CANYON FUEL COMPANY, LLC

DUGOUT CANYON MINE

C/007/039

50 ACRE

PERMIT AREA EXPANSION

ADDITION OF ACREAGE TO FEDERAL LEASE U-07064-027821

March 2012

Incoming
C0070039
#4054
K

Canyon Fuel Company, LLC
Dugout Canyon Mine
P.O. Box 1029
Wellington, Utah 84542

March 14, 2012

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

RE: Addition of 50 Acres to the Permit Boundary, Portions of SW1/4NW1/4 of Section 25 (20 acres), SE1/4NE1/4 of Section 26 (10 acres) and SE1/4SW1/4 of Section 23 (20 acres) Dugout Canyon Mine, Canyon Fuel Company, LLC, C/007/039, Carbon County, Utah

Dear Sirs:

Enclosed please find five copies of a revision to the M&RP to add 50 acres to the permit boundary. The mining of the Gil 4b East and West panels located in portions of the Sections 23, 25 and 26 T13SR12E will be done with continuous miners as development mining. Pillar will remain following the mining of these panels and no subsidence is anticipated following the extraction of coal.

Through a conversation with Daron Haddock his approval was given to submit the drawings in a final format without a redline version. He also approved the submittal of four paper sets of twenty drawings and one CD containing the drawings. This concession was given because of current cost restraints at Dugout. The hope is that the four paper sets of drawings will be approved and can be used as part of the final/clean copy submittal.

If you have any questions please call me at (435) 636-2869.

Sincerely yours,

Vicky S. Miller

Vicky S. Miller

cc: Dave Spillman

File in:
☐ Confidential
☐ Shelf
☒ Expandable
Date Folder 03/15/12 C0070039
Incoming

RECEIVED
MAR 15 2012
DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Canyon Fuel Company, LLC
Mine: Dugout Canyon Mine **Permit Number:** C/007/039
Title: Addition of 50 Acres to Permit Boundary
Description, Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

☒ Yes ☐ No 1. Change in the size of the Permit Area? Acres: 50 Disturbed Area: ____ ☒ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☒ Yes ☐ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☒ Yes ☐ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes ☒ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

David Spillman
Print Name

David Spillman, Engineering Manager 3/14/12
Sign Name, Position, Date

Subscribed and sworn to before me this 1ST day of MARCH, 20 12

Kathleen Widner
Notary Public

My commission Expires: 8-3, 2014

Attest: State of COLORADO } } ss:
County of MESA

KATHLEEN WIDNER
Notary Public
State of Colorado

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
		RECEIVED MAR 15 2012 DIV. OF OIL, GAS & MINING

Form DOGM- C1 (Revised March 12, 2002)

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Canyon Fuel Company, LLC
Mine: Dugout Canyon Mine **Permit Number:** C/007/039
Title: Addition of 50 Acres to Permit Boundary

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☐ Replace	☐ Remove	THIS INFORMATION GOES IN THE M&RP BINDERS
☐ Add	☒ Replace	☐ Remove	Chapter 1, pages 1-7, 1-10 thru 1-13
☒ Add	☐ Replace	☐ Remove	Appendix 1-1, add to the back of existing information
☐ Add	☒ Replace	☐ Remove	Plates 1-1, 1-2 and 1-4
☐ Add	☒ Replace	☐ Remove	Chapter 2, pages 2-2 and 2-4
☐ Add	☒ Replace	☐ Remove	Plate 2-1
☐ Add	☒ Replace	☐ Remove	Chapter 3, pages3-1, 3-20 and 3-25
☐ Add	☒ Replace	☐ Remove	Plates 3-1, 3-1E, 3-2 and 3-3
☐ Add	☒ Replace	☐ Remove	Plate 4-1
☐ Add	☒ Replace	☐ Remove	Chapter 5, pages5-25 and 5-27
☐ Add	☒ Replace	☐ Remove	Plate 5-7
☐ Add	☒ Replace	☐ Remove	Plates 6-1, 6-4, 6-5, 6-6, 6-7,
☐ Add	☒ Replace	☐ Remove	Plates 7-1, 7-2, 7-3 and 7-6
☐ Add	☐ Replace	☐ Remove	THIS INFORMATION GOES IN THE REFUSE PILE BINDERS
☐ Add	☐ Replace	☐ Remove	Refuse Pile Amendment
☐ Add	☒ Replace	☐ Remove	RA Plate 1-1
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

3/14/2012 The Refuse Pile Amendment is a stand alone document, RA Plate 1-1 will be incorporated into the existing binder.

Also in the submittal are pages and plates to be added to the M&RP .

Received by Oil, Gas & Mining

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CHAPTER 1

LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

M&RP

Sections 14 and 15: All

Section 17: NE1/4; E1/2SW1/4; SE1/4

Section 20: E1/2NW1/4; SW1/4NW1/4; N1/2NE1/4

Section 21: N1/2NW1/4; NE1/4

Section 22: N1/2; N1/2S1/2

Section 23: W1/2NW1/4

State Lease ML-42649 - (2212 acres) - Approved

T. 13 S., R. 12 E., SLBM, Utah

Section 3: Lots 1, 2, 3, 4, S1/2 (all)

Section 4: Lots 1, 2, 3, 4, S1/2 (all)

Section 5: Lots 1, 2, SE1/4

Section 9: All

Section 10: N1/2

Section 11: N1/2

Federal Coal Lease U-07064-027821 - (2,953.71 acres) - Approved 1 January 1957, Expanded 2007, Modified 2009

T. 13 S., R. 12 E., SLBM, Utah

Section 13: S1/2

Section 23: E1/2E1/2, W1/2SE1/4, NE1/4SW1/4, E1/2SE1/4SW1/4

Section 24: All

Section 25: N1/2N1/2, N1/2SW1/4NW1/4

Section 26: N1/2NE1/4, NE1/4SE1/4NE1/4

T. 13 S., R. 13 E., SLBM, Utah

Section 17: S1/2N1/2, S1/2

Section 18: Lots 2, 3, 4, E1/2SW1/4; SE1/4, S1/2NE1/4, SE1/4NW1/4

Section 19: Lots 1-4, E1/2W1/2, NE1/4, NW1/4SE1/4

Section 21: NW1/4NW1/4

The permit boundary encompasses approximately 9,751 acres which includes the acreage as presented in the table below, also refer to Plate 1-1 and RA Plate 1-1 for additional information.

Coal ownership acreage within the permit area includes approximately ~~3084~~ 3134 acres of federal coal, approximately 5840 acres of state coal, and 827 acres of fee coal as shown in the table below (Plate 1-2 and RA1-1B). Approximately 745 acres which include the surface subsidence area, refuse pile and leach field areas will not be mined although their acreage is included in the surface and coal ownership acreage totals.

Acreage Table
(all acreage is approximate)

Disturbed Area	Acreage	**Surface Ownership**	Acreage	**Coal Ownership**	Acreage
Dugout Cyn. Facility	20.8	Federal	~~597~~ 627	Federal	~~3084~~ 3134
Degas (3/24/10)	41.5	State of Utah	920	State	5840
AMV Road	14.25	Fee	823~~4~~54	Fee	827
Topsoil Stockpile	0.85				
Leachfield	1.8				
Fan Portal	2.7				
Refuse Pile	26.8				
Total	108.7		~~9751~~9801		~~9751~~9801
Acres of Land Within Permit Area under Lease and Fee Lands					
State Leases	Acres	Federal Leases	Acres	BLM	Acres
ML-42648	3160	U-07064-027821	~~2903.71~~ 2953.71	ROW UTU-76601	10
ML-42649	80			ROW UTU-77985	47.5
ML-48435-OBA	2720			Parcel	2.5
ML-50582-OBA	0	**Fee Acreage**	827		

Total (Rounded)	5960		~~3731~~ 3781		60
Approximate Total Acreage within Permit Area			**5960+37~~8~~81+60 = ~~9751~~** 9801		

A legal description of the permit boundary includes:

Section 23: E1/2E1/2, W1/2SE1/4, NE1/4SW1/4,

Section 24: All

Section 25: N1/2N1/2,

Section 26: N1/2NE1/4,

T. 13 S., R. 12 E., SLBM, Utah

Section 9: S1/2SE1/4

Section 10: S1/2

Section 11: S1/2

Section 13: All except N1/2N1/2

Section 14: All

Section 15: All

Section 16: All

Section 17: E1/2SW1/4; SE1/4

Section 20: E1/2NW1/4; SW1/4NW1/4; N1/2NE1/4

Section 21: N1/2NW1/4; NE1/4

Section 22: N1/2; N1/2S1/2; Portion of N1/2NE1/4SE1/4SE1/4;
Portion of SW1/4NE1/4SE1/4SE1/4;
Portion of the S1/2NW1/4SE1/4SE1/4;
Portion of SW1/4NE1/4SW1/4SE1/4;
Portion of N1/2SE1/4SW1/4SE1/4;
Portion of NE1/4SW1/4SW1/4SE1/4;
Portion of S1/2SW1/4SW1/4SE1/4

Section 23: NW1/4; NE1/4; SE1/4; NE1/4SW1/4; NW1/4NW1/4SW1/4;
S1/2NE1/4NW1/4SW1/4;NW1/4SW1/4NW1/4SW1/4,

	E1/2SE1/4SW1/4
Section 24:	All
Section 25:	N1/2N1/2, N1/2SW1/4NW1/4
Section 26:	N1/2NE1/4, NE1/4SE1/4NE1/4
Section 27:	Portion of W1/2NW1/4NW1/4NE1/4
	Portion of SW1/4NE1/4NE1/4NW1/4
	Portion of E1/2SW1/4NE1/4NW1/4
	Portion of SW1/4SW1/4NE1/4NW1/4

T. 13 S., R. 13 E., SLBM, Utah

Section 17	All except N1/2N1/2
Section 18	All except N1/2N1/2
Section 19	All
Section 20	All
Section 21	SW1/4; SW1/4NW1/4; NW1/4NW1/4
Section 28	NW1/4; N1/2SW1/4; SW1/4SW1/4
Section 29	All
Section 30	NW1/4NW1/4; E1/2; E1/2W1/2

T. 14 S., R. 12 E., SLBM, Utah

Section 18	Portion N1/2NE1/4

Topsoil is being stored in T14S, R12E, Section 8, a storage area permitted to Soldier Canyon Mine. See Chapter 2 for additional details concerning the topsoil storage.

As clarification, in 2007 acreage (487.57 acres) was added to existing Federal Coal Lease U-07064-027821, two hundred and forty-seven acres of this added acreage is already included as part of the Dugout permitted area. Acreage was previously added to the permit area in excess of the Federal leased acreage to act as a subsidence buffer zone (207.57 acres) and to accommodate a revised mine plan (40 acres). In addition, State Lease ML-50582-OBA (320 acres, more or less) was issued to Dugout Canyon Mine in 2007. Future surface disturbance of these leases will be permitted as needed to facilitate mining activities. The subsidence buffer zone acreage was added in T13S, R12E Section 13 and T13S, R13E Sections 17 and 18. The acreage added in T13S, R13E Sections 17 and 18 is now part of Federal Coal Lease U-07064-027821. Fifty

acres were added to the permit boundary in 2012, this acres included 20 acres in Section 23, 20 acres in Section 25 and 10 acres in Section 26, T13S, R 12E (Federal Coal Lease U-07064-027821).

The refuse pile is located on property owned by Canyon Fuel Company, LLC. The property is located approximately 6.5 miles southwest of the Dugout Canyon Mine in portions of the NE1/4, SW 1/4 and SE 1/4 of the NE 1/4, in a portion of the NW 1/4 of the SE1/4, and in the NW1/4 of the NE 1/4 of Section 18, Township 14 South, Range 12 East, Salt Lake Base Meridian.

BLM Right-of-Way UTU-77985 grants the right-of-entry for the leach field and associated pipeline. Refer to the right-of-way description above.

115 Status of Unsuitability Claims

To the best knowledge of Canyon Fuel Company, LLC, no portion of the area to be permitted is designated, or under study for being designated, unsuitable for mining.

CFC does not propose to conduct coal mining or reclamation operations within 300 feet of any occupied dwelling. A description of operations to be conducted within 100 feet of a public road is provided in Chapter 5 of this M&RP, together with a discussion of plans to protect the interests of the public.

116 Permit Term

The anticipated mining progression during operation of the Dugout Canyon Mine is outlined on Plate 5-7. Rates of production for the permit term are presented in Section 523. Reclamation operations are discussed in Chapters 2, 3, 5, 7, and 8.

117 Insurance, Proof of Publication, and Facilities and Structures Used in Common

APPENDIX 1-1

Coal Lease Documents

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov

IN REPLY REFER TO:
3432
UTU-07064-027821
(UT-923)

JUN 25 2009

CERTIFIED MAIL- Return Receipt Requested

DECISION

Canyon Fuel Company, LLC	:	
c/o Ark Land Company	:	
Attn: David J. Finnerty	:	Coal Lease
Director – Land Management	:	UTU-07064-027821
City Place One, Suite 300	:	
St. Louis, MO 63141	:	

Coal Lease UTU-07064-027821 Modified
Extension of Coverage of Surety Bond Accepted

Enclosed is a copy of modified coal lease UTU-07064-027821 effective on July 1, 2009. The terms and conditions of the original lease are made consistent with the laws, regulations, and lease terms applicable at the time of this modification. The anniversary date of the coal lease remains January 1, 1957.

On June 25, 2009 a surety rider submitted by Tara Mealer, an Attorney-in-Fact for the Safeco Insurance Company of America agreed to extend the coverage of the $2,076,000 lease bond to the additional modified acreage. This rider is acceptable to extend that coverage and is accepted as of the date of filing.

Please note that rental in the amount of $3.00 per acre, or fraction thereof, or a total of $8,862 is due on the next anniversary date, beginning with January 1, 2010.

J. D. McKenzie
Chief, Branch of
Solid Minerals

Enclosures:
Modified Coal Lease (9 pp.)

cc: Price Coal Office
Mr. John Baza, Director, UDOGM, Box 145801, Salt Lake City, Utah 84114-5801
MMS, Solid Minerals Staff, MS 390B2, Box 25165, Denver, CO 80225

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Serial No.___UTU-07064-027821_

MODIFIED COAL LEASE

Date of Lease_January 1, 1957___

PART I.

THIS MODIFIED COAL LEASE is entered into on __July 1, 2009_____, by and between the **UNITED STATES OF AMERICA**, hereinafter called the Lessor, through the Bureau of Land Management, and

Canyon Fuel Company LLC
c/o Ark Land Company
City Place One, Suite 300
St. Louis, MO 63141

hereinafter called Lessee.

This modified lease shall retain the effective date of January 1, 1957 , of the original **COAL LEASE UTU- 07064-027821**, and is effective for a period of 10 years from the date of the last lease readjustment, dated January 1, 2007 and for so long thereafter as coal is produced in commercial quantities from the leased lands, subject to readjustment of lease terms at the end of each 10 year lease period thereafter.

Sec. 1. This lease is issued pursuant and subject to the terms and provisions of the: (NOTE: Check the appropriate Act or Acts.)

XX Mineral Lands Leasing Act of 1920, as amended, 41 Stat. 437, 30 U.S.C. 181-287, hereinafter referred to as the Act;

_ Mineral Leasing Act for Acquired Lands of 1947, 61 Stat. 913, 30 U.S.C. 351-359;

and to the regulations and formal orders of the Secretary of the Interior which are now or hereafter in force, when not inconsistent with the express and specific provisions herein.

Sec. 2. Lessee as the holder of Coal Lease UTU- 07064-027821, issued effective January 1, 1957 , was granted the exclusive right and privilege to drill for, mine, extract, remove or otherwise process and dispose of the coal deposits in, upon, or under the lands described below as Tract 1 and Tract 2.

The Lessor in consideration of fair market value, rents and royalties to be paid, and the conditions and covenants to be observed as herein set forth, hereby grants and leases to Lessee the exclusive right and privilege to drill for, mine, extract, remove, or otherwise process and dispose of the coal deposits in, upon, or under the lands described below as Tract 3.

Tract 1:
T. 13 S., R. 12 E., SLM, Utah
Sec. 13, S½,
Sec. 23, E½E½, NE¼SW¼, W½SE¼;
Sec. 24, all;
Sec. 25, N½N½;
Sec. 26, N½ NE¼.

T. 13 S. R. 13 E., SLM, Utah
Sec. 18, lots 3 and 4, E½SW¼, SE¼;
Sec. 19, lots 1-4, E½W½, NE¼, NW¼SE¼;
Sec. 30, lot 1.

Tract 2:
T. 13 S., R. 13 E., SLM, Utah
Sec. 17, S½N½, N½SE¼, SE¼SE¼;
Sec. 18, lot 2, S½NE¼, SE¼ NW¼;
Sec. 21, NW¼NW¼.

Tract 3:
T. 13 S., R. 12 E., SLM, Utah
Sec. 23, E½SE¼SW¼;
Sec. 25, N½SW¼NW¼;
Sec. 26, NE¼SE¼NE¼.

containing 2,953.71 acres, more or less, together with the right to construct such works, buildings, plants, structures, equipment and appliances and the right to use such on-lease rights-of-way which may be necessary and convenient in the exercise of the rights and privileges granted, subject to the conditions herein provided.

Part II. TERMS AND CONDITIONS

Sec. 1.(a) RENTAL RATE - Lessee shall pay Lessor rental annually and in advance for each acre or fraction thereof during the continuance of the lease at the rate of $3.00 per acre for each lease year.

(b) RENTAL CREDITS - Rental shall not be credited against either production or advance royalties for any year.

Sec. 2.(a) PRODUCTION ROYALTIES - The royalty shall be 8 percent of the value of the coal as set forth in the regulations. Royalties are due to Lessor the final day of the month succeeding the calendar month in which the royalty obligation accrues.

(b) ADVANCE ROYALTIES - Upon request by the Lessee, the authorized officer may accept, for a total of not more than 20* years, the payment of advance royalties in lieu of continued operation, consistent with the regulations. The advance royalty shall be based on a percent of the value of a minimum number of tons determined in the manner established by the advance royalty regulations in effect at the time the Lessee requests approval to pay advance royalties in lieu of continued operation.

* 20 years (Public Law 109-58)

Sec. 3. BONDS - Lessee shall maintain in the proper office a lease bond in the amount of $2,076,000. The authorized officer may require an increase in this amount when additional coverage is determined appropriate.

Sec. 4. DILIGENCE - This lease achieved diligent development February 1, 2003, and is subject to the conditions of continued operation. Continued operation may be excused when operations under the lease are interrupted by strikes, the elements, or casualties not attributable to the Lessee. The Lessor, in the public interest, may suspend the condition of continued operation upon payment of advance royalties in accordance with the regulations in existence at the time of the suspension.

The Lessor reserves the power to assent to or order the suspension of the terms and conditions of this lease in accordance with, inter alia, Section 39 of the Mineral Leasing Act, 30 U.S.C. 209.

Sec. 5. **LOGICAL MINING UNIT (LMU)** – Either upon approval by the Lessor of the Lessee's application or at the direction of the Lessor, this lease shall become an LMU or part of an LMU, subject to the provisions set forth in the regulations.

The stipulations established in an LMU approval in effect at the time of LMU approval or modification will supersede the relevant inconsistent terms of this lease so long as the lease remains committed to the LMU. If the LMU of which this lease is a part is dissolved, the lease shall then be subject to the lease terms which would have been applied if the lease had not been included in an LMU.

This lease was placed in the Soldier Creek LMU effective March 1, 1996.

Sec. 6. DOCUMENTS, EVIDENCE AND INSPECTION - At such times and in such form as Lessor may prescribe, Lessee shall furnish detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amount used for production purposes or unavoidably lost.

Lessee shall keep open at all reasonable times for the inspection of any duly authorized officer of Lessor, the leased premises and all surface and underground improvements, works, machinery, ore stockpiles, equipment, and all books, accounts, maps, and records relative to operations, surveys, or investigations on or under the leased lands.

Lessee shall allow Lessor access to and copying of documents reasonably necessary to verify Lessee compliance with terms and conditions of the lease.

While this lease remains in effect, information obtained under this section shall be closed to inspection by the public in accordance with the Freedom of Information Action (5 U.S.C. 552).

Sec. 7. DAMAGES TO PROPERTY AND CONDUCT OF OPERATIONS - Lessee shall comply at its own expense with all reasonable orders of the Secretary, respecting diligent operations, prevention of waste, and protection of other resources.

Lessee shall not conduct exploration operations, other than casual use, without an approved exploration plan. All exploration plans prior to the commencement of mining operations within an approved mining permit area shall be submitted to the authorized officer.

Lessee shall carry on all operations in accordance with approved methods and practices as provided in

the operating regulations, having due regard for the prevention of injury to life, health, or property, and prevention of waste, damage or degradation any land, air, water, cultural, biological, visual, and other resources, including mineral deposits and formations of mineral deposits not leased hereunder, and to other land uses or users. Lessee shall take measures deemed necessary by Lessor to accomplish the intent of this lease term. Such measures may include, but not limited to, modification to proposed siting or design of facilities, timing of operations, and specifications of interim and final reclamation procedures. Lessor reserves to itself the right to lease, sell, or otherwise dispose of the surface or other mineral deposits in the lands and the right to continue existing uses and to authorize future uses upon or in the leased lands, including issuing leases for mineral deposits not covered hereunder and approving easements or rights-of-way. Lessor shall condition such uses to prevent unnecessary or unreasonable interference with rights of Lessee as may be consistent with concepts of multiple use and multiple mineral development.

Sec. 8 **PROTECTION OF DIVERSE INTERESTS, AND EQUAL OPPORTUNITY** - Lessee shall: pay when due all taxes legally assessed and levied under the laws of the State or the United States; accord all employees complete freedom of purchase; pay all wages at least twice each month in lawful money of the United States; maintain a safe working environment in accordance with standard industry practices; restrict the workday to not more than 8 hours in any one day for underground workers, except in emergences; and take measures necessary to protect the health and safety of the public. No person under the age of 16 years shall be employed in any mine below the surface. To the extent that laws of the State in which the lands are situated are more restrictive than the provisions in this paragraph, then the State laws apply.

Lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and the rules, regulations, and relevant orders of the Secretary of Labor. Neither Lessee nor Lessee's subcontractors shall maintain segregated facilities.

Sec. 9.(a) **TRANSFERS**
(Check the appropriate space)

X This lease may be transferred in whole or in part to any person, association or corporation qualified to hold such lease interest.

___ This lease may be transferred in whole or in part to another public body, or to a person who will mine the coal on behalf of, and for the use of, the public body or to a person who for the limited purpose of creating a security interest in favor of a lender agrees to be obligated to mine the coal on behalf of the public body.

___ This lease may only be transferred in whole or in part to another small business qualified under 13 CFR 121.

Transfers of record title, working or royalty interest must be approved in accordance with the regulations.

(b) **RELINQUISHMENTS** - The Lessee may relinquish in writing at any time all rights under this lease or any portion thereof as provided in the regulations. Upon Lessor's acceptance of the relinquishment, Lessee shall be relieved of all future obligations under the lease or the relinquished portion thereof, whichever is applicable.

Sec. 10. **DELIVERY OF PREMISES, REMOVAL OF MACHINERY, EQUIPMENT, ETC.** - At such times as all portions of this lease are returned to Lessor, Lessee shall deliver up to Lessor the land leased, underground timbering, and such other supports and structures necessary for the preservation of the mine workings on the leased premises or deposits and place all workings in condition for suspension or abandonment. Within 180 days thereof, Lessee shall remove from the premises all other structures, machinery, equipment, tools, and materials that it elects to or as required by the authorized officer. Any such structures, machinery, equipment, tools, and materials remaining on the leased lands beyond 180 days, or approved extension thereof, shall become the property of the Lessor, but Lessee shall either remove any or all such property or shall continue to be liable for the cost of removal and disposal in the amount actually incurred by the Lessor. If the surface is owned by third parties, Lessor shall waive the requirement for removal, provided the third parties do not object to such waiver. Lessee shall, prior to the termination of bond liability or at any other time when required and in accordance with all applicable laws and regulations, reclaim all lands the surface of which has been disturbed, dispose of all debris or solid waste, repair the offsite and onsite damage caused by Lessee's activity or activities incidental thereto, and reclaim access roads or trails.

Sec. 11. **PROCEEDINGS IN CASE OF DEFAULT** - If Lessee fails to comply with applicable laws, existing regulations, or the terms, conditions and stipulations of this lease, and the noncompliance continues for 30 days after written notice thereof, this lease shall be

subject to cancellation by the Lessor only by judicial proceedings. This provision shall not be construed to prevent the exercise by Lessor of any other legal and equitable remedy, including waiver of the default. Any such remedy or waiver shall not prevent later cancellation for the same default occurring at any other time.

Sec. 12. **HEIRS AND SUCCESSORS - IN-INTEREST** - Each obligation of this lease shall extend to and be binding upon, and every benefit hereof shall insure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 13. **INDEMNIFICATION** - Lessee shall indemnify and hold harmless the United States from any and all claims arising out of the Lessee's activities and operations under this lease.

Sec. 14. **SPECIAL STATUTES** - This lease is subject to the Federal Water Pollution Control Act (33 U.S.C. 1151 - 1175); the Clean Air Act (42 U.S.C. 1857 et seq.), and to all other applicable laws pertaining to exploration activities, mining operations and reclamation, including the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.)

Sec. 15. **SPECIAL STIPULATIONS** -

SEE ATTACHED STIPULATIONS

CANYON FUEL COMPANY LLC Company or Lessee Name	The United States of America BY J. P. McKenzie
[illegible] (Signature of Lessee)	[illegible] (Signing Officer)
PRESIDENT (Title)	Acting Branch Chief Solid Minerals (Title)
JUNE 24, 2009 (Date)	25 June 2009 (Date)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

SPECIAL STIPULATIONS FOR UTU-07064-027821
MODIFIED COAL LEASE

1. In accordance with Sec. 523(b) of the "Surface Mining Control and Reclamation Act of 1977," surface mining and reclamation operations conducted on this lease are to conform with the requirements f this act and are subject to compliance with Office of Surface Mining regulations, or as applicable the Utah program approved under the cooperative agreemne6t in accordance with sec. 523(c). The United States Government does not warrant that the entire tract will be susceptible to mining.

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

If cultural resources or paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the lessee prior to disturbance shall, immediately bring them to the attention of the Authorized Officer. Paleontological remains of significant scientific interest do not include leaves, ferns, or dinosaur tracks commonly encountered during underground mining operations.

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

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

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

4. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the lessee may be required to conduct a paleontological appraisal of the areas to be disturbed. The appraisal shall be conducted by a qualified paleontologist and a report prepared itemizing the findings.

A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for identified paleontological resources.

If paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the lessee shall immediately bring them to the attention of the authorized officer who shall evaluate, or have evaluated such discoveries and, within 5 working days, shall notify the lessee what action shall be taken with respect to such discoveries. Paleontological remains of significant scientific interest do not include leaves, ferns, or dinosaur tracts commonly encountered during underground mining.

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

5. The Lessee shall be required to perform a study to secure adequate baseline data to quantify the existing

surface resources on and adjacent to the lease area. Existing data may be used if such data are adequate for the intended purposes. The study shall be adequate to locate, quantify, and demonstrate the interrelationship of the geology, topography, surface and ground water hydrology, vegetation and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

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

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

8. The lessee shall be required to establish a monitoring system to locate, measure, and quantify the progressive and final effects of underground mining activities on the topographic surface, underground and surface hydrology and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method for location and measurement of a number of points over the lease area. The monitoring shall incorporate and be an extension of the baseline data. The monitoring system shall be adequate to locate and quantify, and demonstrate the inter-relationship of the geology, topography, surface hydrology, vegetation and wildlife.

9. Except at locations specifically approved by the Authorized Officer with concurrence of the surface management agency, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to existing surface structures, and (3) damage or alter the flow of perennial streams. The lessee shall provide specific measures for the protection of escarpments, and determine corrective measures to assure that hazardous conditions are not created.

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

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

12. The Lessee at the conclusion of the mining operation, or at other times as surface disturbance related to mining may occur, will replace all damaged, disturbed, or displaced corner monuments (section corners, quarter corners, etc.) their accessories and appendages (witness trees, bearing trees, etc.), or restore them to their original condition and location, or at other locations that meet the requirements of the rectangular surveying system. This work shall be conducted at the expense of the Lessee, by BLM to the standards and guidelines found in the Manual of Surveying Instructions, U.S. Department of Interior.

13. Notwithstanding the approval of a resource recovery and protection plan by the BLM, lessor reserves the right to seek damages against the operator/lessee in the event (I) the operator/lessee fails to achieve maximum economic recovery [as defined at 43 CFR §3480.0-5(21)] of the recoverable coal reserves or (ii) the operator/lessee is determined to have caused a wasting of recoverable coal reserves. Damages shall be measured on the basis of the royalty that would have been payable on the wasted or un-recovered coal.

The parties recognize that under an approved R2P2, conditions may require a modification by the operator/lessee of that plan. In the event a coal bed or portion thereof is not to be mined or is rendered unminable by the operation, the operator shall submit appropriate justification to obtain approval by the AO to leave such reserves unmined. Upon approval by the AO, such coal beds or portions thereof shall not be subject to damages as described above. Further, nothing in this section shall prevent the operator/lessee from exercising its right to relinquish all or a portion of the lease as authorized by statute and regulation.

In the event the AO determines that the R2P2 modification will not attain MER resulting from changed conditions, the AO will give proper notice to the operator/lessee as required under applicable regulations. The AO will order a new R2P2 modification if necessary, identifying additional reserves to be mined in order to attain MER. Upon a final administrative or judicial ruling upholding such an ordered modification, any reserves left un-mined (wasted) under that plan will be subject to damages as described in the first paragraph under this section.

Subject to the right to appeal hereinafter set forth, payment of the value of the royalty on such un-mined recoverable coal reserves shall become due and payable upon determination by the AO that the coal reserves have been rendered un-minable or at such time that the lessee has demonstrated an unwillingness to extract the coal.

The BLM may enforce this provision either by issuing a written decision requiring payment of the MMS demand for such royalties, or by issuing a notice of non-compliance. A decision or notice of non-compliance issued by the lessor that payment is due under this stipulation is appealable as allowed by law.

14. WASTE CERTIFICATION: The lessee shall provide upon abandonment and/or sealing off a mined area and prior to lease termination/relinquishment, certification to the lessor that, based upon a complete search of all the operator's records for the mine and upon their knowledge of past operations, there has been no **hazardous substances** per (40 CFR 302.4) or **used oil** as per Utah State Management Rule R-315-15, deposited within the lease, either on the surface or underground, or that all remedial action necessary has been taken to protect human health and the environment with respect to any such substances remaining on the property. The back-up documentation to be provided shall be described by the lessor prior to the first certification and shall include all documentation applicable to the Emergency Planning and Community Right-to-know Act (EPCRA, Public Law 99-499), Title III of the Superfund Amendments and Reauthorization Act of 1986 or equivalent.

15. ABANDONMENT OF EQUIPMENT: The lessee/operator is responsible for compliance with reporting regarding toxic and hazardous material and substances under Federal Law and all associated amendments and regulations for the handling such materials on the land surface and in underground mine workings.

The lessee/operator must remove mine equipment and materials not needed for continued operations, roof support and mine safety from underground workings prior to abandonment of mine sections. Exceptions can be approved by the Authorized Officer (BLM) in consultation with the surface management agency. Creation of a situation that would prevent removal of such material and by retreat or abandonment of mine sections without prior authorization would be considered noncompliance with lease terms and conditions and subject to appropriate penalties under the lease.

16. UNDERGROUND INSPECTION: All safe and accessible areas shall be inspected prior to being sealed. The lessee shall notify the Authorized Officer in writing 30 days prior to the sealing of any areas in the mine and state the reason for closure. Prior to seals being put into place, the lessee shall inspect the area and document any equipment/machinery, hazardous substances, and used oil that is to be left underground.

The purpose of this inspection will be: (1) to provide documentation for compliance with 42 U.S.C. 9620 section 120(h) and State Management Rule R-315-15, and to assure that certification will be meaningful at the time of lease relinquishment, (2) to document the inspection with a mine map showing location of equipment/machinery (model, type of fluid, amount remaining, batteries etc.) that is proposed to be left underground. In addition, these items will be photographed at the lessee's expense and shall be submitted to the Authorized Officer as part of the certification. The abandonment of any equipment/machinery shall be on a case by case basis and shall not be accomplished unless the Authorized Officer has granted a written approval.

17. GOB VENT BOREHOLES. The Lessee shall submit a gob vent borehole plan for approval by the AO as part of an R2P2 for all gob vent boreholes. The plugging portion of the plan must meet 43 CFR 3484.1(a)(3) as a minimum. If variations to the approved plugging procedures are necessary, they shall also be approved by the AO in writing prior to implementation of the procedures.

18. FAIR MARKET VALUE BONUS: Due to the uncertainty of the amount of recoverable coal reserves in this modification, the lessee will pay the fair market value (FMV) bonus payment for the coal resources mined in the area of Federal coal lease modification (U07064-027821) Tract 2, at the rate of $0.20 per ton for the actual tonnage mined. Payment of FMV at the specified rate and tonnage mined will be on the schedule required for payment of production royalties to the Minerals Management Service (MMS). The lessee will clearly indicate which portion of the payment is for royalty and what is for the lease bonus payment.

19. FAIR MARKET VALUE BONUS: Due to the uncertainty of the amount of recoverable coal reserves in this modification, the lessee will pay the fair market value (FMV) bonus payment for the coal resources mined in the area of Federal coal lease modification (U07064-027821) Tract 3, at the rate of $0.35 per ton for the actual tonnage mined , adjusted annually using the U. S. Bureau of Labor Statistics CPI West Urban Energy Index; or if that index is not available an index that is mutually agreed to by the lessee and the authorized officer will be used. Payment of FMV at the specified rate and tonnage mined will be on the schedule required for payment of production royalties to the Minerals Management Service (MMS). The lessee will clearly indicate which portion of the payment is for royalty and what is for the lease bonus payment.

CHAPTER 2

SOILS

M&RP

This chapter provides a description of the pre-mining resources as specified under R645-301-221. Topsoil and subsoil to be saved under R645-301-232 will be removed and segregated from other material. After removal, topsoil will be immediately redistributed in accordance with R645-301-242, stockpiled pending redistribution under R645-301-234, or if demonstrated that an alternative procedure will provide equal or more protection for the topsoil, the Applicant will seek approval from the Division.

In 2007 acreage (487.57 acres) was added to existing Federal Coal Lease U-07064-027821, two hundred and forty-seven acres of this added acreage is already included as part of the Dugout permitted area. Acreage was previously added to the permit area in excess of the Federal lease acreage to act as a subsidence buffer zone (207.57 acres) and to accommodate a revised mine plan (40 acres). In 2012, acreage was added to Federal Coal Lease U-07064-027821 in Sections 23, 25, and 26 of T13SR12E totally 50 acres more or less. In addition, State Lease ML-50582-OBA (320 acres, more or less) was issued to Dugout Canyon Mine in 2007. Future surface disturbance of these leases will be permitted as needed, the disturbance may included degas and exploration well pads, etc. Refer to Plate 1-2 for the location of the acreage incorporated into the permit boundary.

220 ENVIRONMENTAL DESCRIPTION

The Dugout Canyon Mine facilities are located in the northern Book Cliffs - Roan Plateau region. More specifically, the mine is located within Dugout Canyon and Pace Canyon. The majority of the disturbed area is located in Dugout Canyon, with fan portal facilities located in Pace Canyon (Plate 2-1 and PC5-2). The elevation of the disturbed area ranges between approximately 7000 and 7150 feet above MSL. Soils in the mine area are not cultivated due to their thin nature and relatively steep slopes on which they lie. These soils have formed in colluvium derived from sandstone and shale. Soils in the area are usually shallow and consist predominantly of stony to gravelly sandy loams with moderate permeability. The soils are highly susceptible to water erosion. Rock outcrops consist of alternating layers of sandstone and shale. Subordinate amounts of coal are also present.

The Pace Canyon Fan Portal Breakout is located in Pace Canyon (T13S. R13E, Section 30, N1/2NW14). The elevation of the disturbed area ranges between approximately 6950 and 7060 feet above MSL. Soils in the mine area are not cultivated due to their thin nature and relatively

222 Soil Survey

Soil survey information for those portions of the permit area to be affected by surface operations at the Dugout Canyon Mine is presented in Sections 222.100 through 222.300.

222.100 Soils Map

A map delineating the areal extent of the endemic soils resources within the permit area at an Order III survey level is presented on Plate 2-1. A description of these soils has been reproduced from the SCS "Soil Survey of the Carbon County Area" (Jensen, 1988), and has been included as Appendix 2-2. An Order I soil survey was conducted of the Dugout Canyon Mine disturbed area in October and November 1995. Plate 2-2 illustrates the areal extent of the soils studied as part of the Order I soil survey, the location of the soil test pits excavated during the survey, and the extent of the identified soils.

Dan Larsen , Soil Scientist performed a survey of the Fan Portal area in 2003 and 2004. The 2003 survey was done in conjunction with a BLM environmental assessment for coal exploration holes. The 2004 survey was done on November 5, in conjunction with the proposed installation of the fan. A copy of the 2004 survey, test pit logs and a map showing the location of 2003 -2004 test pit locations is in Appendix 2-3.

The expansion of the permit area in 2007 to add acreage to Federal Coal Lease U-07064-027821 (40 acres, NW1/4NW1/4, Section 21, Township 13S, Range 13E) will include soils mapped as Units 62, 97, and 100 (see Plate 2-1). Area added in 2007 to Sections 16, 17 and 18, T13S R13E under leases U-07064-027821 and ML-50582-OBA will include soils mapped as Units 7, 62, 97, 100, and 101 (see Plate 2-1). The expansion of the permit area in 2012 of 50 acres (Township 13S, Range 12E) will include soils mapped as Units 75, 96 and 103 (see Plate 2-1). Surface disturbance will be permitted as needed to facilitate mining activities.

222.200 Soil Identification

CHAPTER 3

BIOLOGY

M&RP

CHAPTER 3
BIOLOGY

310 INTRODUCTION

This chapter presents a description of the biological resources found on the Dugout Canyon permit and adjacent areas. Additional information can be found in the following amendments: Methane Degassification Amendment (August 2003), Refuse Pile Amendment (February 2003), and the Leachfield Addendum A-1 (March 2001). The remainder of the State Lease ML-48435-OBA (SITLA Lease) was incorporated into the Dugout Canyon Mine permit area in 2005. Future surface disturbance of these leases will be permitted as needed to facilitate mining activities. (This sentence was previously approved in the paragraph below but moved with this submittal)

As clarification, in 2007 acreage (487.57 acres) was added to existing Federal Coal Lease U-07064-027821, two hundred and forty-seven acres of this added acreage is already included as part of the Dugout permitted area. Acreage was previously added to the permit area in excess of the Federal leased acreage to act as a subsidence buffer zone (207.57 acres) and to accommodate a revised mine plan (40 acres). In addition, State Lease ML-50582-OBA (320 acres, more or less) was issued to Dugout Canyon Mine in 2007. In 2012, acreage totally 50 acres was added to the permit boundary from Federal Coal Lease U-07064-027821 in Sections 23, 25, and 26 of T13SR12E. Refer to Plate 1-2 for the location of the acreage incorporated into the permit boundary and Chapter 1, Section 114 for the legal description of the permit area.

The data used in preparation of this chapter have been gathered from the Sage Point-Dugout Canyon Mining and Reclamation Plan, Soldier Creek Coal Company Mining and Reclamation Plan, Environmental Research and Technology, Inc., Utah Division of Wildlife Resource (UDWR), Utah State Fish and Game, Eureka Energy Company (Nicolas Temnikov and Christopher A. Slaboszewicz), Soil Survey of Carbon Area, Utah, aerial photography, and Natural Gas Corporation of California.

The Following are **Not Applicable**: Spring and Seeps Effects From Subsidence, Alluvial Aquifer Abstractions into Mines, Alluvial Well Pumpage, Deep Aquifer Pumpage, Postmining Inflow to Workings and Direct Diversions.

~~Should it be determined~~ In 2008 as defined by United States Fish and Wildlife Service's (USFWS) protocol ~~that~~ a fee ~~is warranted~~ for the consumption of water as calculated above by Dugout Canyon Mine, ~~the permittee will comply with the payment of the fee.~~ was paid to USFWS.

Pace Canyon

"In accordance with the United States Fish and Wildlife Service's (USFWS) protocols, and inventory for the presence of threatened, endangered, and sensitive fauna and floral species was conducted on August 13, 14, and September 29, 2003. Loggerhead, shrike, burrowing owl, Northern Goshaw, Despain foot cactus, Wright fishhook cactus and Creutzfeldt crypthantha and neo-tropical migratory birds were the sensitive species of concern within the area. A thorough search of all seven well sites and associated access roads did not reveal the presence of these species (BLM, Environmental Assessment, UT-070-2003-55)." A map of the area inventoried is provided in Appendix 3-4 within the referenced environmental assessment , it should be noted that the area covered by the aforementioned environmental assessment is the same area proposed for the construction of the Pace Canyon fan facilities. In addition a sensitive plant species survey was conducted by Mt. Nebo in August 2003. To initiate the study, appropriate agencies were consulted (e.g. Utah Natural Heritage Program) and other sources were reviewed for potential plant species that are know to be rare, endemic, threatened, endangered or otherwise sensitive in the area of study. The only plant identified was canyon sweetvetch. No rare, endemic, threatened, endangered or otherwise sensitive species were found in the area proposed for disturbance.

Federal Coal Lease U-07064-027821 and State Lease ML-50582-OBA

On January 19, 2007 Division of Wildlife Resources (DWR) personnel were contacted concerning the addition of approximately 600 acres to the permit area of the Dugout Canyon Mine. Dugout

the permittee's knowledge and understanding the 40 acre permit area expansion does not require a bat survey.

During June of 2005 the bat survey performed by JBR consultants, Pace Creek was surveyed. Site/stop #7 was in the S1/2SW1/4 of Section 21, Appendix 3-3 of M&RP, Figure 1, this stop was the closest to the proposed 40 acres. In the summary of the report it states "the nearly constant bat activity at the Stop #7 pond suggests that this water feature is an important resource for bats in terms of both water and feeding." The pond will not be effected by the mining proposed in the NW1/4NW1/4 Section 21, Township 13S, Range 13 East, (40 Acre addition to Federal Coal Lease U-07064-027821), but according to the JBR consultants is likely the water source used by the bats in the area.

In 2012 an addition 50 acres was added to the permit boundary from Federal Coal Lease U-07064-027821. One active raptor nest and two tended nests were located in Section 25, T13S R12E during a 1998 survey. These nests were determined to be inactive in the subsequent raptor surveys performed by the DWR from 1999 through 2001. During the surveys in 2002 through 2006 one nest could not be located, one continued to be inactive and one was considered dilapidated therefore the DWR deemed it unnecessary to survey the area of the nests after 2006.

Replacement

Since water and its corresponding vegetation are important throughout the state of Utah, regulatory agencies have been requiring mitigation for disturbance and eventual replacement from the coal industry. SCM will comply with the requirements of mitigation and eventual replacement of the resources which may be lost or disturbed during this mining operation, refer to Sections 331, 340, 350, and 762.100.

As a mitigation effort SCM replanted 7,500 feet of disturbed riparian streambank above the northern disturbed area boundary with a modified version of Seed Mix No. 1 (mitigation seed mix), to assist in restoring vegetation which has been disturbed by the logging industry.

CHAPTER 5

ENGINEERING

M&RP

rubber-tired tractors and service cars will be used to transport personnel and materials from the portals to the working faces.

The mining of the Gil 4b East and West panels located in portions of the NW1/4 of Section 25, portions of the NE1/4 of Section 26, and portions of the SW 1/4 and SE1/4 of Section 23 T13SR12E will be done using continuous miners (development mining). Pillars will remain following the mining of these panels. Refer to Plate 5-7 for the location of these panels and Section 114 for a legal description.

The pillars in developed entries will be left to protect adjacent panels.

Longwall Mining. Longwall mining will be used for extraction of large, uniform blocks of coal where the panels are more than 2,500 feet in length and where a suitable longwall panel can be laid out. Coal thicknesses of up to 14 feet will be mined in the Dugout Canyon Mine using longwall methods. In areas where coal is thicker than the height capacity of the mining equipment, the unmined coal will be left on the bottom of the bed unless economic or safety conditions warrant otherwise.

The longwall mining system at the Dugout Canyon Mine will consist of three basic integrated sub-systems: self advancing roof support, shearer, and conveyance. Shield-type roof supports will be used. Shield supports are generally considered more suitable for mining conditions such as those encountered at the Dugout Canyon Mine and are designed for expansion, contraction, advancement, and movement in varying thicknesses of coal.

The longwall shearer will utilize a double-ended shearer system for efficiency and flexibility of operation. Such a system consists of two rotary cutting drums mounted on ranging arms which are pivoted to a common body containing the power and drive assemblies. An optimum-tip drive speed is associated with each drum-pick configuration and diameter to assure minimization of fines in the sheared coal. The conveyance system to be used in the mine has been designed to convey extracted coal along the 540 to 1000 foot faces.

A small metal utility trailer will be used for transportation of explosives underground. This trailer will be lined with plywood, with separate compartments for caps and powder. No metal parts will be exposed to the caps or powder. All underground blasting activities at the mine will be conducted under the direction of a MSHA certified blaster.

525 Subsidence

525.100 Subsidence Control Plan

Structures and Renewable Resource Lands. As noted in Section 521.100, no major electric transmission lines, pipeline, or agricultural drainage tile fields exist within the area of potential subsidence. As described in Section 527.100, the roads within the area of potential subsidence consist of private roads that are owned and maintained by the parent company of SCM and private citizens, including the Thayn family. These are unimproved dirt roads that may be used for access to the lease area. Localized damage that occurs to roads not owned by the parent company of SCM will be repaired to a condition acceptable to both the private landowner and SCM. No other structures are known to exist within the area of potential subsidence.

Renewable resource lands within the permit and adjacent areas are shown on Plate 4-1 and discussed in Section 411 of this M&RP. The area of potential subsidence is currently used for livestock grazing and wildlife habitat, with limited timber production on adjacent lands to the east of Dugout Canyon (see Section 411.120). Hydrologic resources in the area are discussed in Chapter 7 of this M&RP. Information regarding baseline groundwater conditions is provided in Section 724.100.

Mining Methods. As noted in Section 523, continuous miner and longwall mining methods will be used in the Dugout Canyon Mine. The size, sequence, and timing for the development of the underground workings are shown on Plate 5-7 and in Annual Reports. Subsidence is not anticipated to occur in areas where continuous miner/development mining methods are used.

Physical Conditions Affecting Subsidence. A detailed description of the physical conditions in the permit area that may influence subsidence (i.e., overburden lithology and thickness, coal seam thickness, etc.) is provided in Chapter 6. In particular, Plate 6-1 provides a surficial geologic map of the permit and adjacent areas, Plate 6-2 shows the locations of the coal-seam outcrops in the