-724. Hydrologic baseline information for the permit and surrounding areas is discussed in Section 7.2.4 of the MRP. Hydrologic baseline data for the Quitchupah Tract and the 150-acre lease modification area is presented in Appendix 7-17, for the Pines Tract in Appendix 7-18, and the SITLA Muddy Tract in Appendix 7-20. The groundwater, surface water, and geologic information provided meets the standards as provided in R645-724.100, .200, and .300, respectively. Furthermore, the baseline information was used to make a probable hydrologic consequences determination (PHC) for each of the tracts as presented in Appendices 7-17, 7-18, and 7-20, an assessment of the viability of reclamation, and an assessment of the potential for material damage outside of the permit area. A brief description of the baseline data collection for each tract is presented below.

As presented in Appendix 7-17, collection of the hydrologic baseline data for the Quitchupah Tract began in 1983 with quarterly monitoring of 5 stream sites, 4 spring sites, 13 wells, mine water discharge, and a roof drip site in the mine. Upon acquisition of the Quitchupah Tract in 1987, 1 stream site, 3 spring sites, and 7 wells were added to the monitoring. A solute and isotopic composition study of groundwater within the mine was conducted by Mayo and Associates in 1993. In 1995 and 1996, Mayo and Associates collected samples of the 7 stream sites and 7 spring sites of SUFCO's monitoring program for isotopic composition analysis and performed gain-loss measurements on Quitchupah Creek and its tributaries. As an addendum to Appendix 7-17 for the inclusion of the 150-acre lease modification area to the Quitchupah Tract, additional baseline data was collected for 2 stream sites and 3 spring sites beginning in 1997.

Hydroligic monitoring data for the Pines Tract was collected from stream and spring sites for a report prepared by the United States Geological Survey (USGS) in cooperation with the U.S. Bureau of Land Management (BLM) (Thiros and Cody, 1991). As presented in Appendix 7-18, some of this data was used in conjunction with the hydrologic baseline data collected for the Pines Tract beginning in 1997 with quarterly monitoring of 7 stream sites and 6 spring sites. Baseline data was also used from two springs in the Pines Tract that were already monitored as part of the SUFCO water monitoring program. Analysis of unstable isotopic compositions were performed on selected stream and spring sites from the Pines Tract.

Appendix 7-20 presents the seasonal field and laboratory data for stream, spring, and groundwater well monitoring sites within and adjacent to the SITLA Muddy Tract. The data was compiled from the Division electronic database (EDI) located at the internet site: http://ogm.utah.gov/coal/edi/wqdb.htm. The Muddy Tract water monitoring data on the Division EDI was compiled from the report "Muddy Creek Tract: Surface and Groundwater Technical Report" (October 2004) prepared by Cirrus Ecological Solutions, LC, for the Manti-La Sal National Forest. The report is the result of 3.5 years of field data collection for the Muddy Tract, including the SITLA lease area, beginning in the fall of 2000. Baseline seasonal field and laboratory water monitoring data includes all of the recommended monitoring sites for the SITLA Muddy Tract.

Ground-water information.

Baseline data presented in the MRP provides information on the location and ownership for the permit and adjacent areas of existing wells, springs, and other ground-water resources, seasonal quality and quantity of ground water, and usage. There is general agreement among

the studies that the recharge to the saturated zones is principally by snowmelt seeping into outcrops. Groundwater movement is controlled mainly by fractures, dip of the beds (dip is approximately 2 degrees to the northeast), and hydraulic conductivity of the strata. The movement of groundwater is regarded as relatively rapid. More seeps and springs appear along the eastern edge of escarpments which is consistent with the concept of groundwater following the dip slope.

Mayo and Associates have proposed a hydraulic disconnect between in-mine waters and near-surface groundwater. Mayo is considered a leading authority on isotopic dating of groundwater resources by some managing agencies and mining operators. Studies conducted by his firm have identified the groundwater regimes for several mining operations. Analysis of the groundwater for the SUFCO permit area is substantiated by tritium analysis and carbon dating which shows the mine waters to be very old (greater that 7,000 to 20,000 years) as compared to meteoric waters that replenish the near surface waters). The cause of this disconnect is attributed to shale and mudstones in the Blackhawk Formation that hinder the downward migration of water. Mayo has concluded that groundwater should not be diverted from the Castlegate Sandstone into the Blackhawk Formation as a result of mining in the permit area.

Surface-water information.

Baseline data presented in the MRP provides information on the name, location, ownership, and description of all surface-water bodies including as streams, lakes, and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Most of the stream flow is attributed to runoff from snowmelt or rain. Spring flow contributes the most to the baseflow of the streams in later summer and fall months. Based on the baseline and quarterly water monitoring data collected, streams that have been determined to be perennial within the permit area include the North and South Forks of Quitchupah Creek, Convulsion Canyon Creek (Quitchupah Creek), Muddy Creek, Box Canyon Creek, the East Fork of Box Canyon Creek, and Cowboy Creek.

Several stock watering ponds are located on the permit area. The water rights to the stock watering ponds are owned by the Forest Service and used by cattlemen with leases to run cattle on the Forest Service land. Claims have been made by the Forest Service and cattlemen that surface cracking due to mining related subsidence within the Quitchupah and Pines Tracts has had impacts on some of the ponds. Because no baseline data was collected on the ponds, and because drought conditions have existed from 1999 through 2004, it is not clear to the Division that the ponds have been adversely impacted. In order to mitigate the potential damage to the ponds, SUFCO has taken action by monitoring pond conditions, applying bentonitic clay seals to the pond floors, and hauling water in for livestock. SUFCO is also working with the Forest Service to install guzzlers for wildlife and developing a plan to establish a water system between ponds for cattle. The Division is keeping track of the negotiations between SUFCO and the Forest Service and cattlemen to make sure that the potentially affected parties are satisfied. If the Forest Service and cattlemen are not satisfied with the situation and make a formal complaint to the Division, then the Division will make a finding at that time as to whether material damage has occurred. The Forest Service did not request that baseline data be collected for ponds within the SITLA Muddy Tract, probably because the ponds within that tract are not active.

Supplemental information

Because of potential adverse impacts to the perennial stream and springs within the East Fork of Box Canyon due to undermining by the 3LPE and 4LPE panels in the Pines Tract, the Division has requested supplemental information from SUFCO. The MRP contains a commitment by SUFCO to a monitoring and mitigation plan that includes baseline hydrologic, vegetation, and subsidence monitoring and ongoing monitoring during and after mining to determine impacts. The plan also outlines mitigation to potential damage. The monitoring and mitigation plan is in Appendix 3-10 of the MRP. Findings on the adequacy of the plan are presented in sections below in this Master TA.

Baseline Cumulative Impact Area Information

The MRP meets the hydrology Environmental Description for Baseline Cumulative Impact Area Information as provided in R645-301-725. The Division finds that these standards are met because Chapter 7 of the MRP and the PHC determinations located in Appendices 7-17, 7-18, and 7-20 adequately presents hydrologic and geologic information for the cumulative impact area needed by the Division to provide an assessment of the probable cumulative hydrologic impacts. Additional information is also in a report prepared by Cirrus Ecological Solutions, LC, that has been provided to the Division by the Manti-La Sal Forest Service.

Modeling

No modeling has been included as part of the MRP.

Probable Hydrologic Consequences Determination

The application meets the hydrology Environmental Description for Probable Hydrologic Consequences (PHC) Determination as provided in R645-301-728. The PHC determinations for the Quitchupah, Pines, and SITLA Muddy Tracts are provided in the MRP in Appendices 7-17, 7-18, and 7-20, respectively. The determinations of PHC are based on the baseline hydrologic information. The PHC determinations make findings on potential hydrologic impacts due to coal mining in the permit area as outlined in R645-301-728.300. The PHC determinations are accurate and complete and find that the coal mining activities proposed for the permit area will not result in the contamination, diminution, or interruption of State-appropriated water or of surface water or groundwater within or adjacent to the permit area. The PHCs also recommend water monitoring plans for the Quitchupah, Pines, and SITLA Muddy Tracts to verify that mining-related activities do not adversely impact groundwater or surface-water resources.

Based on information provided in the PHC determination, there are two mechanisms where ground and surface water can be adversely impacted; the direct interception of groundwater by opening mine workings, and interception or rerouting of surface and groundwater by strata deformation. The PHCs address these issues by stating that groundwater in the Blackhawk Formation is discontinuous due to horizons of shales and mudstones and shales. Groundwater from Blackhawk Formation springs were radiocarbon dated between 500 years to 4000 years. The ages of these waters are younger than the water encountered in the mine workings which yield dates between 7500 years to 20,000 years.

Groundwater Monitoring Plan

The MRP meets the hydrology Environmental Description for Groundwater Monitoring Plan as provided in R645-301-724.100. The Division finds that these standards are met because the groundwater monitoring plan in the MRP was based on PHC determinations for the Quitchupah, Pines, and Muddy Creek Tracts. The groundwater monitoring plan is presented on Table 7-2 of the MRP and includes the monitoring of 23 springs and 6 groundwater monitoring wells.

For the SITLA Muddy Lease Tract, the monitoring plan was updated to include the addition of one spring monitoring site located within the SITLA Muddy Creek Tract (M-SP53), two spring monitoring sites located adjacent to the SITLA Muddy Creek Tract (M-SP08 and M-SP39), and one monitoring well site located within the SITLA Muddy Creek Tract (01-8-1). The spring monitoring sites are to be monitored quarterly for flow and field parameters and the groundwater monitoring well site is to be monitored quarterly for water levels. In addition, one spring monitoring site (GW-13) located within the SITLA Muddy Creek Tract is part of the existing SUFCO Mine groundwater monitoring plan. Following their review of the amendment and consultation with the Division, the Manti-La Sal Forest Service has requested the additional monitoring of springs located further downgradient of the proposed area to be mined. To comply with this request, the Permittee has included the monitoring of three springs located approximately 1 to 1.5 miles north of t he SITLA Muddy Tract (M-SP18, M-SP01, and M-SP-02).

Surface-Water Monitoring Plan

The application meets the hydrology Environmental Description for Surface Water Monitoring Plan as provided in R645-301-724.200. The Division finds that these standards are met because the surface water monitoring plan in the MRP was based on a PHC determination for the Quitchupah, Pines, and Muddy Creek Tracts. The surface-water monitoring plan is presented on Table 7-2 of the MRP and includes the monitoring of 20 stream sites.

For the SITLA Muddy Lease Tract, the monitoring plan was updated to include addition of one stream monitoring site (M-STR5) located downstream of the proposed permit boundary in Cowboy Creek. Cowboy Creek is a perennial stream that flows through a portion of the northwest corner of the SITLA Muddy Tract. There are no other perennial or intermittent streams to monitor within the proposed permit area. SUFCO Mine has made a commitment in the MRP to submit a mitigation plan prior to conducting full extraction mining beneath Cowboy Creek (p. 5-39c of the MRP).

State Appropriated Water Rights

The MRP meets the hydrology Environmental Description for State Appropriated Water Rights as provided in R645-301-724.100, -724.200. The Division finds that these standards are met because the water rights summary (Appendix 7-1, Water Rights Data) lists the water rights located within and adjacent to the permit area.

There are thirteen water rights listed by the Utah Division of Water Rights (DWR) within the SITLA Muddy Tract: five are for stockwatering directly on a spring; five are for stockwatering directly on a stream; and three are for stockwatering directly on a reservoir (stockwatering pond). The United States Forest Service owns all of the water rights listed for the SITLA Muddy Tract.

Findings:

The information in the MRP meets the Hydrologic Resource Information requirements of the State regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

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

Analysis:

Affected Area Boundary Maps

The Permittee met the requirements for showing the affected area boundaries. The Permittee is required to show the boundaries of all areas proposed to be affected over the estimated total life of the underground mining activities, with a description of size, sequence, and timing of the mining of subareas for which it is anticipated that additional permits will be sought. Plate 5-7, Land Ownership and Permit Area Map, shows the permit area.

Archeological Site Maps

The report on the archaeological resources contains maps showing where these sites are located. The information must remain in the confidential file.

Coal Resource and Geologic Information Maps

Plates 6-3 and 6-4 (geologic cross-sections B-B' and C-C') have been added. The revised Plate 6-1, Geology and Drillhole Location Map, includes federal lease UTU-76195 within the permit boundary and shows the locations of the two new cross-sections. Detailed geologic information is in the R2P2 on file with the BLM

Revised Plate 5-11 shows overburden isopach thickness for the SUFCO mine area, including the Pines tract. Revised Plate 5-10 shows the limits of anticipated subsidence for the same area.

Plate 5-7 the current MRP shows projected mining through the year 2004, plus outlines of additional longwall panels that are apparently projected for recovery at some time after 2004. Plate 5-7 indicates only about half of the Pines Tract Lease will be mined. In Section 5.2.2, Coal Recovery, the permittee states that mining is not planned for the extreme east and southeast portions

of the Pines Tract because of poor coal quality and insufficient seam height for the longwall equipment being used. Coal has also been lost to burn under several areas in the tract. The permittee states that the R2P2 on file with the BLM contains detailed mine plan and reserves calculations.

Existing Structures and Facilities Maps

The Permittee met the requirements of this section. The archeological sites, dirt roads, fences and runoff ponds and stock watering troughs are the only manmade structures that exist on the PTL (Plate 5-5). The ponds were developed as a watering source for livestock.

Plate 5-5 shows the existing structures and facilities for the permit area. Plate 5-2A is a detailed map of the surface facilities.

Existing Surface Configuration Maps

The Permittee met the requirements of this section. Plate 5-5 shows the existing surface configuration for the permit area.

The main mine facility was developed pre-SMCRA, therefore, maps of the pre-disturbed topography are not available. Plate 5-2D shows the pre-disturbed topography, that area was disturbed post-SMCRA.

Mine Workings Maps

The Permittee met the requirements for showing the mine workings. The Permittee is required to show the location and extent of know workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. Plate 5-1, Previously Mined Areas, shows the location of the previously mined areas.

Monitoring and Sampling Location Maps

The MRP meets the hydrology Maps, Plans, and Cross Sections of Resource Information for Monitoring and Sampling Location Maps as provided in R645-301-722.300. The Division finds that these standards are met because Plate 7-3, Hydrologic Monitoring Stations, includes the water monitoring and sampling sites of the groundwater and surface-water monitoring plan as outlined on Tabel 7-2 of the MRP. All sites on the plate are accompanied with an elevation identification.

Permit Area Boundary Maps

The Permittee met the requirements for showing the permit area boundary. The Permittee is required to show the boundaries of land within the proposed permit area upon which the Permittee has the legal right to enter and begin underground mining activities. Plate 5-7, Land Ownership and Permit Area Map, shows the permit area.

Surface and Subsurface Ownership Maps

The permittee has identified the surface and subsurface ownership on Plate 5-6. The

surface is USFS managed land the subsurface is federal coal reserves. Plate 5-6 shows the surface and subsurface ownership.

Subsurface Water Resource Maps

The MRP meets the hydrology Maps, Plans, and Cross Sections of Resource Information for Subsurface Water Resource Maps as provided in R645-301-722.100. The Division finds that these standards are met because Plate 7-1, Potentiometric Surface of the Blackhawk/Starpoint Aquifer, shows the potentiometric of the regional aquifer for the SUFCO Mine area. The plate does not need to be updated to include the Muddy Creek Tract because the plate shows groundwater elevations from 1989 prior to progression of mining that has caused several wells to be abandoned. One groundwater monitoring well (01-8-1) was added to the Muddy Creek Tract in 2001. However, the inclusion of groundwater elevation data from this well would not provide a more complete potentiometric surface map of the regional aquifer than the 1989 data provides given the fewer number of wells now available.

Additionally, Plate 7-2A, Surface and Groundwater Rights, Quitchupah Tract, and Plate 7-2B, Surface and Groundwater Rights, Pines and SITLA Muddy Tract, show the groundwater water rights locations for the permit and adjacent areas.

Surface Water Resource Maps

The MRP meets the hydrology Maps, Plans, and Cross Sections of Resource Information for Surface Water Resource Maps as provided in R645-301-722.200. The Division finds that these standards are met because the location of surface-water bodies within and adjacent to the permit area is presented on Plate 7-2A, Surface and Groundwater Rights, Quitchupah Tract, Plate 7-2B, Surface and Groundwater Rights, Pines and SITLA Muddy Tract, and Plate 7-3, Hydrologic Monitoring Stations.

Well Maps

No oil, gas or water production wells exist within the permit area.

Vegetation Reference Area Maps

The reference area is shown on a map in the current mining and reclamation plan. Well Maps

Water monitoring wells are located on Plate 7-3.

Contour Maps

The Permittee met the requirements of this section of the regulations. Plate 5-5 shows the contours of the entire permit area. The main mine facility was develop pre-SMCRA, so pre-disturbed contour maps for that area are not available. Pre-disturbed contour maps are available for remote areas of disturbance such as the refuse pile and the Link Canyon portals. Several maps such as Plate 7-2 have incorporated contour intervals on the maps.

Findings:

The information provided in the MRP meets the Maps, Plans, and Cross Sections of Resource Information requirements of the State regulations.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

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

Analysis:

The Permittee met the requirements for describing the mining operations and facilities. The Permittee describes the mining facilities in Section 5.2.6 of the MRP. In Section 5.2.8 the Permittee describes how spoil, coal processing waste, non-coal waste and mine development waste is handeled. The Permittee gives information on the type of coal mining, equipement that is used and projected tonnages in Section 5.2.3 of the MRP.

General

The permittee has identified probable hydrologic consequences of mining the PTL, which are described in Appendix 7-18, Probable Hydrologic Consequences. The PHC was incorporated as part of the 160 acre Incidental Boundary Change. The geologic setting controls the flow patterns and quality of surface and groundwater as they come in contact with the mineral constituents of the strata. The SR describes the Castlegate Sandstone which forms the rim and plateau of Box Canyon and Muddy Creek Canyon. The Blackhawk Formation, which contains the coal bearing units, underlies the Castlegate Sandstone. The Blackhawk Formation contains interbedded sequences of sandstones, siltstones, shales, mudstones and coal. The Upper Price River Formation overlies the area to the east of the canyon and some portions of the proposed lease. Several Plates submitted by the permittee show the topographic features of the area.

From past mining experience in areas adjacent to Box Canyon, it can be expected that fractures will develop at the surface, even when overburden height is as great as 800 feet. Recent, fractures along the canyon rim of the West Fork of Box Canyon and past mining under stock pond have shown that the natural joint pattern, which occurs in the area, can promote the effects of surface subsidence. The permittee has presented information that minimizes the effects of subsidence and fracturing. Fracture healing and groundwater flow patterns have been described, however conclusive evidence for fracture healing or mitigation has not been proven.

Information is still being collected and assembled from mining the West Fork of Box Canyon and the 150 acre incidental boundary change. Determination of impacts will not be concluded until the area is mined and hydrologic and subsidence data is analyzed.

The best method to obtain information for future impacts is to monitor impacted areas and try to extrapolate the information to future mine areas. Information is needed to determine if fractures close or heal, groundwater in the Castlegate Sandstone is reestablished after a time period,

vegetation is sustained by long-term groundwater sources or by short term surface water sources.

Type and Method of Mining Operations

The Permittee met the requirements for describing the type of mining operation. In Sections 526 and 528 of the MRP, the Permittee states how coal will be mined. The U.S. Forest Service has stipulated in the Record of Decision (ROD) that areas under perennial streams will not be mined. In response the permittee has established barriers under perennial sections of the East Fork of Box Canyon which will protect the stream and adjacent areas of the canyon rim from subsidence.

Facilities and Structures

The Permittee met the requirements of this section by listing the facilities and structures in Section 526 of the MRP. Mining is planned under most existing structures which include archeological sites, dirt roads, fences and runoff ponds and stock watering troughs. The permittee discussed potential impacts to surface structures and hydrologic sources and concluded that adverse impacts will not occur.

The U.S. Forest service has designated two archeological shelter and sites for protection against subsidence. One site, the Elusive Peacock is directly above a barrier established to protect a perennial stream and should not be impacted. The Refugia/Grotto site is located near a barrier wall separating the PTL from the Quitchupah Lease. This site contains a perennial pond at the base of the cliff which is the supply source of riparian habitat in the vicinity and downstream of the shelter. The permittee has planned to provide protection to the site from subsidence. The longwall panels in the PTL had to be realigned. The panels have been shifted at an angle to get the Refugia/Grotto area out of the nagle of draw. With the new alignment of the panels the site will not fall within the influence of the 15 degree angle of draw and impact zone.

The Forest Service has indicated that some stock water monitoring ponds in the region have been impacted by surface fracturing when undermined, while others have not. Rock pond and Johnson Pond in the Quitchupah Lease leak as a result of undermining and subsidence. These ponds are supplied by ephemeral runoff. Grouting of the pond has been conducted, however after heavy rainstorms personnel from the USFS witnessed that the ponds were no holding water The permittee anticipates that eventually sediment will fill any fractures that have developed to drain the pond and their use will be restored. It is not possible to predict the extent or duration of impacts. The permittee has also proposed mitigation plans to repair any damage.

Findings:

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

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: R645-301-140

Analysis:

Three of the significant or potentially significant cultural resource sites are in the subsidence area shown on Plate 5-10A. These are 42SV 2425, 42SV 2433, and 42SV 2434. Site 42SV 2425 is a lithic scatter, and the other sites are rock shelters that could be adversely affected.

The application says the monitoring, treatment plans, and mitigation of the cultural resource sites will be in accordance with the memorandum of agreement (MOA) between the Forest Service, SHPO, the Division, and the permittee. The permittee and the Division have signed this agreement, and the Forest Service and SHPO are expected to sign it. As soon as this agreement is signed, SHPO should be able to give its concurrence to the proposal. The permittee has committed in the application to follow the terms of this agreement.

Findings:

Information provided in the proposal is considered adequate to meet the requirements of this section of the regulations. The Division has taken into account the effect of the proposed permitting action on properties listed on and eligible for listing in the National Register of Historic Places, and the permittee has committed to adequately mitigate for potential damage to these sites.

EXISTING STRUCTURES:

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

Analysis:

The Permittee met the requirements for describing the existing structures that are used in connection with or to facilitate the surface coal mining and reclamation activities. An existing structure is defined by R645-100 as a structure or facility used in connection with or to facilitate coal mining and reclamation operations for which construction began prior to January 21, 1981.

Because the mine was in operation before January 21, 1981, some of the facilities are defined as existing structures. The Division inspects the mine site on a monthly bases to insure that all existing structures meet the performance standards.

Mining is planned under most existing structures which include archeological sites, dirt roads, fences and runoff ponds and stock watering troughs. The permittee discussed potential impacts to surface structures and hydrologic sources and concluded that adverse impacts will not occur.

The U.S. Forest service has designated two archeological shelter and sites for protection against subsidence. One site, the Elusive Peacock is directly above a barrier established to protect a perennial stream and should not be impacted. The Refugia/Grotto site is located near a barrier wall separating the PTL from the Quitchupah Lease. This site contains a perennial pond at the base of the cliff which is the supply source of riparian habitat in the vicinity and downstream of the shelter. The site appears to fall within the angle of draw of subsidence.

Some stock water monitoring ponds in the region have been impacted by surface fracturing when undermined, while others have not. Rock pond and Johnson Pond in the Quitchupah Lease leak as a result of undermining and subsidence. These ponds are supplied by ephemeral runoff. Grouting of the pond has been conducted, however after heavy rainstorms personnel from the USFS witnessed that the ponds were not holding water The permittee anticipates that eventually sediment will fill any fractures that have developed to drain the pond and their use will be restored. It is not possible to predict the extent or duration of impacts. The permittee has also proposed mitigation plans to repair any damage.

Findings:

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

RELOCATION OR USE OF PUBLIC ROADS

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

Analysis:

The Permittee does not use or relocated a public road within the disturbed areas. The main mine access road was upgraded from a USFS dirt road to a paved County road in 1977. The Permittee did upgrade an existing stock trail to allow vehicle access to the substation and water tank.

Findings:

The Permittee met the minimum requirements of this section.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR Sec. 784.26, 817.95; R645-301-244.

Analysis:

The permittee has proposed no activities that should require changes to the Air Quality Approval Order, so no changes are needed to this section of the mining and reclamation plan.

Findings:

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

COAL RECOVERY

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

Analysis:

The Permittee met the requirements for maximizing coal recovery . The Permittee and the BLM reviewed the mine plan as part of the resource recovery protection plan (R2P2.) The Division often relies on the R2P2 for information about maximizing coal recovery. The information in the R2P2 for the SUFCo Mine indicates that coal recovery will be maximized and the Division concerns with the conclusions.

Findings:

The Permittee met the minimum requirements of this section.

SUBSIDENCE CONTROL PLAN

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

Analysis:

Renewable Resources Survey

The Permittee meet the requirements of the R645 – Rules for this section. Those requirements are that the Permittee conduct a survey, which shall show whether structures or renewable resource lands exist within the proposed permit area and adjacent area and whether

subsidence, if it occurred, could cause material damage or diminution of reasonably foreseeable use of such structures or renewable resource lands. As part of the survey, the Permittee listed the quality and quantity of State appropriated water within the SITLA Muddy tract in Appendix 7-20.

The Permittee determined that there are renewable resources within the subsidence zone. Therefore, the Permittee must implement a subsidence control plan.

Subsidence Control Plan

- *A description of the method of coal removal, such as longwall mining, room-and-pillar removal, hydraulic mining, or other extraction methods, including the size, sequence, and timing for the development of underground workings.* The Permittee met those requirements by stating in Section 5.2.5.1, Subsection Mining Methods, of the MRP that longwall, and room and pillars are the mining methods.
- *A map of underground workings which describes the location and extent of areas in which planned-subsidence mining methods will be used and which includes all areas where measures will be taken to prevent or minimize subsidence and subsidence related damage and where appropriate, to correct subsidence-related material damage.* The Permittee met those requirements by showing the subsidence area for the Muddy and Pine Tract on Plate 5-10B.
- *A description of the physical conditions, such as depth of cover, seam thickness, and lithology, which affect the likelihood or extent of subsidence and subsidence-related damage.* The Permittee met those requirements by providing geological information in Chapter 6 of the MRP.
- *A description of monitoring, if any, needed to determine the commencement and degree of subsidence so that, when appropriate, other measures can be taken to prevent, reduce, or correct material damage.* The Permittee meet those requirements. In Section 5.2.5.1, Subsection Monitoring, of the MRP the Permittee states that control points for the aerial subsidence monitoring program are shown Plate 5-10A and Plate 5-10B. The subsidence monitoring points are shown on Table 5-2. The Permittee has also committed to taking color infrared photographs of the subsidence cracks in the West Fork of Box Canyon. These photos will be taken in 2008, 2013, and 2018. Surface monitoring of the West Fork of Box Canyon will be conducted annually. The annual monitoring of the West Fork of Box Canyon subsidence cracks will be submitted as part of the Mine's annual subsidence report.
- *Except for those areas where planned subsidence is projected to be used, a detailed description of the subsidence control measures that will be taken to prevent or minimize subsidence and subsidence-related damage, including, but not limited to: backstowing or backfilling of voids; leaving support pillars of coal; leaving areas in which no coal is removed, including a description of the overlying area to be protected by leaving the coal in place; and, taking measures on the surface to prevent material damage or lessening of the value or reasonably foreseeable use of the surface.* The Permittee met those

requirements by providing the subsidence control plan. The Permittee will use full extraction methods in the Muddy Tract. The Permittee will protect areas from subsidence by leaving support pillars when needed.

- *A description of the anticipated effects of planned subsidence, if any.* The Permittee met those requirements by describes the anticipated effects of subsidence in Section 5.2.5.1, Anticipated Effects of Subsidence in the MRP.

A description of the measures to be taken to mitigate or remedy any subsidence-related material damage to, or diminution in value or reasonably foreseeable use of the land, or structures or facilities to the extent required under State law. The Permittee meet the minimum requirements of the R645 – Rules. The Permittee included a detailed description of methods that can be used to mitigate the loss of State appropriated water in Section 7.31.8 of the MRP.

- *Other information specified by the Division, as necessary to demonstrate that the Permittee will be conducted in accordance with the performance standards for subsidence control.* The Division does not require other information at this time.

Performance Standards For Subsidence Control

The Permittee shall either adopt measures consistent with known technology which prevent subsidence from causing material damage to the extent technologically and economically feasible, maximize mine stability, and maintain the value and reasonably foreseeable use of surface lands; or, adopt mining technology which provides for planned subsidence in a predictable and controlled manner. Nothing in this part shall be construed to prohibit the standard method of room-and-pillar mining.

The Permittee shall comply with all provisions of the approved subsidence control plan.

The Permittee shall correct any material damage resulting from subsidence caused to surface lands, to the extent technologically and economically feasible, by restoring the land to a condition capable of maintaining the value and reasonably foreseeable uses which it was capable of supporting before subsidence, and, to the extent required under applicable provisions of State law, either correct material damage resulting from subsidence caused to any structures or facilities by repairing the damage or compensate the owner of such structures or facilities in the full amount of the diminution in value resulting from the subsidence. Repair of damage includes rehabilitation, restoration, or replacement of damaged structures or facilities. The Permittee may accomplish compensation by purchasing before mining of a non-cancelable premium-prepaid insurance policy.

Underground mining activities shall not be conducted beneath or adjacent to: public buildings and facilities; churches, schools, and hospitals; or, impoundments with a storage capacity of 20 acre-feet or more or bodies of water with a volume of 20 acre-feet or more, unless the subsidence control plan demonstrates that subsidence will not cause material damage to, or

reduce the reasonably foreseeable use of, such features or facilities. If the Division determines that it is necessary in order to minimize the potential for material damage to the features or facilities described above or to any aquifer or body of water that serves as a significant water source for any public water supply system, it may limit the percentage of coal extracted under or adjacent thereto.

The Permittee will not subside any of the following:

- Public buildings and facilities.
- Churches, schools, and hospitals.
- Impoundments with a storage capacity of 20 acre-feet or more or bodies of water with a volume of 20 acre-feet or more.

The Division has not determined subsidence will damage any aquifer or body of water that serves as a significant water source for any public water supply system.

If subsidence causes material damage to any of the features or facilities, the Division may suspend mining under or adjacent to such features or facilities until the subsidence control plan is modified to ensure prevention of further material damage to such features or facilities.

The Division shall suspend underground mining activities under urbanized areas, cities, towns, and communities, and adjacent to industrial or commercial buildings, major impoundments, or perennial streams, if imminent danger is found to inhabitants of the urbanized areas, cities, towns, or communities.

Within a schedule approved by the Division, the Permittee shall submit a detailed plan of the underground workings. The Division requires annual mine maps are part of the annual reports.

Notification

At least 6 months before mining, or within that period if approved by the Division, the underground mine the Permittee shall mail a notification to all owners and occupants of surface property and structures above the underground workings. The notification shall include, at a minimum, identification of specific areas in which mining will take place, dates that specific areas will be undermined, and the location or locations where the permittee's subsidence control plan may be examined.

Findings:

The information provided in the MRP is considered adequate to meet the requirements of the Subsidence Control Plan section of the R645 – Rules.

SLIDES AND OTHER DAMAGE

Regulatory Reference: 30 CFR Sec. 817.99; R645-301-515.

Analysis:

The Permittee met the requirements for this section by describing in Section 5.1.5 of the MRP the reporting and emergency procedure in the event of a slide or an impoundment hazard..

Findings:

The Permittee met the minimum requirements for reporting slides and other damages.

FISH AND WILDLIFE INFORMATION

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

Analysis:

Protection and enhancement plan.

The existing mining and reclamation plan contains commitments to protect wildlife from the adverse effects associated with mining. Underground mining is likely to have little if any effect on most species on the plateau, including deer, elk, and sage grouse.

Endangered and Threatened Species and Bald and Golden Eagles

The Environmental Impact Statement for the Pines Tract lists eighteen threatened and endangered species that could occur in the project area. The only species that might be affected are the southwestern willow flycatcher and the four threatened and endangered fish of the upper Colorado River basin. However, as discussed in the fish and wildlife resource information section of this analysis, there is no suitable habitat for the southwestern willow flycatcher in the area.

The Fish and Wildlife Service has determined that water losses from the upper Colorado River basin jeopardize the continued existence of the four threatened and endangered fish species found there. Mitigation is required when losses exceed 100 acre-feet per year. The mine is not expected to use additional water because of the increase in the size of the permit area, but there could potentially be some disruption of groundwater flows. The amount of loss is expected to be nonexistent or minor, and the environmental impact statement concludes "the effects of the proposed small water withdrawals are so limited in scope and intensity and are so far-removed from

the remaining populations of [the listed fish] species that they are negligible." For these reasons, the Division does not expect mitigation to be required.

On April 26, 2000, the Division received a letter from the Fish and Wildlife Service concurring with the Division's findings on threatened and endangered species.

Four eagle nests and one falcon scrape shown on Plate 3-3 are in the subsidence area shown on Plate 5-10. The current mining and reclamation plan says in Section 3.3.3.3 that any raptor nest that might be disturbed by subsidence will be evaluated by Wildlife Resources and the Fish and Wildlife Service. An appropriate plan of action will be developed on a case by case basis, and the permittee will obtain any permits necessary for disturbing the nest if this becomes necessary. The Division of Oil, Gas and Mining will be notified in advance. This plan is acceptable.

A golden eagle nest and a falcon scrape are on the north side of Muddy Canyon apparently in full view of the proposed breakout. They are about 3/4 mile from the breakout, and this is outside the buffer zone normally used for golden eagles. The application says if the scrape is still active at the time of construction, the breakout will be built outside the nesting period. This commitment is acceptable.

The Fish and Wildlife Information section of this analysis discusses potential effects of mining on the Link Trail columbine and monitoring requirements.

Three-toed woodpeckers, goshawks, and flammulated owls use Ponderosa pines and other tree species for roosting and nesting in and near the area; however, it is unlikely trees would be affected by underground mining. The EIS concluded that individuals of these species could possibly be affected but that there would be no significant effects to the populations or to the species.

The mining and reclamation plan contains a survey for bats in the Link Canyon and Muddy Creek areas. The consultants that did this survey suggested that subsidence could affect roosting areas and that some individuals could be lost; however, they felt new cracks would offset the ones destroyed and that there would be little net effect. They believe there could be some impact on local populations of spotted bats. The report says if subsidence occurred in spring and summer it might cause reproductive females to carry young to another less favorable roost site. In the winter, torpid bats might not have time to arouse and escape during subsidence.

Subsidence could occur in these areas as a general lowering of the topography or it could cause sudden failure of some rock features. Bats would likely either be unaffected or would not have time to fly away to escape subsidence.

From the information in the report, the Division draws the following conclusions about bats:

There are bats, including spotted bats, present in the general area although spotted bats may not be present in the upper part of Box Canyon.

There are no known hibernacula, maternal roosting sites, or other areas of heavy concentration in the area that would be subsided.

Cracks in rocks being used by bats could fail and kill or trap any animals using them, but since there are no known concentration areas, it is unlikely this would seriously reduce the local population. Generally, rock crevices and defective trees are used by only a few bats rather than large populations.

It is possible that new habitat could be created, but this is also unlikely.

For these reasons, there should be no need to mitigate possible effects on bats or to do further monitoring.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations. The Division finds the proposal will not adversely affect any threatened or endangered species, and the Fish and Wildlife Service has concurred with this conclusion.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

The Link Canyon topsoil stockpile holds 38 yd^3 (Section 2.3.1.1). The stockpile location is shown on Plate 5-2. Section 2.3.1.4 was revised to indicate that woody plants grubbed from the area were placed on top of the topsoil stockpile.

Recent work conducted on the topsoil stockpiles (Inspection Report June 6, 2003) was limited to a 10 x 10 area on the north slope of the topsoil stockpile. The topsoil pile construction currently described in the MRP, which included roughening techniques, and applications of mulch and seed with dates of work are all still relevant.

The area disturbed by the breakout is approximately 20 feet square, less than 0.01 acre. The location is on a very steep slope (70%). The plan for topsoil salvage is to collect what falls into the breakout, separate it from the coal and store it within the mine tunnel. Space will be made for approximately 25 CY of soil (enough to replace 20 inches of soil over the disturbance). The soil survey indicates that there is a four inch A horizon which is clearly superior in texture and fertility to

the soil below. The 400 square foot area would yield about 4 yards of topsoil. However, the logistics of soil salvage from the small area on a steep and remote slope makes the removal of the topsoil impractical. The operation plan is permissible under R645-301-232.710.

Findings:

The information provided in the MRP meets the topsoil/subsoil operation requirements of the R645 Coal Mining Rules.

VEGETATION

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

Analysis:

Chapter 3 of the current mining and reclamation plan contains a plan for interim revegetation that is adequate for the proposed breakout.

Findings:

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

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

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

Analysis:

Road Systems

The Permittee met the minimum requirements for road systems and other transportation facilities.

Road Classification

All roads must be classified as either primary or ancillary. The only primary road is the main haul road within the mine site. All other roads are ancillary roads. Travel routes within the mine site and coal refuse area are not classified as roads.

Plans and Drawings

The Permittee submitted the following information for each road.

- The designs and cross sections for the road are on Plate 5-2D and Plate 5-9. In addition, design information on ditches is located in Chapter 7.
- Designs for the road are in Section 5.2.7 and Section 5.3.4 of the MRP.A
- In Section 5.4.2.6 of the MRP, the Permittee states how the roads will be reclaimed.
- Since the roads will not be located in stream channels several design requirements are not applicable.

Performance Standards

All roads are required to meet specific performance standards. The Division inspects the site each month to ensure that the performance standards are meet. The general performance standards are Section 5.2.7 and Section 5.3.4 of the MRP.

Primary Road Requirements

All primary roads met the following standards:

- The designs for all primary roads were certified. See Plate 5-2D and Plate 5-9.
- All primary roads were have embankments with safety factors of 1.3 or greater.
- All primary roads have ditches that meet all the hydrology requirements.

Other Transportation Facilities

The only other transportation facilities are conveyor which are described in Section 5.2.7 of the MRP.

Findings:

The Permittee met the minimum requirements of this section.

HYDROLOGIC INFORMATION

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

Analysis:

Groundwater Monitoring

The MRP meets the hydrology Operation Plan for Groundwater Monitoring as provided in R645-301-724.210. The Division finds that these standards are met because the groundwater monitoring plan in the MRP was based on PHC determinations for the Quitchupah, Pines, and Muddy Creek Tracts. The groundwater monitoring plan is presented on Table 7-2 of the MRP and includes the monitoring of 23 springs and 6 groundwater monitoring wells.

For the SITLA Muddy Lease Tract, the monitoring plan was updated to include the addition of one spring monitoring site located within the SITLA Muddy Creek Tract (M-SP53), two spring monitoring sites located adjacent to the SITLA Muddy Creek Tract (M-SP08 and M-SP39), and one monitoring well site located within the SITLA Muddy Creek Tract (01-8-1). The spring monitoring sites are to be monitored quarterly for flow and field parameters and the groundwater monitoring well site is to be monitored quarterly for water levels. In addition, one spring monitoring site (GW-13) located within the SITLA Muddy Creek Tract is part of the existing SUFCO Mine groundwater monitoring plan. Following their review of the SITLA Muddy Tract amendment and consultation with the Division, the Manti-La Sal Forest Service requested the additional monitoring of springs located further downgradient of the proposed area to be mined. To comply with this request, the Permittee has included the monitoring of three springs located approximately 1 to 1.5 miles north of t he SITLA Muddy Tract (M-SP18, M-SP01, and M-SP-02).

Surface Water Monitoring

The MRP meets the hydrology Operation Plan for Surface Water Monitoring as provided in R645-301-724.200. The Division finds that these standards are met because the surface water monitoring plan in the MRP was based on a PHC determination for the Quitchupah, Pines, and Muddy Tracts. The surface-water monitoring plan is presented on Table 7-2 of the MRP and includes the monitoring of 20 stream sites.

For the SITLA Muddy Tract, the monitoring plan was updated to include addition of one stream monitoring site (M-STR5) located downstream of the proposed permit boundary in Cowboy Creek. Cowboy Creek is a perennial stream that flows through a portion of the northwest corner of the SITLA Muddy Tract. There are no other perennial or intermittent streams to monitor within the SITLA Muddy Tract. SUFCO Mine has made a commitment in the MRP to submit a mitigation plan prior to conducting full extraction mining beneath Cowboy Creek (p. 5-39c of the MRP).

Acid- and Toxic-Forming Materials and Underground Development Waste

Information on acid and toxic forming materials is presented in Chapter 6 of the MRP and on page 53 of the P.C. Sulfide mineral pyrite has been identified in SUFCO Mine. Although pyrite oxidation does occur acid mine drainage does not. Alkalinity of mine drainage water typically exceeds acidity by a factor of 20. The permittee claims that no acid-forming materials or any toxic forming materials have been identified or are suspected to exist in materials disturbed in the PTL.

Sampling of the waste quarterly during periods of waste hauling is described on p. 3-4 of Volume 3 of the MRP. Analytical information is provided in Volume 8 and will be included in the Annual Reports beginning in 2005. Previously, the last sampling of waste reported in the Annual Reports occurred in 1995.

The roof, floor and coal seam within the SITLA lease ML-49443 have been sampled. Laboratory Analyses will be added to Appendix 6-2 .

Transfer of Wells

Transfer of wells is not currently considered as part of the SUFCO MRP. Any future transfers will be in accordance with DOGM approval.

Discharges Into An Underground Mine

The SUFCO Mine plan does not anticipate any discharges into underground mines.

Gravity Discharges From Underground Mines

There are no gravity discharges planned from the SUFCO Mine. Intercepted groundwater is used in the mining process and excess water is pumped from the mine to the North Fork of Quitchupah Creek UPDES mine discharge site (003A). The mine is currently discharging approximately 3000 gallons per minute from the Quitchupah and Pines Tracts through UPDES outfall 003A.

Water-Quality Standards And Effluent Limitations

The MRP meets the regulatory water-quality standards because sediment control measures have been designed to prevent, to the extent possible, additional contributions of sediment to stream flow or runoff outside the permit area, to meet effluent limitations and to minimize erosion . SUFCO plans to maintain water quality standards by employing sediment control structures on disturbed areas and settling in-mine waters prior to their discharge.

Effluent limitations are set by the Utah Division of Water Quality (DWQ) for three UPDES (Utah Pollution Discharge Elimination System) points within the SUFCO permit area: UPDES 001 – emergency mine discharge point; UPDES 002 – discharge from the East Spring Canyon sediment pond; and UPDES 003 – discharge from the underground workings into the North Fork of Quitchupah Creek. These permitted dishcarges have been incorportated into the MRP and are presented in Appendix 7-7. The facility has been assigned UPDES permit No. UT0022918 by the DWQ. Effluent limitations set by the permit include total suspended solids (TSS) limits of 70.0 mg/L for a daily maximum discharge, 35 mg/L for a 7-day average discharge, and 25 mg/L for a 30-day average discharge. The UPDES outfalls are monitored at least twice monthly and the results are submitted in monthly discharge monitoring reports (DMRs) to the DWQ and the Division.

Diversions: General

All diversions within the disturbed area are temporary and have been designed to handle the 10-year/6-hour precipitation event of 1.3 inches. Diversions within the disturbed area consist of ditches and culverts. Diversions can be found at the facility area in East Spring Canyon, at the portal and substation areas in Link Canyon, and at the waste rock disposal site. According to the MRP, all diversions have been designed, located, constructed, maintained, and used to prevent, to the extent possible, additional contributions of suspended solids to stream flow outside the permit area.

Diversions: Perennial and Intermittent Streams

East Spring Canyon and Mud Spring Hollow are both intermittent streams and are the only streams diverted within the permit area. The stream flows are diverted under the fill of the mine facility by two large corrugated metal pipes. The diversion culverts are described in Sections 7.3.2.3 and 7.4.2.3.

Diversions: Miscellaneous Flows

The mine's seventeen diversion ditches are listed in Section 7.3.2.3, Diversions, Diversion Ditches, and described in Section 7.4.2.3, Diversions, Diversion Ditches, of the MRP. The diversion ditch designs are summarized in Table 7-9. The first twelve diversion ditches listed are for the facility area in East Spring Canyon. The last five diversion ditches listed are for the Link Canyon substation areas and portal. The first two diversion ditches listed for Link Canyon refer to the reclaimed Substation No. 1 ditch and road swell.

The mine's nine diversion culverts are listed in Section 7.3.2.3, Diversions, Diversion Culverts, and described in Section 7.4.2.3, Diversions, Diversion Culverts, of the MRP. The diversion culvert designs are summarized in Table 7-10.

Stream Buffer Zones[sm:)29]

As stated in Section 7.3.1.6, Stream Buffer Zones, of the MRP, all perennial and intermittent streams in the mine area are protected by 100-foot stream buffer zones on either side of these streams.

Sediment Control Measures

Sediment control measures are designed to prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area; meet the more stringent of applicable State or Federal effluent limitations; and, minimize erosion to the extent possible. As stated in Section 7.3.2, Sediment Control Measures, the structures used for the run-off control plan for the permit area include disturbed and undisturbed area diversion channels, sedimentation ponds, containment berms, silt fences, and road diversion culverts. As outlined in the MRP text of Sections 7.3.2 and 7.4.2, and the calculations and design of sediment control structures presented in Appendices 7-8 through 7-15, these sediment control measures are designed using industry standards and what is generally considered the best technology currently available (BTCA).

Alternative Sediment Control Areas (ASCAs)

There are eleven alternate sediment control areas (ASCAs) listed in Section 7.4.2 of the MRP that make up 3.256 acres of the permit area. The ASCAs described in the MRP have been implemented in the field, and represent the Best Technology Currently Available (BTCA) in controlling sediment in areas that do not report to the sedimentation pond.

Siltation Structures: General

Siltation structures within the disturbed area consist of three sedimentation ponds: the concrete sediment trap and main sedimentation pond located at the existing facility, and a sedimentation pond located at the waste rock disposal site. The operation and maintenance of the facility sedimentation ponds are described in Section 7.3.2.2 of the MRP and in Volume 3 of the MRP for the waste rock disposal site sedimentation pond.

Siltation Structures: Sedimentation Ponds

Siltation structures in the main facilities area consist of a concrete sediment trap and a sediment pond. The concrete sediment trap is designed to remove in excess of 65% of all solids from the disturbed area runoff before the water enters the main sedimentation pond. The sediment trap, constructed in series with the main pond, was implemented in order to reduce the size of the lower pond, as well as reduce the cleaning frequency necessary to keep the lower pond in compliance. The sedimentation pond and concrete sediment trap together contain the volume of sediment equivalent to 0.1 acre-foot per acre of disturbed area. The sedimentation

pond will fully contain the runoff from the 10-year/24-hour storm event and will adequately pass the 25-year/6-hour precipitation event through the emergency spillway.

The waste rock disposal site sedimentation pond was designed to contain a sediment volume equal to 0.0697 acre-foot per acre of disturbed area. The sedimentation pond will fully contain the runoff from the 10-year/24-hour storm event and will adequately pass the 25-year/6-hour precipitation event through the primary and emergency spillways.

Siltation Structures: Exemptions

The SUFCO Mine disturbed areas contain three areas classified as Small Area Exemptions (SAE's). These are: 1) the south side of the original substation pad area (above the office building); 2) the spring collection field in Convulsion Canyon; and 3) the water tank area northeast of the main facilities area. The total area for SAE is 0.623 acres. The demonstration for the SAE is a SEDCAD computer program as shown in Appendix 7-16, Vol. 10 of the MRP.

Discharge Structures

The discharge structures that exist within the disturbed areas consist of the primary and emergency spillways on each of the three sedimentation ponds. The spillway of the concrete sediment trap consists of an overflow weir which discharges to a 24-inch CMP culvert. The culvert drains directly to the main sedimentation pond. The primary spillway on the main sedimentation pond consists of a 12-inch steel riser with a covered oil-skimmer. The primary spillway discharges directly to the riprap lined emergency spillway channel below the pond. The emergency spillway on the waste rock disposal site sedimentation pond consists of a riprap-lined ditch of trapezoidal cross-section.

Impoundments

Impoundments within the permit area include the facility sedimentation pond (discussed above) and stock watering ponds. The Forest Service and cattlemen use and maintain several stock watering ponds located on Forest Service Land within the undisturbed area. The water rights to the stock watering ponds are owned by the Forest Service and used by cattlemen with leases to run cattle on the Forest Service land. Claims have been made by the Forest Service and cattlemen that surface cracking due to mining related subsidence within the Quitchupah and Pines Tracts has had impacts on some of the ponds. Because no baseline data was collected on the ponds, and because drought conditions have existed from 1999 through 2004, it is not clear to the Division that the ponds have been adversely impacted. In order to mitigate the potential damage to the ponds, SUFCO has taken action by monitoring pond conditions, applying bentonitic clay seals to the pond floors, and hauling water in for livestock. SUFCO is also working with the Forest Service to install guzzlers for wildlife and developing a plan to establish a water system between ponds for cattle. The Division is keeping track of the negotiations between SUFCO and the Forest Service and cattlemen to make sure that the potentially affected parties are satisfied.

If the Forest Service and cattlemen are not satisfied with the situation and make a formal complaint to the Division, then the Division will make a finding at that time. The Forest Service did not request that baseline data be collected for ponds within the SITLA Muddy Tract, probably because the ponds within that tract are not active.

Findings:

The information provided in the MRP meets the Operation Plan, Hydrologic Information requirements of the State regulations.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

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

Analysis:

The Permittee met the requirements for describing the support facilities and utility installations. The Permittee describes those items in Section 5.2.6 of the MRP.

Findings:

The Permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

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

Analysis:

Affected Area Maps

The Permittee met the requirements for showing the affected area boundaries. The Permittee is required to show the boundaries of all areas proposed to be affected over the estimated total life of the underground mining activities, with a description of size, sequence, and timing of the mining of subareas for which it is anticipated that additional permits will be sought. Plate 5-7, Land Ownership and Permit Area Map, shows the permit area.

Mining Facilities Maps

Plate 5-2A, Detail of East Spring Canyon Surface Facilities and Plate 5-2B Extended East Spring Canyon Surface Facilities are updated surface facilities maps. The maps show the current

structures and facilities at the main SUFCO facility. In addition Table 5-4, Description of Existing Structures has been updated.

Mine Workings Maps

The Permittee met the requirements for showing the mine workings. The Permittee is required to show the location and extent of known workings of proposed, active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. Plate 5-7, Upper Hiawatha Mine Plan 5-Year Projection show the operational and projected mine workings associated with the SITLA Muddy Tract.

Monitoring and Sampling Location Maps

The MRP meets the hydrology regulatory requirements Monitoring and Sampling Location Maps as provided in R645-301-731.730. The Division finds that these standards are met because Plate 7-3, Hydrologic Monitoring Stations, includes the water monitoring and sampling sites of the groundwater and surface-water monitoring plan as outlined on Tabel 7-2 of the MRP. All sites on the plate are accompanied with an elevation identification.

Certification Requirements

The Permittee met the requirements for map certification. The Permittee is required to have cross sections, maps, and plans that are required to show the design, location, elevation, or horizontal or vertical extent of the land surface or of a structure or facility used to conduct mining and reclamation operations shall be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, a professional geologist, or in any State which authorizes land surveyors to prepare and certify such cross sections, maps, and plans, a qualified, registered, professional land surveyor, with assistance from experts in related fields such as landscape architecture. All such maps associated with the SITLA Muddy Tract have been certified.

Findings:

The information provided in the MRP meets the Operation Plan, Maps, Plans, and Cross Sections of Mining Operations requirements of the State regulations.

SPOIL AND WASTE MATERIALS

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

Analysis:

Coal Mine Waste

The Permittee met the minimum requirements for this section of the regulations. R645-100 defines coal mine waste as coal processing waste and undeground development waste. The Permittee does not process coal at the mine site therefore, there is no coal processing waste.

The Permittee does produce underground development waste. All underground development waste that is brought to the surface will be disposed of at the waste rock disposal site (refuse pile.) The design, operaration plan and reclamation plan for the waste rock disposal site is in Volume 3 of the MRP.

Refuse Piles

The Permittee met the requirements for the construction and operation of the refuse pile. Inaddition, the Permittee also has a reclamation plan approved by the Division. The plans for the refuse pile are in Volume 3 of the MRP.

Certification of the refuse piles is provided to the Division quarterly (not in the Annual Reports). The report form being used does not include the volume of refuse hauled to the site. In August 2005, the waste rock site was estimated to hold 163,748 tons of waste rock.

The MRP indicates the waste rock site will be contemporaneously reclaimed and that the initial cell will cover 4.5 acres (Section 3.4, Volume 3). Map 4 of Volume 3, dated August 31, 2005, illustrates the status of reclaimed, active, and topsoil salvage areas at the refuse site. The first three lifts have been reclaimed. At the current rate of transport (3,200 TPY), the waste rock site will reach design capacity in 2016.

The 2003 Annual Report contains a vegetation analysis of three cells of the waste rock site.

Sampling of the waste quarterly during periods of waste hauling is described on p. 3-4 of Volume 3 of the MRP. Analytical information is provided in Volume 8 and will be included in the Annual Reports beginning in 2005. Previously, the last sampling of waste reported in the Annual Reports occurred in 1995.

Findings:

The information provided in the MRP meets the Spoil and Waste Materials requirements of the R645 Coal Mining Rules.

SIGNS AND MARKERS

Regulatory Reference: 30 CFR Sec. 817.11; R645-301-521.

Analysis:

The Permittee met the requirements for the placement of signs and markers by describing their placement in Section 5.2.1.2 of the MRP.

Findings:

The information in the MRP is adequate to meet the signs and markers regulations.

USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

Analysis:

General Requirements

The Permittee met the minimum requirements of this section of the MRP by stating in Section 5.2.4 that they would submit a blasting plan before conducting any surface blasting.

Findings:

The information in the MRP is adequate to meet the use of explosives sections of the R645-Rules.

RECLAMATION PLAN

GENERAL REQUIREMENTS

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

Analysis:

The permittee has provided a reclamation plan in the MRP, page 7-48. Since only a the breakout is proposed for surface disturbance, surface reclamation of the PTL is relatively small. Any surface disturbance from subsidence or affects to the hydrologic system on the PTL would be covered in mitigation during the operation phase.

Findings:

The permittee has submitted sufficient information for this section

POSTMINING LAND USES

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

Analysis:

The permittee has proposed no changes to the postmining land uses of wildlife habitat and grazing.

Findings:

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

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

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

The revegetation plan in the current mining and reclamation plan is designed for the wildlife and grazing postmining land uses. It complies with regulatory requirements.

Findings:

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

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Permittee met the requirement to restore the site to the approximate original contours. The requirement to achieve the approximate original contour requirements are couched in the reclamation rules.

The main factor for determining if the reclaimed site meets the AOC requirements are:

Final Surface Configuration

The final surface configuration must closely resemble the general surface configuration of the land before mining. The pre-mining and post-mining topography must be similar. The criterion is the reclaimed slope similar to those of the surrounding area. Since the site was disturbed pre-SMCRA detailed pre-mining maps are not available. Therefore, the Division's main concern is with having the reclaimed slope being similar to the surrounding slopes.

Eliminate Spoil Piles

There are no spoil piles associated with the SUFCo Mine.

Eliminate All Highwalls

In Section 5.5.3.1 of the MRP, the Permittee states that they will eliminate all highwalls. While all highwalls will be eliminated some cut slopes will remain. The Division will allow cut slope remnants where total elimination of cut slopes would either result in unstable slopes or block drainages. Also see Appendix 5-2 for a highwall/cutslope studies.

Hydrology

The Division considers that all hydrology issues related to AOC have been addressed if all the hydrology regulations have been adequately addressed.

Post Mining Land Use

The Division considers that the postmining land use meets all of the AOC requirements if all of the postmining land uses regulations have been met.

Findings:

The Permittee met the minimum requirements of this section.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-233, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

Achieve the Approximate Original Contour

Because of overlap all issues relating to restoring the site to the approximate original contours is discussed in the AOC section of the TA.

Eliminate all Highwalls, Spoil Piles and Depressions

The Permittee will eliminate all highwalls during reclamation. See the AOC section of the TA for details. No spoil piles exist at the site. The Permittee will remove all depressions with the exception of pock used to control erosion and enhance vegetation. See Plate 5-3A, Plate 5-3B and Plate 5-4 for details about the backfill and grading plan.

Slope Stability

In Section 5.5.3.1 and Section 5.4.2.2, the Permittee shows that the reclaimed slopes will be stable and have safety factors of 1.3 or greater.

Minimize Erosion and Water Pollution

The Division considers that erosion and water pollution issues have been addressed with respect to backfilling and grading if the hydrology regulations have been addressed.

Postmining Land Use

The Division considers that the postmining land use issues have been addressed with respect to backfilling and grading if the postmining land use regulation have been addressed.

Findings:

The Permittee met the minimum requirements of this section.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The Permittee met the requirements for describing how the mine openings will be sealed. See Section 5.4.2.7 and Section 5.5.1 of the MRP for details.

Findings:

The Permittee met the minimum requirements of this section.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Stored soil from within the mine will be brought to the surface and temporarily stored on the slope while the portal is backfilled from within the mine. Then, the soil will be spread over the surface. This will be accomplished using mining equipment and hand labor. The surface will be left roughened and gouged by hand using rakes and shovels.

Findings:

The information provided meets the regulatory requirements of this section.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534,

-301-537, -301-732.

Analysis:

The Permittee met the requirements for road reclamation. All roads within the disturbed areas will be reclaimed during final reclamation. See Section 5.4.2.6 for details on road reclamation.

Findings:

The Permittee met the minimum requirements of this section.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Surface and Groundwater monitoring.

The permittee has identified a surface and ground water monitoring plan outlined in Tables 7-2 and 7-3.

Discharges into an underground mine.

The permittee plans no discharge of fluids or materials into the mine.

Gravity discharges.

The permittee describes the process for discharging intercepted groundwater. Currently all intercepted in the mine is discharged to the North Fork of Quitchupah Creek via a UPDES permit. The mine currently discharges approximately 3000 gpm . As mining progresses in the Pines and SITLA Muddy Tracts, the intercepted groundwater will also be discharged to the North Fork of Quitchupah Creek.

Sedimentation ponds.

There are no sediment ponds associated with the PTL. Impoundments.

There are no impoundments associated with the PTL. Casing and sealing of wells.

When no longer needed for monitoring or other use designated by UDOGM and upon a finding of no adverse environmental or health and safety effects, or unless approved for transfer as a water well, each well will be capped, sealed, backfilled. Wells will be sealed and backfilled by placing a concrete plug from TD to surface.

Findings:

The permittee has submitted sufficient information to address this section.

CONTEMPORANEOUS RECLAMATION

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

Analysis:

No contemporaneous reclamation is schedule to take place on the PTL. The breakout portal will be recovered after the mine shuts down.

Findings:

The Permittee met the minimum requirements of this section.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

The revegetation plan includes specific mention of the remote portals. These portals would be broadcast seeded with the standard seed mix. Reclaimed slopes in the area of the Muddy Creek Breakout will be protected from erosion by the application of an erosion mat stapled in place. This plan is acceptable.

Findings:

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

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

During operations, soil will be stored within the mine where it will be sheltered from wind and water.

During reclamation, the soil surface will be left rough. The breakout will be hand seeded with the seed mix listed in section 3.4.1.2 of the MRP. Section 3.4.1.2 further indicates that mulch will be applied at 2000 lbs/acre along with 100 lbs of N/ac and 100 lbs of P/ac. Section 2.4.2.1. indicates that organic matting may be used if the slope is thought to be unstable.

Findings:

The information provided meets the regulatory requirements of this section.

CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

Analysis:

The Permittee addressed this in the MRP. If the Permittee were to cease operations, they would notify the Division within 30 days. The Permittee would report the number of surface and underground acres disturbed and the monitoring procedures during temporary cessation.

Findings:

The Permittee met the minimum requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

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

Analysis:

Affected area boundary maps.

The permit area maps and the mine maps show the affected area boundaries. Bonded area map.

The bonded area is the permit area and is shown on several maps. Reclamation backfilling and grading maps.

Reclamation facilities maps.

Analysis:

The Permittee does not proposes to leave any facilities associated with the PTL. Final surface configuration maps.

The Permittee did give the Division the final surface configuration maps for the breakout portal

Findings:

The Permittee met the minimum requirements of this section.

BONDING AND INSURANCE REQUIREMENTS

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

Analysis:

General

The Permittee met the general bonding requirements.

Form of Bond

The Permittee met the requirements for giving the Division a bond in the proper form.

Determination of bond amount.

The Division met the requirements for determining the bond amount. R645-301-830 requires that the Division determine the bond amount with information supplied by the Permittee (R645-301-830.140.) The Division determines the bond amount and that the Permittee posts the required amount.

Findings:

The information provided meets the requirements of the Regulations.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-729.

Analysis:

The MRP meets the requirements of the Cumulative Hydrologic Impact Assessment (CHIA) as provided in R645-301-729. The Division finds that these standards have been met because the hydrologic information provided in the application is adequate to complete the Quitchupah-Muddy Creek CHIA. The Division will update the CHIA by incorporating the addition of the SITLA Muddy Tract.

Findings:

The information provided meets the Cumulative Hydrologic Impact Assessment Information requirements of the State regulations.