

WEST RIDGE MINE

007/041

MINING AND RECLAMATION PLAN REVISION

TO INCLUDE STATE LEASES
ML47711 & ML49287

SUBMITTED: MARCH 22, 2005

THIS SUBMITTAL ALSO INCLUDES THE TEXT CHANGES FROM THE
PENDING PENTA CREEK FEE LEASE INCIDENTAL BOUNDARY CHANGE
APPLICATION (PANEL 7 TAILGATE DEVELOPMENT ONLY, NO FULL
EXTRACTION LONGWALL MINING) WHICH WAS SUBMITTED MARCH 7, 2005

File in:
 Confidential
 Shelf
 Expandable
Refer to Record No. 0004 Date 03/21/05
In C/ 0070041 Incoming
For additional information Confidential

NOTES TO REVIEWERS:

1) This revision adds SITLA (state) leases ML-47711 and ML-49287 to the WEST RIDGE Mine permit 007/041. This will add 1682.34 acres to the permit area.

2) On March 7, 2005 an Incidental Boundary Change (IBC) application was made to add 50.0 acres of the Penta Creek fee lease to the permit area. This Penta Creek IBC application is explicitly for approval only of the development of the tailgate entries for Panel 7, and explicitly excludes approval of longwall mining of Panel 7 until the results of an on-going seismicity study are available for review by the regulatory agencies (BLM and DOGM). The results of this study will then become the basis upon which full-extraction longwall mining of Panel 7 is either approved or denied. **In the IBC application all text changes were shown in red, and are described in the C1/C2 forms dated March 17, 2005.**

3) **This state lease revision contains all text changes from the Penta Creek IBC application, which are shown in red, exactly as contained in the March 7 submittal.**

4) All text changes in this submittal which are in addition to the IBC text, and are specific to inclusion of the state leases, are shown in blue. The changes are described in the C1/C2 forms dated February 22, 2005.

5) Page changes that do not have no red or blue changes are the result of pagination changes.

6) In this submittal the permit area is defined as the presently approved permit area (4382.55 acres), plus the pending Penta Creek IBC area (50.0 acres), plus the pending state leases (1682.34) for a total pending permit area of 6114.89 acres.

DRAFT

PUBLIC NOTICE FOR PERMIT CHANGE

WEST RIDGE MINE

ADDITION OF STATE LEASES ML-47711 AND ML-49287

PUBLIC NOTICE FOR PERMIT CHANGE
WEST RIDGE MINE
P.O. BOX 1077
PRICE, UTAH 84501

Notice is hereby given that West Ridge Resources, Inc. P.O. Box 1077, Price, UT 84526, a subsidiary owned jointly by Intermountain Power Agency and ANDALEX Resources, Inc. has submitted with the Utah Division of Oil, Gas & Mining, a complete application for adding the State Leases ML-47711 and ML-49287 to the existing Mine and Reclamation Permit, ACT/007/041. The permit area is located in eastern Carbon County, Utah on the USGS topographic quadrangle maps of Sunnyside and Mount Bartles. The description of the permitted area is as follows:

Township 13 South, Range 13 East, SLBM

Section 35: SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$

Section 36: SW $\frac{1}{4}$

Township 14 South, Range 13 East, SLBM

Section 1: Lots 2, 3, 4, 5, 6, 7, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$

Section 2: All

Section 3: Lots 1, 2, 3, S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$

Section 10: All

Section 11: All

Section 12: All

Section 13: All

Section 14: E $\frac{1}{2}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$

Section 15: NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ (part thereof, containing security gate)

Section 16: NE $\frac{1}{4}$ SE $\frac{1}{4}$ (part thereof, containing substitute topsoil area)

Section 21: NE $\frac{1}{4}$ NE $\frac{1}{4}$ (part thereof, containing pumping station)

Section 24: N $\frac{1}{2}$ SE $\frac{1}{4}$, N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Township 14 South, Range 14 East, SLBM

Section 6: Lot 6

Section 7: Lots 3, 4, SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$

Section 18: Lots 1, 2, 3, E $\frac{1}{2}$ NW $\frac{1}{4}$

A copy of this application is available for inspection at the Division of Oil, Gas and Mining at 1594 West North Temple, Suite 1210, Salt Lake City, Utah. Comments, objections, or requests for an informal conference should be addressed to the Utah Division of Oil, Gas & Mining, 1594 West North Temple, Suite 1210, P.O. Box 145801, Salt Lake City, Utah 84114-5801.

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112.420 Ownership or control relationship to the applicant, including percentage of ownership and location in organizational structure.

Information regarding ownership or control relationship to the applicant is presented in Appendix 1-7.

112.500 Names and addresses of each legal or equitable owner of record of the surface and mineral property to be mined, each holder of record of any leasehold interest in the property to be mined, and any purchaser or record under a real estate contract for the property to be mined.

Surface Owners:

Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

Glen Wells
700 West U.S. Hwy 6
Price, Utah 84501

Penta Creek, LLC
140 S. Newton
Albert Lea, MN 56007

Dave Hinkins
155 West 100 South
Orangeville, Utah 84537

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

Matt Rauhala
1236 East Main
Price, Utah 84501

Subsurface Owners:

Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

Penta Creek, LLC
140 S. Newton
Albert Lea, MN 56007

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

WEST RIDGE Resources, Inc. is the holder of record for federal lease SL-068754 and UTU 78562 (see Table 1-1), state lease ML 47711 and ML 49287 (see Table 1-2A) and the Penta Creek Fee lease (see Table 1-2B) which is composed of the area as listed in Table 1-1.

Proof of lease assignment for lease SL-068754 and UTU 78562 is provided in Appendix 1-4, lease ML 47711 and ML 49287 in Appendix 1-16, and the Penta Creek fee lease in Appendix 1-14.

112.600 Names and addresses of owners of record of all property (surface and subsurface) contiguous to any part of the permit area.

Same as listed in 112.500 with the following additions:

Contiguous surface owners:

Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

Dave Hinkins
155 West 100 South
Orangeville, Utah 84537

Glen Wells
700 West U.S. Hwy 6
Price, Utah 84501

Penta Creek, LLC
140 S. Newton
Albert Lea, MN 56007

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

Contiguous subsurface owners:

School and Institutional Trust
Lands Administration
355 West North Temple, Suite 400
Salt Lake City, Utah 84180-1204

Penta Creek, LLC
140 S. Newton
Albert Lea, MN 56007

Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

Dave Hinkins
155 West 100 South
Orangeville, Utah 84537

112.700 The MSHA numbers for all mine associated structures that require MSHA approval.

MSHA Identification Number: MSHA number 42-02233 was issued on March 12, 1999.

112.800 ~~There are no pending interests or bids existing~~ on lands contiguous to the present leased area.

~~WEST RIDGE Resources, Inc. has obtained an option to acquire mining rights for state coal reserves in T. 13 S., R. 13 E., Section 36.~~

112.900 After WEST RIDGE Resources, Inc. is notified that the application is approved, but before the permit is issued, WEST RIDGE Resources, Inc. will update, correct or indicate that no change has occurred in the information previously submitted under R645-301-112.100 through R645-301-112.800.

R645-301-113 VIOLATION INFORMATION

113.100 The applicant or any subsidiary, affiliate or persons controlled by or under common control with the applicant has not had a federal or state permit to conduct coal mining and reclamation operations suspended or revoked in the five years preceding the date of submission of the application.

113.120 The applicant etc. has not forfeited any performance bond or similar security

113.200 Not applicable

113.300 A listing of violations received by the applicant or any subsidiary, affiliate or persons controlled by or under common control with the applicant in connection with any coal mining and reclamation operation during the three year period preceding the application date is provided in Appendix 1-2. MSHA numbers for the operations listed in Appendix 1-2 can be found in Appendix 1-5.

113.400 After WEST RIDGE Resources, Inc. is notified that the application is approved, but before the permit is issued, WEST RIDGE Resources, Inc. will update, correct or indicate that no change has occurred in the information previously submitted under R645-301-113.

R645-301-114 RIGHT OF ENTRY INFORMATION

114.100 WEST RIDGE Resources, Inc., currently holds 4,297.01 acres of federal coal (2,650.67 acres leased under SL-068754 and 1646.34 acres leased under UTU 78562) in the Book Cliffs coal field (refer to Map 5-4A). **WEST RIDGE currently holds 1682.34 acres of state coal (801.24 acres under ML 47711 and 881.10 under ML 49287. ~~These leases are not included in the permit area.~~** WEST RIDGE also holds a **382.08** acre lease on contiguous private (fee) coal lands located along the eastern side of the mineable reserve (see Appendix 1-14). **Within this fee lease 124.92 acres are included in the pending permit area.** These leases are not the subject of any pending litigation. WEST RIDGE Resources, Inc. bases its legal right to enter and conduct mining activities in the permit area pursuant to the language contained in the Federal Coal Lease, Part I Lease Rights Granted which reads as follows:

"That the lessor, in consideration of the rents and royalties to be paid and the covenants to be observed as hereinafter set forth, does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in, upon, or under the following described tracts of land, situated in the State of Utah... together with the right to construct all such works, buildings, plants, structures and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted."

The substitute topsoil borrow area, which is also included within the permit area, is located on lands administered by the State of Utah, School and Institutional Trust Lands Administration (SITLA). This area is located within the SE1/4 of section 16, T 14 S, R 13 E. SITLA has issued a long term special use permit to WEST RIDGE Resources, Inc. which provides full assurance that the topsoil resource in this area will be available for (and, indeed dedicated to) final reclamation of the West Ridge minesite if needed. (See Appendix 1-4)

Coal lease SL-068754-U-01215 was modified by the BLM. Refer to Appendix 1-9 for the coal lease modification.

The **pending** permit area consists of federal coal leases SL-068754-U-01215 and UTU 78562 (4297.01 acres as described in Table 1-1) **state coal leases ML-47711 and ML-49287 (1,682.34 acres as described in Table 1-2A), the Penta Creek fee lease (124.92 acres as described in Table 1-2B).** The permit area also includes a special use state surface lease (9.6 acres as described in Table I-2A). The two areas are not contiguous however. The 9.6 acre state surface lease is for a possible topsoil borrow site if it is needed at the time of final reclamation. This permit area also includes a 0.23 acre right-of-way issued by the BLM for a water pumping station (refer to

Appendix 1-12). The permit area also includes a 0.79 acre area along the Carbon County C Canyon Road down to and including the security gate (refer to Appendix 1-13). The total pending permit area is 6,114.89 acres. Refer to Map 1-1 for the permit area location. Refer to Table 1-4 for the legal description of the permit area.

WEST RIDGE Resources has hired R, B & G Engineering to prepare a study of the risk to the Grassy Trail dam and reservoir from seismicity and subsidence associated with longwall mining in the West Ridge Mine. This study will involve collection of additional data from newly-installed accelerometers, subsidence monitoring stations, and piezometers in the area around the dam. This study is being conducted with input from BLM, DOGM, Division of Dam Safety, and East Carbon City. Stipulation 17 of Federal Lease UTU-78562 states the following:

"17. SEISMIC STIPULATION: Mining operations shall be conducted in a manner to prevent seismic events that would cause damage to surface or subsurface structures such as: power lines or mine pillars and other structures such as Grassy Trail Reservoir and/or create hazardous conditions such as landslides.

The Lessee shall: (1) Provide a seismic risk assessment of the Grassy Trail Reservoir to the AO prior to mining in the lease. (2) Prior to mining in the lease, the Lessee shall provide a plan to monitor the Reservoir and the steps necessary to mitigate any damage created by the lessee. These plans shall be updated by the Lessee as deemed necessary by the AO.

The AO will either approve or may prescribe the mining methods used, the amount of coal recovered or determine the corrective measures necessary to assure protection of surface or subsurface structures and resources. The Lessee is and will remain liable for any and all damages or hazardous conditions resulting from the mining operations under the lease."

(Refer to Appendix 1-4)

In the most recent R2P2 approval (see Appendix 5-3A), BLM approved longwall mining in panel #6. Development of the tail-gate entries for panel #7 is also approved. However, the R2P2 states, "Longwall mining of Panel 7 is not approved at this time. Approval of Panel 7 will be contingent on receipt of final seismic analysis report(s), updated data from the on-going monitoring, and receipt of BLM of adequate contingency plan(s) addressing mitigating steps." Therefore, WEST RIDGE Resources acknowledges that Division approval of the Incidental Boundary Change for the Penta Creek fee lease is only for first mining of the tail-gate entries for panel 7 and that approval of longwall mining (i.e. full extraction mining) in panel 7 will not be issued until the seismic analysis is completed, the conditions of Lease Stipulation 17 have been complied with to the satisfaction of BLM and the Division, and R2P2 approval of full extraction of panel 7 has been granted by BLM. When the seismic analysis report is finalized WEST RIDGE Resources will apply to the Division for an amended MRP

based on the conclusions of the report and BLM concurrence thereof. At that time, the seismicity analysis report will be added to the MRP as Appendix 5-9.

114.200 Not applicable, the fee lease mineral estate is not severed from the surface estate.

**TABLE 1-1
FEDERAL COAL LEASE PROPERTIES**

<u>LEASE SERIAL NUMBER</u>	<u>DATE ISSUED</u>	<u>LEASE ACREAGE</u>	<u>LEGAL DESCRIPTION+</u>	<u>ASSIGNMENT</u>
SL-068754-U-01215	3-27-97	2,570.67	T 14 S, R 13 E	See Note 1
			Section 10: NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$	
			Section 11: All	
			Section 12: S $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$	
			Section 13: NW $\frac{1}{4}$, S $\frac{1}{2}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$	
			Section 14: E $\frac{1}{2}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$	
			Section 24: N $\frac{1}{2}$ SE $\frac{1}{4}$, N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$	
SL-068754 (Lease Modification)	9/1/98	80.0	T 14 S, R 13 E	
			Section 10: SE $\frac{1}{4}$ SE $\frac{1}{4}$	
			Section 15: NE $\frac{1}{4}$ NE $\frac{1}{4}$	
UTU-78562	12/12/01	1,646.34	T 13 S, R13 E	
			Section 35: SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$	
			T 14 S, R 13 E	
			Section 1: Lots 2-7 S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$	
NE $\frac{1}{4}$			Section 12: Lots 1-4 S $\frac{1}{2}$ N $\frac{1}{2}$, SE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$	
			Section 13: NE $\frac{1}{4}$ NE $\frac{1}{4}$	
			T 14 S, R 14 E	
			Section 6: Lot 6	
			Section 7: Lots 3 and 4	
			Section 18: Lot 1 E $\frac{1}{2}$ NW $\frac{1}{4}$	
TOTAL FEDERAL LEASE ACREAGE -		<u>4,297.01</u>		

4/05/2003 - 10/12/99

+ Utah State legal description utilizing Salt Lake Base and Meridian.

Note 1: Coal lease assigned from The Standard Oil Company to AMCA Coal Leasing on March 27, 1997.

**TABLE I-2A
STATE COAL LEASE PROPERTIES***

<u>LEASE SERIAL NUMBER</u>	<u>DATE ISSUED</u>	<u>LEASE ACREAGE</u>	<u>LEGAL DESCRIPTION+</u>
ML 47711*	04/01/2003	641.24	T 14 S, R 13 E Sec. 2: Lots 1-4, S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$ (all)
		160.0	T 13 S, R 13 E Sec. 36: SW $\frac{1}{4}$
TOTAL		801.24	
ML 49287*	04/01/2004	881.10	T 14 S, R 13 E Section 3: Lots 1-3, S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$
			Section 10: W $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$
TOTAL		881.10	

STATE SURFACE LEASE

SPECIAL USE LEASE

<u>LEASE NUMBER</u>	<u>DATE ISSUED</u>	<u>LEASE ACREAGE</u>	<u>LEGAL DESCRIPTION+</u>
Special Use Lease Agreement #1163		9.6	T 14 S, R 13 E Sec. 16: (9.6 acres within the NE $\frac{1}{4}$ SE $\frac{1}{4}$)
TOTAL		9.6	
TOTAL STATE		1691.94	

* Inclusion of these state leases in the permit area is pending DOGM permitting action.

+ Utah State legal description utilizing the Salt Lake Base and Meridian.

**TABLE I-2B
PENTA CREEK FEE LEASE PROPERTY
ACQUIRED JANUARY 1, 2003**

<u>LEGAL DESCRIPTION (TOTAL LEASE)</u>	<u>ACREAGE</u>
T 14 S, R 14 E S.L.B.& M	
Section 6: Lot 7, SE $\frac{1}{4}$ SW $\frac{1}{4}$	76.56
Section 7: Lot 1*, Lot 2*, NE $\frac{1}{4}$ NW $\frac{1}{4}$,* E $\frac{1}{2}$ SW $\frac{1}{4}$,* SW $\frac{1}{4}$ SE $\frac{1}{4}$	190.60
Section 18: Lots2, Lot 3, NW $\frac{1}{4}$ NE $\frac{1}{4}$	114.92
<p>Less and excepting from the portion of the above legal subdivisions in Section 7 (marked with *), those lands under and around Grassy Trail Dam and Reservoir owned by East Carbon City and Sunnyside City, such lands being more accurately described in Appendix 1-15.</p>	
Total Penta Creek Fee Lease:	382.08

<u>LEGAL DESCRIPTION (PERMIT AREA ONLY)**</u>	<u>ACREAGE</u>
T 14 S, R 14 E S.L.B.& M	
Section 7: SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$	50.00
Section 18: Lot 2, Lot 3	74.92
Total Penta Creek Fee Lease Within Pending Permit Area:	124.92**

**** Inclusion of this part of the fee lease is pending DOGM permitting action.**

**Table 1-3
Surface Ownership of Pending Permit Area**

T(S)/R(E)	Section	BLM	Penta Creek	Hinkins	Wells	Rauhala	SITLA	Total
13/13	35	-	-	148.16	91.84	-	-	240.0
13/13	36	-	160**	-	-	-	-	160
14/13	1	283.75	285.77	-	-	39.92	-	609.44
14/13	2	-	641.24**	-	-	-	-	641.24
14/13	3	-	-	-	80.66**	-	520.44**	601.10
14/13	10	360	-	-	-	-	280**	640
14/13	11	650.87	-	-	-	-	-	650.87
14/13	12	-	648.96	-	-	-	-	648.96
14/13	13	640	-	-	-	-	-	640
14/13	14	440	-	-	-	-	-	440
14/13	15	40.79	-	-	-	-	-	40.79
14/13	16	-	-	-	-	-	9.6	9.6
14/13	21	0.23	-	-	-	-	-	0.23
14/13	24	440	-	-	-	-	-	440
14/14	6	36.41	-	-	-	-	-	36.41
14/14	7	74.08	50.00**	-	-	-	-	124.08
14/14	18	117.25	74.92	-	-	-	-	192.17
		3083.38	1860.89	148.16	172.5	39.92	810.04	6114.89

** Denotes areas of pending DOGM permitting action.

**TABLE 1-4
LEGAL DESCRIPTION OF PERMIT AREA**

<u>PARCEL</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
FEDERAL LEASE SL-068754-U-01215	2,570.67	T 14 S, R 13 E Section 10: NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ Section 11: All Section 12: S $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 13: NW $\frac{1}{4}$, S $\frac{1}{2}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 14: E $\frac{1}{2}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 24: N $\frac{1}{2}$ SE $\frac{1}{4}$, N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$
FEDERAL LEASE SL-068754 (Lease Modification)	80.0	T 14 S, R 13 E Section 10: SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 15: NE $\frac{1}{4}$ NE $\frac{1}{4}$
FEDERAL LEASE UTU-78562	1,646.34	T 13 S, R13 E Section 35: SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$ T 14 S, R 13 E Section 1: Lots 2-7 S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 12: Lots 1-4 S $\frac{1}{2}$ N $\frac{1}{2}$, SE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 13: NE $\frac{1}{4}$ NE $\frac{1}{4}$ T 14 S, R 14 E Section 6: Lot 6 Section 7: Lots 3 and 4 Section 18: Lot 1 E $\frac{1}{2}$ NW $\frac{1}{4}$

TABLE 1-4 (CONTINUED)
LEGAL DESCRIPTION OF PENDING PERMIT AREA

<u>PARCEL</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
STATE LEASE ML 47711*	801.24	T 14 S, R 13 E Section 2: Lots 1 thru 4, S½N½, S½ T 13 S, R 13 E Section 36: SW¼
STATE LEASE ML 49287*	881.10	T 14 S, R 13 E Section 3: Lots 1,2,3, S½N½, S½ Section 10: W½NW¼, SW¼, SW¼SE¼
PENTA CREEK FEE LEASE	124.92	T 14 S, R 14 E Section 7: SE¼SW¼,* SW¼NE¼SW¼* Section 18: Lots 2, 3
PUMPING STATION (BLM R.O.W. UTU-77120)	0.23	T 14 S, R 13 E Section 21: NE¼NE¼
TOPSOIL SALVAGE AREA (SITLA special use agreement #1163)	9.6	T 14 S, R 13 E Section 16: NE¼SE¼
SECURITY GATE (Carbon County authorization)	0.79	T 14 S, R 13 E Section 15: NW¼SE¼NE¼
TOTAL PERMIT AREA	6114.89	

* Inclusion of these leases is pending DOGM permitting action.

R645-301-115 STATUS OF UNSUITABILITY CLAIMS

115.100 The proposed permit area is not within an area designated as unsuitable for mining. WEST RIDGE Resources, Inc. is not aware of any petitions currently in progress to designate the area as unsuitable for coal mining and reclamation activities.

The area in which the proposed facility will be located has been evaluated within area management plans. It has not been found unsuitable for mining activities under any categories of examination.

115.200 Not applicable.

115.300 WEST RIDGE Resources, Inc. will not be conducting mining operations within 100 feet of an occupied dwelling. WEST RIDGE Resources, Inc. has received permission from Carbon County to construct facilities and operate coal mining activities within 100 feet of a public road. Refer to the letter from Carbon County in Appendix 1-8.

R645-301-116 PERMIT TERM

116.100 The anticipated starting and termination dates of the coal mining and reclamation operation are as follows:

	<u>Begin</u>	<u>Complete</u>
Construction of Mining Pad, Mining Support Structures, and Portals	Apr. 1999	Dec. 1999
Begin Mining	Jan. 2000	
Terminate Mining		Dec. 2017*
Remove Facilities	Jan. 2018*	June 2018*
Regrade Area	July 2018*	Sept. 2018*
Revegetate Site	Oct. 2018*	Nov. 2018*

*This assumes mine life extended through acquisition of adjacent state and federal coal reserves.

Approximately 6,114.89 acres are within the pending permit boundary. Of this acreage, about 25 acres will be utilized for surface facilities and structures. The proposed surface facilities should be capable of supporting the life of the mine operations as presented in this permit application.

**ATTACHMENT 1-5
VERIFICATION STATEMENT**

I hereby certify that I am a responsible official (Resident Agent) of the applicant (ANDALEX and IPA for WEST RIDGE Resources, Inc.) and that the information contained in this application, including the addition of State Lease ML-47711 and ML-49287, and the Penta Creek Incidental Boundary Change, 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

R. E. Engin *Resident Agent* *03/21/05* Signed - Name - Position - Date

Subscribed and sworn to before me this *21* day of *March*, 20*05*

Rada J. Rogers
Notary Public

My commission Expires: *10/2, 2006*

Attest: STATE OF *Utah*) ss:
COUNTY OF *Carbon*)



APPENDIX 1-2

VIOLATION INFORMATION - R645-301-113.300

CRANDALL CANYON MINE
PERMIT NUMBER 015/032

DOGM VIOLATIONS 2001 THROUGH FEBRUARY 2005

VIOLATION/ CESSATION NO.	DATE ISSUED	ABATEMENT DATE	VIOLATION DESCRIPTION
NO3-49-2-1	7/30/03	8/20/03	Failure to submit surface blast plan pf more than 5 pounds. Abated with submittal and approval of plan.
NO3-49-1-1	1/8/03	4/15/03	Failure to request permit renewal 120 days prior to permit expiration. Abated with submittal of permit renewal application.
NO4-49-4-1	8/19/04	8/23/04	Employee Parking in Forest Service trail-head. Vehicle removed from trail-head.
NO4-49-5-1	9/8/04	9/13/04	Failure to control non-coal waste. Non-coal waste was picked up and stored in appropriate area.

WESTRIDGE MINE
PERMIT NUMBER 007/041

DOGM VIOLATIONS 2001 THROUGH FEBRUARY 2005

VIOLATION/ CESSATION NO.	DATE ISSUED	ABATEMENT DATE	VIOLATION DESCRIPTION
NO2-49-2-1	11/19/02	2/18/02	Diverting mine water through channels and culverts and storing in sediment pond. Abated with submittal of permit change allowing use.
NO2-49-1-1	2/19/02	5/20/02	Failure to maintain or construct diversions according to approved MRP. Abated with the completion of a permit change approval and construction measures.
NO4-49-1-1	1/22/04	1/22/04	Failure to request permit renewal 120 prior to permit expiration. Abated with submittal of permit renewal application.

CENTENNIAL MINES
PERMIT NUMBER 007/019

DOG M VIOLATIONS 2001 THROUGH FEBRUARY 2005

VIOLATION/ CESSATION NO.	DATE ISSUED	ABATEMENT DATE	VIOLATION DESCRIPTION
NO4-49-2-1	1/24/04	3/25/04	Failure to maintain disturbed diversion DD-4 and culvert.

APPENDIX 1-4

PROOF OF FEDERAL LEASE ASSIGNMENT

SL 68754

UTU 78562

APPENDIX 1-15

LEGAL DESCRIPTION OF GRASSY TRAIL RESERVOIR

EXHIBIT 'A'

DEEDED LAND - INCLUDING THE AREA OF GRASSY TRAIL RESERVOIR UNDER ELEVATION 7620.9 FEET AND THE AREA ADJACENT TO THE DAM.

A PARCEL OF LAND LOCATED IN CARBON COUNTY, STATE OF UTAH, WHICH IS IN THE NORTHWEST QUARTER AND THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 14 EAST, SALT LAKE BASE AND MERIDIAN, BEING FURTHER DESCRIBED AS FOLLOWS WITH A BEARING OF NORTH 0°00'00" EAST, BETWEEN THE WEST QUARTER CORNER AND THE NORTHWEST CORNER OF SAID SECTION 7 USED AS THE BASIS OF BEARING, AND BEING MORE PARTICULARLY DESCRIBED ACCORDING TO THE FOLLOWING COURSES AND DISTANCES, TO-WIT:

BEGINNING AT A POINT WHICH IS LOCATED SOUTH 89°34'34" WEST, 577.93 FEET ALONG THE SECTION LINE AND SOUTH 0°25'26" EAST, 616.36 FEET FROM THE NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 14 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE SOUTH 02°41'16" EAST, 167.59 FEET TO A POINT HAVING AN ELEVATION OF 7620.9 FEET; THENCE ALONG THE FOLLOWING COURSES AND DISTANCES HAVING AN ELEVATION OF 7620.9 FEET, THENCE SOUTH 06°04'29" WEST, 57.48 FEET; THENCE SOUTH 15°31'01" WEST, 39.60 FEET; THENCE SOUTH 31°57'10" WEST, 47.67 FEET; THENCE SOUTH 42°15'37" EAST, 50.63 FEET; THENCE SOUTH 00°42'36" EAST, 28.81 FEET; THENCE SOUTH 22°35'01" WEST, 44.34 FEET; THENCE SOUTH 25°42'34" WEST, 57.64 FEET; THENCE SOUTH 17°26'08" WEST, 67.42 FEET; THENCE SOUTH 37°19'52" WEST, 43.03 FEET; THENCE SOUTH 10°25'22" WEST, 38.28 FEET; THENCE SOUTH 27°18'51" WEST, 156.31 FEET; THENCE SOUTH 39°02'28" WEST, 53.40 FEET; THENCE SOUTH 45°00'45" WEST, 31.74 FEET; THENCE SOUTH 45°48'21" WEST, 99.45 FEET; THENCE SOUTH 21°28'34" WEST, 33.14 FEET; THENCE SOUTH 12°32'15" WEST, 78.54 FEET; THENCE SOUTH 06°45'46" WEST, 60.04 FEET; THENCE SOUTH 07°00'30" WEST, 41.44 FEET; THENCE SOUTH 03°29'47" EAST, 58.65 FEET; THENCE SOUTH 03°42'50" WEST, 89.17 FEET; THENCE SOUTH 06°39'56" WEST, 87.35 FEET; THENCE SOUTH 02°26'03" WEST, 131.79 FEET; THENCE SOUTH 01°48'02" WEST, 20.71 FEET; THENCE SOUTH 10°50'14" EAST, 121.17 FEET; THENCE SOUTH 02°51'32" EAST, 43.74 FEET; THENCE SOUTH 09°14'58" EAST, 44.46 FEET; THENCE SOUTH 22°58'03" EAST, 65.76 FEET; THENCE SOUTH 21°31'59" EAST, 167.75 FEET; THENCE LEAVING ELEVATION 7620.9 FEET; THENCE NORTH 90°00'00" EAST, 343.42 FEET; THENCE SOUTH 0°00'00" WEST, 203.21 FEET; THENCE SOUTH 49°46'54" WEST, 286.20 FEET; THENCE SOUTH 01°55'09" EAST, 150.27 FEET; THENCE SOUTH 74°29'37" WEST, 619.03 FEET TO THE EAST EDGE OF AN EXISTING ROAD; THENCE ALONG THE EAST EDGE OF AN EXISTING ROAD THE FOLLOWING FIVE CALLS; THENCE NORTH 33°21'55" WEST, 24.04 FEET; THENCE NORTH 24°08'49" WEST, 22.74 FEET; THENCE NORTH 16°21'28" WEST, 105.80 FEET; THENCE NORTH 10°56'05" WEST, 39.36 FEET; THENCE NORTH 4°35'47" WEST, 3.13 FEET TO THE EAST LINE OF LOT 3 OF SAID SECTION 7; THENCE NORTH 0°12'18" WEST, 403.37 FEET TO THE NORTHEAST CORNER OF SAID LOT 3; THENCE SOUTH 89°35'34" WEST, 305.92 FEET ALONG THE NORTH LINE OF SAID LOT 3; THENCE ALONG THE FOLLOWING COURSES AND DISTANCES HAVING AN ELEVATION OF 7620.9 FEET; THENCE NORTH 42°28'33" WEST, 10.05 FEET; THENCE NORTH 0°24'23" EAST, 87.17 FEET; THENCE NORTH 11°38'06" EAST, 63.67 FEET; THENCE NORTH 02°37'09" EAST, 59.99 FEET; THENCE NORTH 13°37'12" WEST, 51.20 FEET; THENCE NORTH 04°48'33" WEST, 116.52 FEET; THENCE NORTH 05°16'17" WEST, 58.68 FEET; THENCE NORTH 03°09'16" WEST, 32.25 FEET; THENCE NORTH 01°27'55" EAST, 239.53 FEET; THENCE NORTH 03°21'52" EAST, 64.03 FEET; THENCE NORTH 01°16'56" EAST, 79.58 FEET; THENCE NORTH 06°07'44" EAST, 64.79 FEET; THENCE NORTH 05°44'08" EAST, 67.38 FEET; THENCE NORTH 01°58'53" EAST, 59.43 FEET; THENCE NORTH 20°51'15" EAST, 41.86 FEET; THENCE NORTH 35°05'08" EAST, 54.15 FEET; THENCE NORTH 51°13'30" EAST, 77.72 FEET; THENCE NORTH 17°16'59" EAST, 15.12 FEET; THENCE NORTH 75°19'34" WEST, 74.24 FEET THENCE NORTH 13°07'54" EAST, 111.56 FEET; THENCE NORTH 26°10'10" EAST, 55.50 FEET; THENCE NORTH 05°47'47" EAST, 31.20 FEET; THENCE NORTH 27°33'55" WEST, 14.64 FEET; THENCE NORTH 44°03'09" WEST, 33.66 FEET; THENCE NORTH 34°27'47" WEST, 15.32 FEET; THENCE NORTH 32°53'17" WEST, 43.88 FEET; THENCE NORTH 30°47'37" WEST, 56.62 FEET; THENCE NORTH 35°50'20" WEST, 89.68 FEET; THENCE NORTH 48°39'14" WEST, 142.33 FEET; THENCE NORTH 31°05'31" WEST, 227.43 FEET; THENCE NORTH 21°04'32" WEST, 308.53 FEET CROSSING AN EXISTING ROAD; THENCE NORTH 68°55'28" EAST, 3.00 FEET; THENCE SOUTH 21°04'32" EAST, 60.19 FEET CROSSING AN EXISTING ROAD; THENCE SOUTH 57°07'04" EAST, 258.58 FEET; THENCE SOUTH 64°11'32" EAST, 119.79 FEET; THENCE SOUTH 59°28'18" EAST, 72.31 FEET; THENCE SOUTH 59°52'51" EAST, 43.41 FEET; THENCE SOUTH 46°34'03" EAST, 54.09 FEET; THENCE SOUTH 45°44'11" EAST, 46.23 FEET; THENCE SOUTH 79°53'05" EAST, 18.19 FEET; THENCE SOUTH 72°28'00" EAST, 28.13 FEET; THENCE SOUTH 66°07'17" EAST, 46.38 FEET; THENCE SOUTH 55°30'45" EAST, 63.83 FEET; THENCE SOUTH 50°26'19" EAST, 50.41 FEET; THENCE SOUTH 69°26'12" EAST, 90.12 FEET; THENCE SOUTH 58°53'36" EAST, 74.37 FEET; THENCE SOUTH 33°52'10" EAST, 38.44 FEET; THENCE SOUTH 71°49'18" EAST, 20.00 FEET; THENCE SOUTH 82°39'43" EAST, 3.68 FEET; THENCE NORTH 88°40'41" EAST, 55.25 FEET; THENCE NORTH 85°45'27" EAST, 66.99 FEET; THENCE NORTH 68°02'56" EAST, 30.93 FEET; THENCE NORTH 37°54'32" EAST, 138.07 FEET; THENCE NORTH 49°36'46" EAST, 133.26 FEET; THENCE LEAVING ELEVATION 7620.9 FEET GOING NORTH 48°56'09" EAST, 289.71 FEET TO THE POINT OF BEGINNING.

CONTAINS 44.52 ACRES, MORE OR LESS.

EXHIBIT 'B'

BUFFER ZONE - THE AREA OF LAND EXTENDING 100 FEET BEYOND THE ELEVATION LINE OF 7620.9 FEET ON THE EASTERLY, NORTHERLY, AND WESTERLY SIDE OF GRASSY TRAIL RESERVOIR.

A PARCEL OF LAND LOCATED IN CARBON COUNTY, STATE OF UTAH, WHICH IS IN THE NORTHWEST QUARTER AND THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 14 EAST, SALT LAKE BASE AND MERIDIAN, BEING FURTHER DESCRIBED AS FOLLOWS WITH A BEARING OF NORTH 0°00'00" EAST, BETWEEN THE WEST QUARTER CORNER AND THE NORTHWEST CORNER OF SAID SECTION 7 USED AS THE BASIS OF BEARING, AND BEING MORE PARTICULARLY DESCRIBED ACCORDING TO THE FOLLOWING COURSES AND DISTANCES, TO-WIT:

BEGINNING AT A POINT WHICH IS LOCATED SOUTH 89°34'34" WEST, 577.93 FEET ALONG THE SECTION LINE AND SOUTH 0°25'26" EAST, 616.36 FEET FROM THE NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 14 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE SOUTH 02°41'16" EAST, 167.59 FEET TO A POINT HAVING AN ELEVATION OF 7620.9 FEET; THENCE ALONG THE FOLLOWING COURSES AND DISTANCES HAVING AN ELEVATION OF 7620.9 FEET, THENCE SOUTH 06°04'29" WEST, 57.48 FEET; THENCE SOUTH 15°31'01" WEST, 39.60 FEET; THENCE SOUTH 31°57'10" WEST, 47.67 FEET; THENCE SOUTH 42°15'37" EAST, 50.63 FEET; THENCE SOUTH 00°42'36" EAST, 28.81 FEET; THENCE SOUTH 22°35'01" WEST, 44.34 FEET; THENCE SOUTH 25°42'34" WEST, 57.64 FEET; THENCE SOUTH 17°26'08" WEST, 67.42 FEET; THENCE SOUTH 37°19'52" WEST, 43.03 FEET; THENCE SOUTH 10°25'22" WEST, 38.28 FEET; THENCE SOUTH 27°18'51" WEST, 156.31 FEET; THENCE SOUTH 39°02'28" WEST, 53.40 FEET; THENCE SOUTH 45°00'45" WEST, 31.74 FEET; THENCE SOUTH 45°48'21" WEST, 99.45 FEET; THENCE SOUTH 21°28'34" WEST, 33.14 FEET; THENCE SOUTH 12°32'15" WEST, 78.54 FEET; THENCE SOUTH 06°45'46" WEST, 60.04 FEET; THENCE SOUTH 07°00'30" WEST, 41.44 FEET; THENCE SOUTH 03°29'47" EAST, 58.65 FEET; THENCE SOUTH 03°42'50" WEST, 89.17 FEET; THENCE SOUTH 06°39'56" WEST, 87.35 FEET; THENCE SOUTH 02°26'03" WEST, 131.79 FEET; THENCE SOUTH 01°48'02" WEST, 20.71 FEET; THENCE SOUTH 10°50'14" EAST, 121.17 FEET; THENCE SOUTH 02°51'32" EAST, 43.74 FEET; THENCE SOUTH 09°14'58" EAST, 44.46 FEET; THENCE SOUTH 22°58'03" EAST, 65.76 FEET; THENCE SOUTH 21°31'59" EAST, 167.75 FEET; THENCE LEAVING ELEVATION 7620.9 FEET; THENCE NORTH 90°00'00" EAST, 100.68 FEET; THENCE ALONG A LINE EXTENDING 100 FEET BEYOND THE ELEVATION LINE OF 7620.9 FEET ON THE EASTERLY, NORTHERLY AND WESTERLY SIDE OF GRASSY TRAIL RESERVOIR; THENCE NORTH 06°40'16" WEST, 24.74 FEET; THENCE NORTH 21°31'59" WEST, 182.04 FEET; THENCE NORTH 22°58'03" WEST, 54.98 FEET; THENCE NORTH 09°14'58" WEST, 26.85 FEET; THENCE NORTH 02°51'32" WEST, 45.13 FEET; THENCE NORTH 10°50'14" WEST, 117.07 FEET; THENCE NORTH 01°48'20" EAST, 9.08 FEET; THENCE NORTH 02°26'03" EAST, 127.54 FEET; THENCE NORTH 06°39'56" EAST, 86.23 FEET; THENCE NORTH 03°42'50" EAST, 98.05 FEET; THENCE NORTH 03°29'47" WEST, 55.76 FEET; THENCE NORTH 07°00'30" EAST, 32.46 FEET; THENCE NORTH 06°45'46" EAST, 55.21 FEET; THENCE NORTH 12°32'15" EAST, 65.68 FEET; THENCE NORTH 21°28'34" EAST, 3.77 FEET; THENCE NORTH 45°48'21" EAST, 78.59 FEET; THENCE NORTH 45°00'45" EAST, 37.65 FEET; THENCE NORTH 39°02'28" EAST, 68.88 FEET; THENCE NORTH 27°18'51" EAST, 181.42 FEET; THENCE NORTH 10°25'22" EAST, 29.21 FEET; THENCE NORTH 37°19'52" EAST, 36.65 FEET; THENCE NORTH 17°26'08" EAST, 77.71 FEET; THENCE NORTH 25°43'34" EAST, 53.14 FEET; THENCE NORTH 22°35'01" EAST, 67.70 FEET; THENCE NORTH 00°42'36" WEST, 87.35 FEET; THENCE NORTH 42°15'37" WEST, 17.45 FEET; THENCE NORTH 15°31'01" EAST, 46.90 FEET; THENCE NORTH 06°04'29" EAST, 30.23 FEET; THENCE NORTH 04°45'26" EAST, 50.76 FEET; THENCE NORTH 02°41'16" WEST, 374.34 FEET; THENCE SOUTH 48°55'47" WEST, 491.50 FEET; THENCE SOUTH 49°36'46" WEST, 147.29 FEET; THENCE SOUTH 37°54'32" WEST, 116.64 FEET; THENCE SOUTH 85°45'27" WEST, 41.03 FEET; THENCE SOUTH 88°40'41" WEST, 15.77 FEET; THENCE NORTH 33°52'10" WEST, 14.40 FEET; THENCE NORTH 58°53'36" WEST, 105.79 FEET; THENCE NORTH 69°26'12" WEST, 82.62 FEET; THENCE NORTH 50°26'19" WEST, 38.11 FEET; THENCE NORTH 55°30'45" WEST, 77.55 FEET; THENCE NORTH 66°07'17" WEST, 61.21 FEET; THENCE NORTH 72°28'00" WEST, 32.62 FEET; THENCE NORTH 45°44'11" WEST, 17.98 FEET; THENCE NORTH 46°34'03" WEST, 66.48 FEET; THENCE NORTH 59°52'51" WEST, 54.73 FEET; THENCE NORTH 59°28'18" WEST, 76.07 FEET; THENCE NORTH 64°11'32" WEST, 117.73 FEET; THENCE NORTH 57°07'04" WEST, 219.87 FEET; THENCE NORTH 21°04'32" WEST, 127.66 FEET; THENCE SOUTH 68°55'28" WEST, 203.00 FEET; THENCE SOUTH 21°04'32" EAST, 417.30 FEET; THENCE SOUTH 31°05'31" EAST, 251.64 FEET; THENCE SOUTH 48°39'14" EAST, 146.54 FEET; THENCE SOUTH 35°50'20" EAST, 74.04 FEET; THENCE SOUTH 30°47'37" EAST, 54.05 FEET; THENCE SOUTH 32°53'17" EAST, 47.08 FEET; THENCE SOUTH 34°27'47" EAST, 20.57 FEET; THENCE SOUTH 26°10'10" WEST, 27.17 FEET; THENCE SOUTH 13°07'54" WEST, 220.34 FEET; THENCE SOUTH 75°19'34" EAST, 9.55 FEET; THENCE SOUTH 35°05'08" WEST, 5.45 FEET; THENCE SOUTH 20°51'15" WEST, 70.96 FEET; THENCE SOUTH 01°58'53" WEST, 72.78 FEET; THENCE SOUTH 05°44'08" WEST, 63.76 FEET; THENCE SOUTH 06°07'44" WEST, 68.68

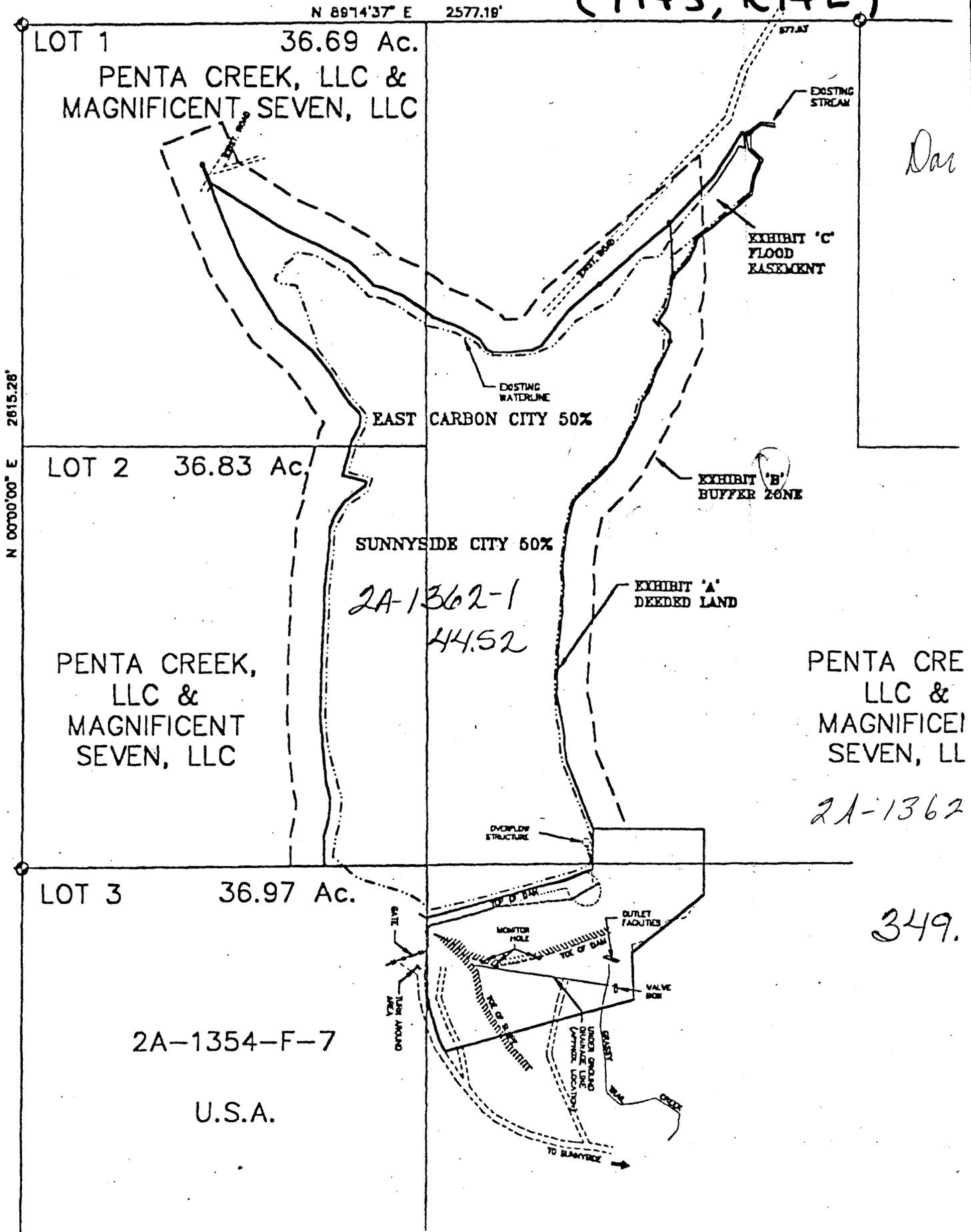
FEET; THENCE SOUTH 01°16'56" WEST, 82.00 FEET; THENCE SOUTH 03°21'52" WEST, 63.87 FEET; THENCE SOUTH 01°27'55" WEST, 245.22 FEET; THENCE SOUTH 03°09'16" EAST, 38.13 FEET; THENCE SOUTH 05°16'17" EAST, 60.12 FEET; THENCE SOUTH 04°48'33" EAST, 123.83 FEET; THENCE SOUTH 13°37'12" EAST, 44.64 FEET; THENCE SOUTH 02°37'09" WEST, 37.84 FEET; THENCE SOUTH 11°38'06" WEST, 65.62 FEET; THENCE SOUTH 00°24'23" WEST, 105.88 FEET TO THE NORTH LINE OF LOT 3, OF SAID SECTION 7; THENCE NORTH 89°35'34" EAST, 106.85 FEET ALONG THE NORTH LINE OF LOT 3, OF SAID SECTION 7; THENCE ALONG THE FOLLOWING COURSES AND DISTANCES HAVING AN ELEVATION OF 7620.9 FEET; THENCE NORTH 42°28'33" WEST, 10.05 FEET; THENCE NORTH 0°24'23" EAST, 87.17 FEET; THENCE NORTH 11°38'06" EAST, 63.67 FEET; THENCE NORTH 02°37'09" EAST, 59.99 FEET; THENCE NORTH 13°37'12" WEST, 51.20 FEET; THENCE NORTH 04°48'33" WEST, 116.52 FEET; THENCE NORTH 05°16'17" WEST, 58.68 FEET; THENCE NORTH 03°09'16" WEST, 32.25 FEET; THENCE NORTH 01°27'55" EAST, 239.53 FEET; THENCE NORTH 03°21'52" EAST, 64.03 FEET; THENCE NORTH 01°16'56" EAST, 79.58 FEET; THENCE NORTH 06°07'44" EAST, 64.79 FEET; THENCE NORTH 05°44'08" EAST, 67.38 FEET; THENCE NORTH 01°58'53" EAST, 59.43 FEET; THENCE NORTH 20°51'15" EAST, 41.86 FEET; THENCE NORTH 35°05'08" EAST, 54.15 FEET; THENCE NORTH 51°13'30" EAST, 77.72 FEET; THENCE NORTH 17°16'59" EAST, 15.12 FEET; THENCE NORTH 75°19'34" WEST, 74.24 FEET; THENCE NORTH 13°07'54" EAST, 111.56 FEET; THENCE NORTH 26°10'10" EAST, 55.50 FEET; THENCE NORTH 05°47'47" EAST, 31.20 FEET; THENCE NORTH 27°33'55" WEST, 14.64 FEET; THENCE NORTH 44°03'09" WEST, 33.66 FEET; THENCE NORTH 34°27'47" WEST, 15.32 FEET; THENCE NORTH 32°53'17" WEST, 43.88 FEET; THENCE NORTH 30°47'37" WEST, 56.62 FEET; THENCE NORTH 35°50'20" WEST, 89.68 FEET; THENCE NORTH 48°39'14" WEST, 142.33 FEET; THENCE NORTH 31°05'31" WEST, 227.43 FEET; THENCE NORTH 21°04'32" WEST, 308.53 FEET CROSSING AN EXISTING ROAD; THENCE NORTH 68°55'28" EAST, 3.00 FEET; THENCE SOUTH 21°04'32" EAST, 60.19 FEET CROSSING AN EXISTING ROAD; THENCE SOUTH 57°07'04" EAST, 258.58 FEET; THENCE SOUTH 64°11'32" EAST, 119.79 FEET; THENCE SOUTH 59°28'18" EAST, 72.31 FEET; THENCE SOUTH 59°52'51" EAST, 43.41 FEET; THENCE SOUTH 46°34'03" EAST, 54.09 FEET; THENCE SOUTH 45°44'11" EAST, 46.23 FEET; THENCE SOUTH 79°53'05" EAST, 18.19 FEET; THENCE SOUTH 72°28'00" EAST, 28.13 FEET; THENCE SOUTH 66°07'17" EAST, 46.38 FEET; THENCE SOUTH 55°30'45" EAST, 63.83 FEET; THENCE SOUTH 50°26'19" EAST, 50.41 FEET; THENCE SOUTH 69°26'12" EAST, 90.12 FEET; THENCE SOUTH 58°53'36" EAST, 74.37 FEET; THENCE SOUTH 33°52'10" EAST, 38.44 FEET; THENCE SOUTH 71°49'18" EAST, 20.00 FEET; THENCE SOUTH 82°39'43" EAST, 3.68 FEET; THENCE NORTH 88°40'41" EAST, 55.25 FEET; THENCE NORTH 85°45'27" EAST, 66.99 FEET; THENCE NORTH 68°02'56" EAST, 30.93 FEET; THENCE NORTH 37°54'32" EAST, 138.07 FEET; THENCE NORTH 49°36'46" EAST, 133.26 FEET; THENCE LEAVING ELEVATION 7620.9 FEET GOING NORTH 48°56'09" EAST, 289.71 FEET TO THE POINT OF BEGINNING.

CONTAINS 14.95 ACRES, MORE OR LESS.

CARBON COUNTY

SECTION 7

TOWNSHIP 14 SO
(T14S, R14E)



LOT 1 36.69 Ac.
PENTA CREEK, LLC &
MAGNIFICENT SEVEN, LLC

LOT 2 36.83 Ac.

PENTA CREEK,
LLC &
MAGNIFICENT
SEVEN, LLC

LOT 3 36.97 Ac.

2A-1354-F-7
U.S.A.

EAST CARBON CITY 50%

SUNNYSIDE CITY 50%

2A-1362-1
44.52

EXHIBIT 'C'
FLOOD
EASEMENT

EXHIBIT 'B'
BUFFER ZONE

EXHIBIT 'A'
DEEDED LAND

PENTA CRE
LLC &
MAGNIFICEI
SEVEN, LL

2A-1362

349.

Dor

APPENDIX 1-16

PROOF OF STATE LEASE ASSIGNMENT

ML 47711

NL 49287

GRANT: School

**UTAH STATE LEASE FOR COAL
ML 47711-OBA**

THIS COAL MINING LEASE AND AGREEMENT (the "Lease") is entered into and executed in triplicate as of April 1, 2003 (the "Effective Date") by and between the STATE OF UTAH, acting by and through the SCHOOL AND INSTITUTIONAL TRUST LANDS ADMINISTRATION, 675 East 500 South, Suite 500, Salt Lake City, Utah 84102 ("Lessor"), and ANDALEX RESOURCES, INC., a Delaware corporation, with an address at 45 West 10000 South, Suite 401, Sandy, Utah 84070 (hereinafter "ANDALEX") and INTERMOUNTAIN POWER AGENCY, a political subdivision of the State of Utah, with an address at 480 East 6400 South, Murray, Utah 84107 (hereinafter "IPA"), each having an undivided 50% ownership interest in the leasehold estate created by this Lease as tenants in common and collectively referred to herein as "Lessee," having a single address c/o ANDALEX Resources, Inc., 45 West 10000 South, Suite 401, Sandy, Utah 84070.

WITNESSETH:

That the State of Utah, as Lessor, in consideration of the rentals, royalties, and other financial consideration paid or required to be paid by Lessee, and the covenants of Lessee set forth below, does hereby GRANT AND LEASE to Lessee the exclusive right and privilege to explore for, drill for, mine, remove, transport, convey, cross-haul, commingle, and sell the coal located within the boundaries of the following-described tract of land (the "Leased Premises") located in Carbon County, State of Utah:

T. 14S., R. 13 E., SLB&M

Sec. 2: LOTS 1 THRU 4, S2N2, S2

T. 13., R. 13 E., SLB&M

Sec. 36: SW4.

Containing 801.24 acres, more or less.

Together with the right and privilege to make use of the surface (but only to the extent owned by Lessor) and subsurface of the Leased Premises for uses incident to the mining of coal by Lessee on the Leased Premises or on other lands under the control of Lessee or mined in connection with operations on the Leased Premises, including, but not limited to, conveying, storing, loading, hauling, commingling, cross-hauling, and otherwise transporting coal; excavating; removing, stockpiling, depositing and redepositing of surface materials; and the subsidence, mitigation, restoration and reclamation of the surface.

This Coal Mining Lease and Agreement is subject to, and Lessee hereby agrees to and accepts, the following covenants, terms, and conditions:

1. LEASED MINERALS.

1.1 Coal. This mineral lease covers coal, which shall mean and include black or brownish-black solid fossil fuels that have been subjected to the natural processes of coalification, and which fall within the classification of coal by rank as anthracitic, bituminous, sub-bituminous, or lignitic, together with closely associated substances which include, but are not limited to other hydrocarbon substances physically contained within the same geologic strata as the coal. In the event that minerals other than coal are discovered on or in the Leased Premises during lease operations, Lessee shall promptly notify the Lessor.

1.2 Coalbed Methane. To the extent that Lessor owns gas, coalbed methane or coal seam gas (collectively "coalbed methane") within the Leased Premises, Lessee may remove, vent, flare or capture such coalbed methane from the mine workings and the coal strata being mined and any overlying or underlying formations if such removal is necessary for safety reasons in the reasonable discretion of Lessee. If Lessee captures or uses such coalbed methane, it shall pay Lessor royalties on the value of such coalbed methane at the prevailing state royalty rate for natural gas, unless such royalties are expressly waived by Lessor. Except as expressly granted herein, the right to extract gas, coalbed methane and coal seam gas is not granted by this Lease.

1.3 No Warranty of Title. Lessor claims title to the mineral estate covered by this Lease. Lessor does not warrant title nor represent that no one will dispute the title asserted by Lessor. It is expressly agreed that Lessor shall not be liable to Lessee for any alleged deficiency in title to the mineral estate, nor shall Lessee become entitled to any refund for any rentals, bonuses, or royalties paid under this Lease in the event of title failure, except as provided in Utah Administrative Code R850-20-2100 (2002).

2. RESERVATIONS TO LESSOR. Subject to the exclusive rights and privileges granted to Lessee under this Lease, and further provided that Lessor shall refrain from taking actions with respect to the Leased Premises that may unreasonably interfere with Lessee's operations, Lessor hereby excepts and reserves from the operation of this Lease the following rights and privileges (to the extent that Lessor has the right to grant such rights and privileges):

2.1 Rights-of-Way and Easements. Lessor reserves the right, following consultation with the Lessee, to establish rights-of-way and easements upon, through or over the Leased Premises, under terms and conditions that will not unreasonably interfere with operations under this Lease, for roads, pipelines, electric transmission lines, transportation and utility corridors, mineral access, and any other purpose deemed reasonably necessary by Lessor.

2.2 Other Mineral Leases. Lessor reserves the right to enter into mineral leases and agreements with third parties covering minerals other than coal, under terms and conditions that will not

unreasonably interfere with operations under this Lease in accordance with Lessor's regulations, if any, governing multiple mineral development.

- 2.3 Use and Disposal of Surface. To the extent that Lessor owns the surface estate of the Leased Premises and subject to the rights granted to the Lessee pursuant to this Lease, Lessor reserves the right to use, lease, sell, or otherwise dispose of the surface estate or any part thereof. Lessor shall notify Lessee of any such sale, lease, or other disposition of the surface estate.
- 2.4 Previously Authorized Improvements. If authorized improvements have been placed upon the Leased Premises by a third party prior to the commencement of this Lease, Lessee shall allow the owner of such improvements to remove them within ninety (90) days after the Lease term commences. Nothing in this paragraph shall authorize Lessee to remove surface improvements where Lessor does not own the surface estate.
- 2.5 Rights Not Expressly Granted. Lessor further reserves all rights and privileges of every kind and nature, except as specifically granted in this Lease.

3. TERM OF LEASE; READJUSTMENT.

- 3.1 Primary Term. This Lease is granted for a "primary term" of ten (10) years commencing on the Effective Date and for a "secondary term" of an additional ten (10) years, subject to Lessee's compliance with the requirements of paragraph 3.3, Diligent Operations; Minimum Royalty.
- 3.2 Extension Beyond Secondary Term. Subject to Lessee's compliance with the other provisions of this Lease, this Lease shall remain in effect beyond the secondary term and for as long thereafter as coal is produced in commercial quantities from the Leased Premises, or from lands constituting either (i) a logical mining unit approved by the Bureau of Land Management containing the Leased Premises, or (ii) a mining unit, in which the recoverable coal reserves can be developed in an efficient, economical and orderly manner as a unit with due regard to the conservation of recoverable coal reserves. The second type of mining unit requires a determination by the Lessor that the criteria set forth in item (ii) have been satisfied. The satisfaction of either (i) or (ii) above shall mean that the Lease is contained within an "approved mining unit." For the purposes of this Lease, production of coal in commercial quantities shall mean production during each lease year of at least one per cent (1%) of the recoverable coal reserves within the Leased Premises or within lands constituting an approved mining unit which includes the Leased Premises, as such recoverable coal reserves are determined by Lessor after consultation with Lessee, subject to adjustment from time to time based upon reasonable justification from the Lessee.
- 3.3 Diligent Operations; Minimum Royalty. In the absence of actual production in commercial quantities as set forth in paragraph 3.2, Extension Beyond Secondary Term, this Lease shall remain in effect beyond the primary term only if the Lessee is engaged in diligent operations, exploration, research, or development activity (which development activity shall include, but not

be limited to, pursuit of required permits and approvals) which in Lessor's reasonable discretion is calculated to advance development or production of coal from the Leased Premises or lands constituting an approved mining unit which includes the Leased Premises, and Lessee pays an annual minimum royalty in advance on or before the anniversary date of the Effective Date. The minimum royalty shall be calculated by determining the production royalty that would be payable upon production of two and one-half per cent (2.5%) of the recoverable coal reserves within the Leased Premises, as such recoverable coal reserves are determined by Lessor after consultation with Lessee, subject to adjustment from time to time based upon reasonable justification from the Lessee. The unit value of the recoverable coal reserves for purposes of determining the minimum royalty shall be determined by Lessor using the methodology set forth in 43 Code of Federal Regulations §3483.4(c)(1)-(3) (1998). Minimum royalties paid by Lessee pursuant to this paragraph may be credited against production royalties accruing during the term of this Lease.

- 3.4 Expiration; Cessation of Production. This Lease may not be extended pursuant to paragraph 3.3, Diligent Operations; Minimum Royalty, beyond the end of the twentieth year after the Effective Date except by the actual production of coal in commercial quantities from the Leased Premises or from lands constituting an approved mining unit which includes the Leased Premises. After expiration of the secondary term, this Lease will expire of its own terms, without the necessity of any notice or action by Lessor, if Lessee ceases production of coal in commercial quantities for an entire lease year, unless the Lease is suspended pursuant to paragraph 16.3, Suspension.
- 3.5 Readjustment. At the end of the primary term and at the end of each period of ten (10) years thereafter, Lessor may reasonably readjust the terms and conditions of this Lease to reflect prevailing market conditions (including without limitation rental rates, minimum royalties, royalty rates and valuation methods, and provisions concerning reclamation). If within thirty (30) days after submission of the readjusted lease terms to the Lessee, the Lessee determines that any or all of the proposed readjusted terms and conditions are unacceptable, then Lessee shall so notify Lessor in writing and the parties shall attempt to resolve the objectionable term or condition. If the parties are unable to resolve the matter and agree upon the readjusted terms and conditions submitted by Lessor at the end of such ten (10) year period, Lessee shall forfeit any right to the continued extension of this lease, and the lease shall automatically terminate, provided that nothing herein shall be deemed to preclude Lessee from appealing any readjustment by Lessor pursuant to applicable law
- 3.6 Relinquishment. Lessee may relinquish all or portions of this Lease at any time by filing a written notice of relinquishment with Lessor. Lessor may disapprove any relinquishment if Lessee has failed to pay all rentals, royalties, and other amounts due and owing to the Lessor, if the lease is otherwise not in good standing, or if relinquishment would in Lessor's reasonable determination cause waste of economically recoverable coal. Lessee may not relinquish parcels smaller than a quarter-quarter section or surveyed lot. Upon approval, relinquishment shall relieve the Lessee of all future rental obligations as to the relinquished lands effective as of the

date of filing of the relinquishment, but shall not relieve Lessee from other obligations to the extent provided in paragraph 15.2, Effect of Termination.

4. BONUS BID. Lessee agrees to pay Lessor an initial bonus bid in the sum of Two Million Four Hundred Twelve Thousand Nine Hundred Dollars (\$2,412,900) as partial consideration for Lessor's issuance of this Lease, payable in twelve equal annual installments of \$201,075 commencing on the Effective Date. The unpaid balance of the bonus bid shall not bear interest; provided, however, that if this Lease is relinquished or otherwise terminated prior to the payment in full of the bonus bid, or if Lessee fails to make any bonus bid payment when due, the entire unpaid balance of the bonus bid shall immediately become due without regard to such relinquishment or termination, and such balance shall thereafter bear interest as provided in paragraph 16.2, Interest. Lessor may require ANDALEX to submit and maintain a letter of credit or other sufficient surety to secure Lessee's obligation to pay the unpaid balance of the bonus bid. The initial bonus bid may not be credited against any other bonus payments, annual rentals or royalties accruing under this Lease.
5. RENTALS. Lessee agrees to pay Lessor an annual rental of three dollars (\$3.00) for each acre and fractional part thereof within the Leased Premises. Lessee shall promptly pay annual rentals each year in advance on or before the anniversary date of the Effective Date. Lessee may not credit rentals against production royalties or against minimum royalties payable pursuant to paragraph 3.3, Diligent Operations; Minimum Royalty.

6. ROYALTIES.

- 6.1 Production Royalties. Lessee shall pay Lessor a production royalty of eight per cent (8%) of the value of all coal severed, removed and sold, used or otherwise disposed of from the Leased Premises. For all coal sold pursuant to an arm's-length contract, value shall be determined on the basis of the gross proceeds received by Lessee from the sale or disposition of such coal. Gross proceeds shall include all bonuses, allowances or other consideration of any nature received by Lessee for coal actually produced. For any coal that is sold or disposed of other than by an arms-length contract, or for coal that is used within the mine permit area containing the Leased Premises for generation of electricity or for gasification, liquefaction, in situ processing, or other method of extracting energy from such coal, the value of such coal shall be determined by Lessor with reference to (in order of priority): (i) comparable arms-length contracts or other dispositions of like-quality coal produced in the same coal field; (ii) prices reported for that coal to a public utility commission; (iii) prices reported to other governmental agencies; or (iv) other relevant information.
- 6.2 Allowable Deductions. It is expressly understood and agreed that none of Lessee's mining or production costs, including but not limited to costs for materials, labor, overhead, distribution, transportation within the mine permit area prior to the point of sale, loading, crushing, sizing, screening, or general and administrative activities, may be deducted in computing Lessor's royalty. All such costs shall be entirely borne by Lessee and are anticipated by the rate of royalty

set forth in this Lease. In the event that the point of sale for coal produced from this Lease is located outside the mine permit area boundary, Lessee may deduct the reasonable, actual costs of transportation of such coal from the mine permit area boundary to the point of sale from gross proceeds in computing Lessor's royalty; provided, however, that transportation deductions for coal transported by Lessee, Lessee's affiliates, or by non-arm's-length contract are subject to review and modification by Lessor. Lessee shall be allowed to deduct its actual, reasonable washing and treatment costs from gross proceeds in computing Lessor's royalty; provided, however, that, upon Lessor's request Lessee shall provide to Lessor appropriate justification to demonstrate that Lessee's costs are reasonable.

6.3 Reference to Federal Regulations. It is the intent of Lessor and Lessee that the calculation of the value of coal for royalty purposes be consistent with federal coal regulations governing the valuation of coal, except where this Lease expressly provides otherwise. In no event shall the value of coal used for calculation of royalties under this Lease be less than the value which would be obtained were federal royalty valuation regulations applied.

6.4 Royalty Payment. For all coal severed and removed from the Leased Premises that is used, sold, or otherwise disposed of during a particular month, Lessee shall pay royalties to Lessor on or before the end of the next succeeding month. Royalty payments shall be accompanied by a verified statement, in a form approved by Lessor, stating the amount of coal sold or otherwise disposed of, the gross proceeds accruing to Lessee, the calculation of allowable deductions, and any other information reasonably required by Lessor to verify production and disposition of the coal or coal products. In the event that Lessee uses or disposes of coal pursuant to a non-arm's-length contract, or uses coal for generation of electricity or for gasification, liquefaction, in situ processing, or other method of extracting energy from such coal, Lessee shall notify Lessor of such use or disposal on or before the end of the next succeeding month following such use or disposal, and shall pay royalties upon Lessee's good faith estimate of the value of such coal, subject to Lessor's right to determine the value of such coal pursuant to paragraph 6.1, Production Royalties.

6.5 Suspension, Waiver or Reduction of Rents or Royalties. Lessor, to the extent not prohibited by applicable law, is authorized to waive, suspend, or reduce the rental or minimum royalty, or reduce the royalty applicable with respect to the entire Lease, whenever in Lessor's judgment it is necessary to do so in order to promote development, or whenever in the Lessor's judgment the Lease cannot be successfully operated under the terms provided herein.

7. RECORDKEEPING; INSPECTION; AUDITS.

7.1 Registered Agent; Records. Lessee shall maintain a registered agent within the State of Utah to whom any and all notices may be sent by Lessor and upon whom process may be served. Lessee shall also maintain an office within the State of Utah containing originals or copies of all maps, engineering data, permitting materials, books, records or contracts (whether such documents are

in paper or electronic form) generated by Lessee that pertain in any way to coal production, output and valuation; mine operations; coal sales and dispositions; transportation costs; and calculation of royalties from the Leased Premises. Lessee shall maintain such documents for at least seven years after the date of the coal production to which the documents pertain.

- 7.2 Inspection. Lessor's employees and authorized agents at Lessor's sole risk and expense shall have the right to enter the Leased Premises to check scales as to their accuracy, and to go on any part of the Leased Premises to examine, inspect, survey and take measurements for the purposes of verifying production amounts and proper lease operations. Upon reasonable notice to Lessee, Lessor's employees and authorized agents shall further have the right to audit, examine and copy (at Lessor's expense) all documents described in paragraph 7.1, Registered Agent; Records, whether such documents are located at the mine site or elsewhere. Lessee shall furnish all conveniences necessary for said inspection, survey, or examination; provided, however, that such inspections shall be conducted in a manner that is in conformance with all applicable mine safety regulations and does not unreasonably interfere with Lessee's operations.
- 7.3 Geologic Information. In the event Lessee conducts core-drilling operations or other geologic evaluation of the Leased Premises, Lessor may inspect core samples, evaluations thereof, and proprietary geologic information concerning the Leased Premises.
- 7.4 Confidentiality. Any and all documents and geologic data obtained by Lessor through the exercise of its rights as set forth in paragraphs 7.2, Inspection., and 7.4, Geologic Information., may be declared confidential information by Lessee, in which event Lessor and its authorized agents shall maintain such documents and geologic data as protected records under the Utah Governmental Records Access Management Act or other applicable privacy statute, and shall not disclose the same to any third party without the written consent of Lessee, the order of a court of competent jurisdiction requiring such disclosure, or upon termination of this Lease or the cessation of mining operations in the approved mining unit whichever is the last to occur.

8. USE OF SURFACE ESTATE.

- 8.1 Lessor-Owned Surface. If Lessor owns the surface estate of all or some portion of the Leased Premises, by issuance of this Lease the Lessee has been granted the right to make use of such lands to the extent reasonably necessary and expedient for the economic operation of the leasehold. Lessee's right to surface use of Lessor-owned surface estate shall include the right to subside the surface. Such surface uses shall be exercised subject to the rights reserved to Lessor as provided in paragraph 2, RESERVATIONS TO LESSOR, and without unreasonable interference with the rights of any prior or subsequent lessee of Lessor.
- 8.2 Split-Estate Lands. If Lessor does not own the surface estate of any portion of the Leased Premises, Lessee's access to and use of the surface of such lands shall be determined by applicable law governing mineral development on split-estate lands, including without limitation

applicable statutes governing access by mineral owners to split estate lands, and reclamation and bonding requirements. Lessee shall indemnify, defend and hold Lessor harmless for all claims, causes of action, damages, costs and expenses (including attorney's fees and costs) arising out of or related to damage caused by Lessee's operations to surface lands or improvements owned by third parties.

9. APPLICABLE LAWS AND REGULATIONS; HAZARDOUS SUBSTANCES

9.1 Trust Lands Statute and Regulations. This Lease is issued pursuant to the provisions of Title 53C, Utah Code Annotated, 1953, as amended, and Lessee is subject to and shall comply with all current and future rules and regulations adopted by the School and Institutional Trust Lands Administration and its successor agencies.

9.2 Other Applicable Laws and Regulations. Lessee shall comply with all applicable federal, state and local statutes, regulations, and ordinances, including without limitation the Utah Coal Mining and Reclamation Act, applicable statutes and regulations relating to mine safety and health, and applicable statutes, regulations and ordinances relating to public health, pollution control, management of hazardous substances and environmental protection.

9.3 Hazardous Substances. Lessee [or other occupant pursuant to any agreement authorizing mining] shall not keep on or about the premises any hazardous substances, as defined under 42 U.S.C. ' 9601(14) or any other Federal environmental law, any regulated substance contained in or released from any underground storage tank, as defined by the Resource Conservation and Recovery Act, 42 U.S.C. ' 6991, *et seq*, or any substances defined and regulated as "hazardous" by applicable State law, (hereinafter, for the purposes of this Lease, collectively referred to as "Hazardous Substances") unless such substances are reasonably necessary in Lessee's mining operations, and the use of such substances or tanks is noted and approved in the Lessee's mining plan, and unless Lessee fully complies with all Federal, State and local laws, regulations, statutes, and ordinances, now in existence or as subsequently enacted or amended, governing Hazardous Substances. Lessee shall immediately notify Lessor, the Bureau of Land Management, the surface management agency, and any other Federal, State and local agency with jurisdiction over the Leased Premises, or contamination thereon, of (i) all reportable spills or releases of any Hazardous Substance affecting the Leased Premises, (ii) all failures to comply with any applicable Federal, state or local law, regulation or ordinance governing Hazardous Substances, as now enacted or as subsequently enacted or amended, (iii) all inspections of the Leased Premises by, or any correspondence, order, citations, or notifications from any regulatory entity concerning Hazardous Substances affecting the Leased Premises, (iv) all regulatory orders or fines or all response or interim cleanup actions taken by or proposed to be taken by any government entity or private Party concerning the Leased Premises.

9.5 Hazardous Substances Indemnity. Lessee [or other occupant pursuant to any agreement authorizing mining] shall indemnify, defend, and hold harmless Lessor and its agencies,

employees, officers, and agents with respect to any and all damages, costs, liabilities, fees (including attorneys' fees and costs), penalties (civil and criminal), and cleanup costs arising out of or in any way related to Lessee's use, disposal, transportation, generation, sale or location upon or affecting the Leased Premises of Hazardous Substances, as defined in paragraph 9.4 of this Lease. This indemnity shall extend to the actions of Lessee's employees, agents assigns, sublessees, contractors, subcontractors, licensees and invitees. Lessee shall further indemnify, defend and hold harmless Lessor from any and all damages, costs, liabilities, fees (including attorneys' fees and costs), penalties (civil and criminal), and cleanup costs arising out of or in any way related to any breach of the provisions of this Lease concerning Hazardous Substances. This indemnity is in addition to, and in no way limits, the general indemnity contained in paragraph 16.1 of this Lease.

9.6 Waste Certification. The Lessee, or their operating agent, shall provide upon abandonment, transfer of operation, assignment of rights, sealing-off of a mined area, and prior to lease relinquishment, certification to the Lessor, based upon a complete search of all the operator's records for the Lease, and upon its knowledge of past operations, there have been no reportable quantities of hazardous substances as defined in 40 Code of Federal Regulations '302.4, or used oil as defined in Utah Administrative Code R315-15, discharged (as defined at 33 U.S.C. '1321(a)(2)), deposited or released within the Leased Premises, either on the surface or underground, and that all remedial actions necessary have been taken to protect human health and the environment with respect to such substances. Lessee shall additionally provide to Lessor a complete list of all hazardous substances, hazardous materials, and their respective Chemical Abstracts Service Registry Numbers, and oil and petroleum products used or stored on, or delivered to, the Leased Premises. Such disclosure will be in addition to any other disclosure required by law or agreement.

10. BONDING.

10.1 Lease Bond Required. Upon the request of Lessor, Lessee shall execute and file with the Lessor a good and sufficient bond or other financial guarantee acceptable to Lessor in order to: (a) guarantee Lessee's performance of all covenants and obligations under this Lease, including Lessee's obligation to pay production royalties; and (b) ensure compensation for damage, if any, to the surface estate and any surface improvements. The Lease Bond shall meet all federal mineral lease bond requirements as described in 43 Code of Federal Regulations Subpart 3474.

10.2 Reclamation Bonding. The bond filed with the Utah Division of Oil, Gas and Mining ("UDOGM") in connection with the issuance of a mine permit which includes the Leased Premises shall be deemed to satisfy Lessor's bonding requirements with respect to Lessee's reclamation obligations under this Lease; provided, however, upon notice to Lessee and a public hearing with respect to the basis for its decision, the Lessor may, in its reasonable discretion, determine that the bond filed with UDOGM is insufficient to protect Lessor's interests. In such an event the Lessor shall enter written findings as to the basis for its calculation of the perceived

insufficiency and enter an order establishing the amount of additional bonding required. Lessee shall file any required additional bond with Lessor within thirty (30) days after demand by Lessor. Lessor may increase or decrease the amount of any additional bond from time to time in accordance with the same procedure.

- 10.3 Release of Additional Bond. Any additional bond required by Lessor pursuant to 10.2, Reclamation Bonding, may be released by Lessor at any time and shall be released no later than the time of final bond release by UDOGM with respect to the Leased Premises.

11. WATER RIGHTS.

- 11.1 Water Rights in Name of Lessor. If Lessee files to appropriate water for coal mining operations on the Leased Premises, the filing for such water right shall be made by Lessee in the name of Lessor at no cost to Lessor, and such water right shall become an appurtenance to the Leased Premises, subject to Lessee's right to use such water right at no cost during the term of this Lease.

- 11.2 Option to Purchase. If Lessee purchases or acquires an existing water right for coal mining operations on the Leased Premises, Lessor shall have the option to acquire that portion of such water right as was used on the Leased Premises upon expiration or termination of this Lease. The option price for such water right shall be the fair market value of the water right as of the date of expiration or termination of this Lease. Upon expiration or termination of this Lease, Lessee shall notify Lessor in writing of all water rights purchased or acquired by Lessee for coal mining operations on the Leased Premises and its estimate of the fair market value of such water right. Lessor shall then have forty-five (45) days to exercise its option to acquire the water by payment to Lessee of the estimated fair market value. If Lessor disagrees with Lessee's estimate of fair market value, Lessor shall notify Lessee of its disagreement within the 45 day option exercise period. The fair market value of the water right shall then be appraised by a single appraiser mutually acceptable to both parties, which appraisal shall be final and not subject to review or appeal. If the parties cannot agree upon the choice of an appraiser, the fair market value of the water right shall be determined by a court of competent jurisdiction. Conveyance of any water right pursuant to this paragraph shall be by quit claim deed.

12. ASSIGNMENT OR SUBLEASE; OVERRIDING ROYALTIES.

- 12.1 Consent Required. Lessee shall not assign or sublease this Lease in whole or in part, or otherwise assign or convey any rights or privileges granted by this Lease, including, without limitation, creation of overriding royalties or production payments, without the prior written consent of Lessor. Any assignment, sublease or other conveyance made without prior written consent of Lessor shall have no legal effect unless and until approved in writing by Lessor. Exercise of any right with respect to the Leased Premises in violation of this provision shall constitute a default under this Lease.

- 12.2 Binding Effect. All of the terms and provisions of this Lease shall be binding upon and shall inure to the benefit of the parties respective successors, assigns, and sublessees.
- 12.3 Limitation on Overriding Royalties. Lessor reserves the right to disapprove the creation of an overriding royalty or production payment that would, in Lessor's reasonable discretion, constitute an unreasonable economic burden upon operation of the Lease. In exercising its discretion to disapprove the creation of an overriding royalty, Lessor shall consult with Lessee and any third parties involved and shall prepare findings to evidence the basis of its decision. Cumulative overriding royalties of 2% or less shall be deemed presumptively reasonable unless special circumstances are shown by Lessor to exist.

13. OPERATIONS.

- 13.1 Permitting. Before Lessee commences exploration, drilling, or mining operations on the Leased Premises, it shall have obtained such permits and posted such bonds as may be required under applicable provisions of the Utah Coal Mining and Reclamation Act, the Surface Mining Control and Reclamation Act, and associated regulations, together with applicable regulations of the surface management agency. Lessee shall maintain any required permits in place for the duration of mining operations and reclamation. Upon request, Lessee shall provide Lessor with a copy of all regulatory filings relating to permitting matters.
- 13.2 Plan of Operations. Prior to the commencement of any underground mining operations on the Leased Premises, Lessee shall obtain Lessor's approval of a plan of operations for the Leased Premises. The plan of operations shall contain all information required to be contained in a federal Resource Recovery and Protection Plan, as described in 43 Code of Federal Regulations § 3482.1(b) and (c) (1998). Lessor may modify the proposed plan of operations as is needed to insure that there is no waste of economically recoverable coal reserves contained on the Leased Premises. In this context "waste" shall mean the inefficient utilization of, or the excessive or improper loss of an otherwise economically recoverable coal resource. Lessor shall notify Lessee in writing of its approval or modifications of the plan of operations. The plan of operations submitted by Lessee shall be deemed approved by Lessor if Lessor has not otherwise notified Lessee within sixty (60) days of filing.
- 13.3 Plan of Operations - Modification. In the event that material changes are required to the plan of operations during the course of mining, Lessee shall submit a modification of the plan of operations to the Lessor. Routine adjustments to the plan of operations based upon geologic circumstances encountered during day-to-day mining operations do not require the submission of a modification. If the proposed changes require emergency action by Lessor, then the Lessee shall so notify the Lessor at the time of submission of the modification and the parties shall use their best efforts to meet the Lessee's time schedule regarding implementation of the changes. Non-emergency modifications will be reviewed promptly by Lessor to insure that there is no waste of economically recoverable coal reserves pursuant to the plan of operations, as modified,

and Lessor shall notify lessee in writing of its approval or modification of the proposed modification. Modifications shall be deemed approved by Lessor if Lessor has not otherwise notified Lessee within thirty (30) days of filing.

- 13.4 Mine Maps. Lessee shall maintain at the mine office clear, accurate, and detailed maps of all actual and planned operations prepared and maintained in the manner prescribed by 43 Code of Federal Regulations §3482.3 (1998). Lessee shall provide copies of such maps to Lessor upon request.
- 13.5 Good Mining Practices. Lessee shall conduct exploration and mining operations on the Leased Premises in accordance with standard industry operating practices, and shall avoid waste of economically recoverable coal. Lessee shall comply with all regulations and directives of the Mine Safety and Health Administration or successor agencies for the health and safety of employees and workers. Lessee shall further comply with the performance standards for underground resource recovery set forth at 43 Code of Federal Regulations § 484.1(c) (1998); provided, however, that Lessor may waive such standards from time to time in its reasonable discretion, upon request by Lessee. Coal shall be mined from this Lease by underground methods only.
- 13.6 Mining Units. Lessor may approve the inclusion of the Leased Premises in a mining unit with federal, private or other non-state lands upon terms and conditions that it deems necessary to protect the interests of the Lessor, including without limitation segregation of production, accounting for commingled coal production, and minimum production requirements or minimum royalties for the Leased Premises.

14. EQUIPMENT; RESTORATION.

- 14.1 Equipment. Upon termination of this Lease, Lessee shall remove, and shall have the right to remove, all improvements, equipment, stockpiles, and dumps from the Leased Premises within six (6) months; provided, however, that Lessor may, at Lessor's sole risk and expense, and subject to Lessee's compliance with requirements imposed by UDOGM and MSHA, require Lessee to retain in place underground timbering supports, shaft linings, rails, and other installations reasonably necessary for future mining of the Leased Premises. All improvements and equipment remaining on the Leased Premises after six (6) months may be deemed forfeited to Lessor upon written notice of such forfeiture to Lessee. Lessee may abandon underground improvements, equipment of any type, stockpiles and dumps in place if such abandonment is in compliance with applicable law, and further provided that Lessee provides Lessor with financial or other assurances sufficient in Lessor's reasonable discretion to protect Lessor from future environmental liability with respect to such abandonment or any associated hazardous waste spills or releases. Lessee shall identify and locate on the mine map the location of all equipment abandoned on the Lease Premises.

14.2 Restoration and Reclamation. Upon termination of this Lease, Lessee shall reclaim the Leased Premises in accordance with the requirements of applicable law, including mine permits and reclamation plans on file with UDOGM. Lessee shall further abate any hazardous condition on or associated with the Leased Premises. Lessee and representatives of all governmental agencies having jurisdiction shall have the right to re-enter the Leased Premises for reclamation purposes for a reasonable period after termination of the Lease.

15. DEFAULT

15.1 Notice of Default; Termination. Upon Lessee's violation of or failure to comply with any of the terms, conditions or covenants set forth in this Lease, Lessor shall notify Lessee of such default by registered or certified mail, return receipt requested, at the last address for Lessee set forth in Lessor's files. Lessee shall then have thirty (30) days, or such longer period as may be granted in writing by Lessor, to either cure the default or request a hearing pursuant to the Lessor's administrative adjudication rules. In the event Lessee fails to cure the default or request a hearing within the specified time period, Lessor may cancel this Lease without further notice to or appeal by Lessee.

15.2 Effect of Termination. The termination of this Lease for any reason, whether through expiration, cancellation or relinquishment, shall not limit the rights of the Lessor to recover any royalties and/or damages for which Lessee may be liable, to recover on any bond on file, or to seek injunctive relief to enjoin continuing violations of the Lease terms. No remedy or election under this Lease shall be deemed exclusive, but shall, wherever possible, be cumulative with all other remedies available under this Lease, at law, or in equity. Lessee shall surrender the Leased Premises upon termination; however, the obligations of Lessee with respect to reclamation, indemnification and other continuing covenants imposed by this Lease shall survive the termination.

16. MISCELLANEOUS PROVISIONS.

16.1 Indemnity. Except as limited by paragraph 7.2, Inspection, Lessee shall indemnify and hold Lessor harmless for, from and against each and every claim, demand, liability, loss, cost, damage and expense, including, without limitation, attorneys' fees and court costs, arising in any way out of Lessee's occupation and use of the Leased Premises, including without limitation claims for death, personal injury, property damage, and unpaid wages and benefits. Lessee further agrees to indemnify and hold Lessor harmless for, from and against all claims, demands, liabilities, damages and penalties arising out of any failure of Lessee to comply with any of Lessee's obligations under this Lease, including without limitation attorneys' fees and court costs.

16.2 Interest. Except as set forth in paragraph 4, BONUS BID, interest shall accrue and be payable on all obligations arising under this Lease at such rate as may be set from time to time by rule

enacted by Lessor. Interest shall accrue and be payable, without necessity of demand, from the date each such obligation shall arise.

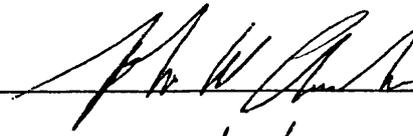
- 16.3 Suspension. In the event that Lessor in its reasonable discretion determines that suspension is necessary in the interests of conservation of the coal resource, or if Lessee has been prevented from performing any of its obligations or responsibilities under this Lease or from conducting mining operations by labor strikes, fires, floods, explosions, riots, adverse coal quality rendering the coal unmarketable, any unusual mining casualties or conditions, Acts of God, government restrictions or orders, severe weather conditions, or other extraordinary events beyond its control, then the time for performance of this Lease by Lessee shall be suspended during the continuance of such acts which prevent performance, excepting any payments due and owing to Lessor.
- 16.4 Consent to Suit; Jurisdiction. This Lease shall be governed by the laws of the State of Utah; Lessor and Lessee agree that all disputes arising out of this Lease shall be litigated only in the Third Judicial District Court for Salt Lake County, Utah; Lessee consents to the jurisdiction of such court; and Lessee shall not bring any action against Lessor without exhaustion of available administrative remedies and compliance with applicable requirements of the Utah Governmental Immunity Act.
- 16.5 No Waiver. No waiver of the breach of any provision of this Lease shall be construed as a waiver of any preceding or succeeding breach of the same or any other provision of this Lease, nor shall the acceptance of rentals or royalties by Lessor during any period of time in which Lessee is in default be deemed to be a waiver of such default.
- 16.6 Severability. The invalidity of any provision of this Lease, as determined by a court of competent jurisdiction, shall in no way affect the validity of any other provision hereof.
- 16.7 Entire Lease. This Lease, together with any attached stipulations, sets forth the entire agreement between Lessor and Lessee with respect to the subject matter of this Lease. No subsequent alteration or amendment to this Lease shall be binding upon Lessor and Lessee unless in writing and signed by each of them.

IN WITNESS WHEREOF, the parties have executed this Lease as of the date hereinabove first written.

APPROVED AS TO FORM:

Mark L. Shurtleff

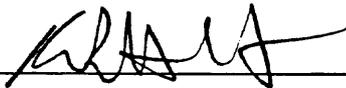
ATTORNEY GENERAL

By 

Form Approved: 3/26/03

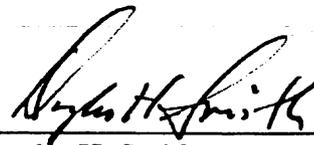
THE STATE OF UTAH, acting by and through the
SCHOOL AND INSTITUTIONAL TRUSTLANDS
ADMINISTRATION ("LESSOR")

KEVIN S. CARTER, DIRECTOR

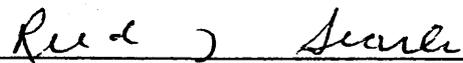
By 

LESSEE:

ANDALEX Resources, Inc.
a Delaware corporation

By: 
Douglas H. Smith
President

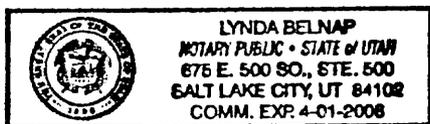
INTERMOUNTAIN POWER AGENCY,
a political subdivision of the State of Utah

By: 
Reed T. Searle
General Manager

STATE OF UTAH)
: ss.
COUNTY OF SALT LAKE)

On the 26th day of March, 2003, personally appeared before me Kevin S. Carter, who being by me duly sworn did say that he is Director of the School and Institutional Trust Lands Administration of the State of Utah and the signer of the above instrument, who duly acknowledged that he executed the same.

Given under my hand and seal this 26th day of March, 2003.



Lynda Belnap
Notary Public
Residing at: SLC UT.

My commission expires: 4-1-06

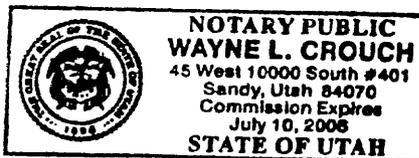
STATE OF UTAH)
: ss.
COUNTY OF SALT LAKE)

On the 28th day of March, 2003, personally appeared before me Douglas H. Smith, who being duly sworn did say that he is the President of ANDALEX Resources, Inc., and the signer of the above instrument, who duly acknowledged to me that said corporation executed the same.

Given under my hand and seal this 28th day of March, 2003.

Wayne L. Crouch
Notary Public
Residing at: Salt Lake County, Utah

My commission expires: 10 July 2006



STATE OF UTAH)

: ss.
COUNTY OF SALT LAKE)

On the 28th day of March, 2003, personally appeared before me Reed T. Searle, who being duly sworn did say that he is the General Manager of Intermountain Power Agency, who duly acknowledged to me that said political subdivision executed the same.

Given under my hand and seal this 28 day of March, 2003.

Brenda Pendleton
Notary Public
Residing at: South Jordan, Utah

My commission expires: 2/16/04



GRANT: Multiple

UTAH STATE LEASE FOR COAL
ML 49287-OBA

THIS COAL MINING LEASE AND AGREEMENT (the "Lease") is entered into and executed in duplicate as of APRIL 1, 2004 (the "Effective Date") by and between the STATE OF UTAH, acting by and through the SCHOOL AND INSTITUTIONAL TRUST LANDS ADMINISTRATION, 675 East 500 South, Suite 500, Salt Lake City, Utah 84102 ("Lessor"), and

ANDALEX Resources, Inc.
45 West 10000 South, Suite 401 &
Sandy, UT 84070

INTERMOUNTAIN POWER AGENCY
c/o Department of Water & Power of the City of Los Angeles
Attention: Coal Business Manager
Room 1263
111 North Hope Street
Los Angeles, California 90012

having business addresses as shown above (collectively "Lessee"), each with a 50% undivided interest.

WITNESSETH:

That the State of Utah, as Lessor, in consideration of the rentals, royalties, and other financial consideration paid or required to be paid by Lessee, and the covenants of Lessee set forth below, does hereby GRANT AND LEASE to Lessee the exclusive right and privilege to explore for, drill for, mine, remove, transport, convey, cross-haul, commingle, and sell the coal located within the boundaries of the following-described tract of land (the "Leased Premises") located in Carbon County, State of Utah:

T14S, R13E, SLB&M
Sec. 3: Lots 1, 2, 3, S2N2, S2
Sec. 10: W2NW4, SW4, SW4SE4

Containing 881.10 acres, more or less.

Together with the right and privilege to make use of the surface (but only to the extent owned by Lessor) and subsurface of the Leased Premises for uses incident to the mining of coal by Lessee on the Leased Premises or on other lands under the control of Lessee or mined in connection with operations on the Leased Premises, including, but not limited to, conveying, storing, loading, hauling, commingling, cross-hauling, and otherwise transporting coal; excavating; removing, stockpiling, depositing and redepositing of surface materials; and the subsidence, mitigation, restoration and reclamation of the surface.

This Coal Mining Lease and Agreement is subject to, and Lessee hereby agrees to and accepts, the following covenants, terms, and conditions:

LEASED MINERALS.

- 1.1 Coal. This mineral lease covers coal, which shall mean and include black or brownish-black solid fossil fuels that have been subjected to the natural processes of coalification, and which fall

within the classification of coal by rank as anthracitic, bituminous, sub-bituminous, or lignitic, together with closely associated substances which include, but are not limited to other hydrocarbon substances physically contained within the same geologic strata as the coal. In the event that minerals other than coal are discovered during lease operations, Lessee shall promptly notify the Lessor.

- 1.2 Coalbed Methane. To the extent that Lessor owns gas, coalbed methane or coal seam gas (collectively "coalbed methane") within the Leased Premises, Lessee may remove, vent, flare or capture such coalbed methane from the coal strata being mined and any overlying formations if such removal is necessary for safety reasons in the reasonable discretion of Lessee. If Lessee captures or uses such coalbed methane, it shall pay Lessor royalties on the value of such coalbed methane at the prevailing state royalty rate for natural gas, unless such royalties are expressly waived by Lessor. In the event that Lessor does not own coalbed methane within the Leased Premises, Lessee must obtain the consent of the owner of such coalbed methane prior to removal or capture of such gas. Except as expressly granted herein, the right to extract gas, coalbed methane and coal seam gas is not granted by this Lease.
- 1.3 No Warranty of Title. Lessor claims title to the mineral estate covered by this Lease. Lessor does not warrant title nor represent that no one will dispute the title asserted by Lessor. It is expressly agreed that Lessor shall not be liable to Lessee for any alleged deficiency in title to the mineral estate, nor shall Lessee become entitled to any refund for any rentals, bonuses, or royalties paid under this Lease in the event of title failure.

2. RESERVATIONS TO LESSOR. Subject to the exclusive rights and privileges granted to Lessee under this Lease, and further provided that Lessor shall refrain from taking actions with respect to the Leased Premises that may unreasonably interfere with Lessee's operations, Lessor hereby excepts and reserves from the operation of this Lease the following rights and privileges (to the extent that Lessor has the right to grant such rights and privileges):

- 2.1 Rights-of-Way and Easements. Lessor reserves the right, following consultation with the Lessee, to establish rights-of-way and easements upon, through or over the Leased Premises, under terms and conditions that will not unreasonably interfere with operations under this Lease, for roads, pipelines, electric transmission lines, transportation and utility corridors, mineral access, and any other purpose deemed reasonably necessary by Lessor.
- 2.2 Other Mineral Leases. Lessor reserves the right to enter into mineral leases and agreements with third parties covering minerals other than coal, under terms and conditions that will not unreasonably interfere with operations under this Lease in accordance with Lessor's regulations, if any, governing multiple mineral development.
- 2.3 Use and Disposal of Surface. To the extent that Lessor owns the surface estate of the Leased Premises and subject to the rights granted to the Lessee pursuant to this Lease, Lessor reserves the

right to use, lease, sell, or otherwise dispose of the surface estate or any part thereof. Lessor shall notify Lessee of any such sale, lease, or other disposition of the surface estate.

- 2.4 Previously Authorized Improvements. If authorized improvements have been placed upon the Leased Premises by a third party prior to the commencement of this Lease, Lessee shall allow the owner of such improvements to remove them within ninety (90) days after the Lease term commences. Nothing in this paragraph shall authorize Lessee to remove surface improvements where Lessor does not own the surface estate.
- 2.5 Rights Not Expressly Granted. Lessor further reserves all rights and privileges of every kind and nature, except as specifically granted in this Lease.

3. TERM OF LEASE; READJUSTMENT.

- 3.1 Primary Term. This Lease is granted for a "primary term" of ten (10) years commencing on the Effective Date and for a "secondary term" of an additional ten (10) years, subject to Lessee's compliance with the requirements of paragraph 3.3, Diligent Operations; Minimum Royalty.
- 3.2 Extension Beyond Secondary Term. Subject to Lessee's compliance with the other provisions of this Lease, this Lease shall remain in effect beyond the secondary term and for as long thereafter as coal is produced in commercial quantities from the Leased Premises, or from lands constituting either (i) a logical mining unit approved by the Bureau of Land Management containing the Leased Premises, or (ii) a mining unit, in which the recoverable coal reserves can be developed in an efficient, economical and orderly manner as a unit with due regard to the conservation of recoverable coal reserves. The second type of mining unit requires a determination by the Lessor that the criteria set forth in item (ii) have been satisfied. The satisfaction of either (i) or (ii) above shall mean that the Lease is contained within an "approved mining unit." For the purposes of this Lease, production of coal in commercial quantities shall mean production during each lease year of at least one per cent (1%) of the recoverable coal reserves within the Leased Premises or within lands constituting an approved mining unit which includes the Leased Premises, as such recoverable coal reserves are determined by Lessor after consultation with Lessee, subject to adjustment from time to time based upon reasonable justification from the Lessee.
- 3.3 Diligent Operations; Minimum Royalty. In the absence of actual production in commercial quantities as set forth in paragraph 3.2, Extension Beyond Secondary Term, this Lease shall remain in effect beyond the primary term only if the Lessee is engaged in diligent operations, exploration, research, or development activity (which development activity shall include, but not be limited to, pursuit of required permits and approvals) which in Lessor's reasonable discretion is calculated to advance development or production of coal from the Leased Premises or lands constituting an approved mining unit which includes the Leased Premises, and Lessee pays an annual minimum royalty in advance on or before the anniversary date of the Effective Date. The minimum royalty shall be calculated by determining the production royalty that would be payable

upon production of one per cent (1%) of the recoverable coal reserves within the Leased Premises, as such recoverable coal reserves are determined by Lessor after consultation with Lessee, subject to adjustment from time to time based upon reasonable justification from the Lessee. The unit value of the recoverable coal reserves for purposes of determining the minimum royalty shall be determined by Lessor using the methodology set forth in 43 Code of Federal Regulations §3483.4(c)(1)-(3) (1998). Minimum royalties paid by Lessee pursuant to this paragraph may be credited against production royalties accruing during the term of this Lease.

- 3.4 Expiration; Cessation of Production. This Lease may not be extended pursuant to paragraph 3.3, Diligent Operations; Minimum Royalty, beyond the end of the twentieth year after the Effective Date except by the actual production of coal in commercial quantities from the Leased Premises or from lands constituting an approved mining unit which includes the Leased Premises. After expiration of the secondary term, this Lease will expire of its own terms, without the necessity of any notice or action by Lessor, if Lessee ceases production of coal in commercial quantities for an entire lease year, unless the Lease is suspended pursuant to paragraph 16.3, Suspension.
- 3.5 Readjustment. At the end of the primary term and at the end of each period of ten (10) years thereafter, Lessor may readjust the terms and conditions of this Lease (including without limitation rental rates, minimum royalties, royalty rates and valuation methods, and provisions concerning reclamation). If within thirty (30) days after submission of the readjusted lease terms to the Lessee, the Lessee determines that any or all of the proposed readjusted terms and conditions are unacceptable, then Lessee shall so notify Lessor in writing and the parties shall attempt to resolve the objectionable term or condition. If the parties are unable to resolve the matter and agree upon the readjusted terms and conditions submitted by Lessor at the end of such ten (10) year period, Lessee shall forfeit any right to the continued extension of this lease, and the lease shall automatically terminate, provided that nothing herein shall be deemed to preclude Lessee from appealing any readjustment by Lessor pursuant to applicable law
- 3.6 Relinquishment. Lessee may relinquish all or portions of this Lease at any time by filing a written notice of relinquishment with Lessor. Lessor may disapprove any relinquishment if Lessee has failed to pay all rentals, royalties, and other amounts due and owing to the Lessor, if the lease is otherwise not in good standing, or if relinquishment would in Lessor's reasonable determination cause waste of economically recoverable coal. Lessee may not relinquish parcels smaller than a quarter-quarter section or surveyed lot. Upon approval, relinquishment shall relieve the Lessee of all future rental obligations as to the relinquished lands effective as of the date of filing of the relinquishment, but shall not relieve Lessee from other obligations to the extent provided in paragraph 15.2, Effect of Termination.
4. BONUS BID. Lessee agrees to pay Lessor, an initial bonus bid in the sum of \$1,400,000.00 as partial consideration for Lessor's issuance of this Lease, payable in not more than five equal annual installments of \$280,000.00. The first annual installment is due and payable upon submission of the bonus bid. Each subsequent annual installment shall be paid on or before each anniversary date of the effective date of the

lease until the total bonus bid has been paid in full. The unpaid balance of the bonus bid shall not bear interest; provided, however, that if this Lease is relinquished or otherwise terminated prior to the payment in full of the bonus bid, or if Lessee fails to make any bonus bid payment when due, the entire unpaid balance of the bonus bid shall immediately become due without regard to such relinquishment or termination, and such balance shall thereafter bear interest as provided in paragraph 16.2, Interest. Lessor may require Lessee to submit a bond or other sufficient surety to secure Lessee's obligation to pay the unpaid balance of the bonus bid. The initial bonus bid may not be credited against any other bonus payments, annual rentals or royalties accruing under the lease.

5. RENTALS. Lessee agrees to pay Lessor an annual rental of three dollars (\$3.00) for each acre and fractional part thereof within the Leased Premises. Lessee shall promptly pay annual rentals each year in advance on or before the anniversary date of the Effective Date. Lessee may not credit rentals against production royalties or against minimum royalties payable pursuant to paragraph 3.3, Diligent Operations; Minimum Royalty.

6. ROYALTIES.

6.1 Production Royalties. Lessee shall pay Lessor a production royalty of eight per cent (8%) of the value of all coal severed and removed from the Leased Premises. For all coal sold pursuant to an arm's-length contract, value shall be determined on the basis of the gross proceeds received by Lessee from the sale or disposition of such coal. Gross proceeds shall include all bonuses, allowances or other consideration of any nature received by Lessee for coal actually produced. For any coal that is sold or disposed of other than by an arms-length contract, or for coal that is used within the mine permit area containing the Leased Premises for generation of electricity or for gasification, liquefaction, in situ processing, or other method of extracting energy from such coal, the value of such coal shall be determined by Lessor with reference to (in order of priority): (i) comparable arms-length contracts or other dispositions of like-quality coal produced in the same coal field; (ii) prices reported for that coal to a public utility commission; (iii) prices reported to other governmental agencies; or (iv) other relevant information.

6.2 Allowable Deductions. It is expressly understood and agreed that none of Lessee's mining or production costs, including but not limited to costs for materials, labor, overhead, distribution, transportation within the mine permit area prior to the point of sale, loading, crushing, sizing, screening, or general and administrative activities, may be deducted in computing Lessor's royalty. All such costs shall be entirely borne by Lessee and are anticipated by the rate of royalty set forth in this Lease. In the event that the point of sale for coal produced from this Lease is located outside the mine permit area boundary, Lessee may deduct the reasonable, actual costs of transportation of such coal from the mine permit area boundary to the point of sale from gross proceeds in computing Lessor's royalty; provided, however, that transportation deductions for coal transported by Lessee, Lessee's affiliates, or by non-arm's-length contract are subject to review and modification by Lessor. Lessee shall be allowed to deduct its actual, reasonable washing and treatment costs from gross proceeds in computing Lessor's royalty; provided,

however, that, upon Lessor's request Lessee shall provide to Lessor appropriate justification to demonstrate that Lessee's costs are reasonable.

- 6.3 Reference to Federal Regulations. It is the intent of Lessor and Lessee that the calculation of the value of coal for royalty purposes be consistent with federal coal regulations governing the valuation of coal, except where this Lease expressly provides otherwise. In no event shall the value of coal used for calculation of royalties under this Lease be less than the value which would be obtained were federal royalty valuation regulations applied.
- 6.4 Royalty Payment. For all coal severed and removed from the Leased Premises that is used, sold, transported or otherwise disposed of during a particular month, Lessee shall pay royalties to Lessor on or before the end of the next succeeding month. Royalty payments shall be accompanied by a verified statement, in a form approved by Lessor, stating the amount of coal sold or otherwise disposed of, the gross proceeds accruing to Lessee, the calculation of allowable deductions, and any other information reasonably required by Lessor to verify production and disposition of the coal or coal products. In the event that Lessee uses or disposes of coal pursuant to a non-arm's-length contract, or uses coal for generation of electricity or for gasification, liquefaction, in situ processing, or other method of extracting energy from such coal, Lessee shall notify Lessor of such use or disposal on or before the end of the next succeeding month following such use or disposal, and shall pay royalties upon Lessee's good faith estimate of the value of such coal, subject to Lessor's right to determine the value of such coal pursuant to paragraph 6.1, Production Royalties.
- 6.5 Suspension, Waiver or Reduction of Rents or Royalties. Lessor, to the extent not prohibited by applicable law, is authorized to waive, suspend, or reduce the rental or minimum royalty, or reduce the royalty applicable with respect to the entire Lease, whenever in Lessor's judgment it is necessary to do so in order to promote development, or whenever in the Lessor's judgment the Lease cannot be successfully operated under the terms provided herein.

7. RECORDKEEPING; INSPECTION; AUDITS.

- 7.1 Registered Agent; Records. Lessee shall maintain a registered agent within the State of Utah to whom any and all notices may be sent by Lessor and upon whom process may be served. Lessee shall also maintain an office within the State of Utah containing originals or copies of all maps, engineering data, permitting materials, books, records or contracts (whether such documents are in paper or electronic form) generated by Lessee that pertain in any way to coal production, output and valuation; mine operations; coal sales and dispositions; transportation costs; and calculation of royalties from the Leased Premises. Lessee shall maintain such documents for at least seven years after the date of the coal production to which the documents pertain.
- 7.2 Inspection. Lessor's employees and authorized agents at Lessor's sole risk and expense shall have the right to enter the Leased Premises to check scales as to their accuracy, and to go on any part of

the Leased Premises to examine, inspect, survey and take measurements for the purposes of verifying production amounts and proper lease operations. Upon reasonable notice to Lessee, Lessor's employees and authorized agents shall further have the right to audit, examine and copy (at Lessor's expense) all documents described in paragraph 7.1, Registered Agent; Records, whether such documents are located at the mine site or elsewhere. Lessee shall furnish all conveniences necessary for said inspection, survey, or examination; provided, however, that such inspections shall be conducted in a manner that is in conformance with all applicable mine safety regulations and does not unreasonably interfere with Lessee's operations.

- 7.3 Federal Inspections. Lessee agrees that Bureau of Land Management ("BLM") agents authorized by the Lessor may conduct underground inspections of the Leased Premises.
- 7.4 Geologic Information. In the event Lessee conducts core-drilling operations or other geologic evaluation of the Leased Premises, Lessor may inspect core samples, evaluations thereof, and proprietary geologic information concerning the Leased Premises.
- 7.5 Confidentiality. Any and all documents and geologic data obtained by Lessor through the exercise of its rights as set forth in paragraphs 7.2, Inspection., and 7.4, Geologic Information., may be declared confidential information by Lessee, in which event Lessor and its authorized agents shall maintain such documents and geologic data as protected records under the Utah Governmental Records Access Management Act or other applicable privacy statute and shall not disclose the same to any third party without the written consent of Lessee, the order of a court of competent jurisdiction requiring such disclosure, or upon termination of this Lease.

8. USE OF SURFACE ESTATE.

- 8.1 Lessor-Owned Surface. If Lessor owns the surface estate of all or some portion of the Leased Premises, by issuance of this Lease the Lessee has been granted the right to make use of such lands to the extent reasonably necessary and expedient for the economic operation of the leasehold. Lessee's right to surface use of Lessor-owned surface estate shall include the right to subside the surface. Such surface uses shall be exercised subject to the rights reserved to Lessor as provided in paragraph 2, RESERVATIONS TO LESSOR, and without unreasonable interference with the rights of any prior or subsequent lessee of Lessor.
- 8.2 Split-Estate Lands. If Lessor does not own the surface estate of any portion of the Leased Premises, Lessee's access to and use of the surface of such lands shall be determined by applicable law governing mineral development on split-estate lands, including without limitation applicable statutes governing access by mineral owners to split estate lands, and reclamation and bonding requirements. Lessee shall indemnify, defend and hold Lessor harmless for all claims, causes of action, damages, costs and expenses (including attorney's fees and costs) arising out of or related to damage caused by Lessee's operations to surface lands or improvements owned by third parties.

9. APPLICABLE LAWS AND REGULATIONS; HAZARDOUS SUBSTANCES

- 9.1 Trust Lands Statute and Regulations. This Lease is issued pursuant to the provisions of Title 53C, Utah Code Annotated, 1953, as amended, and Lessee is subject to and shall comply with all current and future rules and regulations adopted by the School and Institutional Trust Lands Administration.
- 9.2 Other Applicable Laws and Regulations. Lessee shall comply with all applicable federal, state and local statutes, regulations, and ordinances, including without limitation the Utah Coal Mining and Reclamation Act, applicable statutes and regulations relating to mine safety and health, and applicable statutes, regulations and ordinances relating to public health, pollution control, management of hazardous substances and environmental protection.
- 9.3 Hazardous Substances. Lessee [or other occupant pursuant to any agreement authorizing mining] shall not keep on or about the premises any hazardous substances, as defined under 42 U.S.C. § 9601(14) or any other Federal environmental law, any regulated substance contained in or released from any underground storage tank, as defined by the Resource Conservation and Recovery Act, 42 U.S.C. § 6991, *et seq.*, or any substances defined and regulated as "hazardous" by applicable State law, (hereinafter, for the purposes of this Lease, collectively referred to as "Hazardous Substances") unless such substances are reasonably necessary in Lessee's mining operations, and the use of such substances or tanks is noted and approved in the Lessee's mining plan, and unless Lessee fully complies with all Federal, State and local laws, regulations, statutes, and ordinances, now in existence or as subsequently enacted or amended, governing Hazardous Substances. Lessee shall immediately notify Lessor, the Trust Lands Administration, the surface management agency, and any other Federal, State and local agency with jurisdiction over the Leased Premises, or contamination thereon, of (i) all reportable spills or releases of any Hazardous Substance affecting the Leased Premises, (ii) all failures to comply with any applicable Federal, state or local law, regulation or ordinance governing Hazardous Substances, as now enacted or as subsequently enacted or amended, (iii) all inspections of the Leased Premises by, or any correspondence, order, citations, or notifications from any regulatory entity concerning Hazardous Substances affecting the Leased Premises, (iv) all regulatory orders or fines or all response or interim cleanup actions taken by or proposed to be taken by any government entity or private Party concerning the Leased Premises.
- 9.4 Hazardous Substances Indemnity. Lessee [or other occupant pursuant to any agreement authorizing mining] shall indemnify, defend, and hold harmless Lessor its agencies, employees, officers, and agents with respect to any and all damages, costs, liabilities, fees (including attorneys' fees and costs), penalties (civil and criminal), and cleanup costs arising out of or in any way related to Lessee's use, disposal, transportation, generation, sale or location upon or affecting the Leased Premises of Hazardous Substances, as defined in paragraph 9.4 of this Lease. This

indemnity shall extend to the actions of Lessee's employees, agents assigns, sublessees, contractors, subcontractors, licensees and invitees. Lessee shall further indemnify, defend and hold harmless Lessor from any and all damages, costs, liabilities, fees (including attorneys' fees and costs), penalties (civil and criminal), and cleanup costs arising out of or in any way related to any breach of the provisions of this Lease concerning Hazardous Substances. This indemnity is in addition to, and in no way limits, the general indemnity contained in paragraph 16.1 of this Lease.

- 9.5 Waste Certification. The Lessee shall provide upon abandonment, transfer of operation, assignment of rights, sealing-off of a mined area, and prior to lease relinquishment, certification to the Lessor and the Trust Lands Administration that, based upon a complete search of all the operator's records for the Lease, and upon its knowledge of past operations, there have been no reportable quantities of hazardous substances as defined in 40 Code of Federal Regulations §302.4, or used oil as defined in Utah Administrative Code R315-15, discharged (as defined at 33 U.S.C. §1321(a)(2)), deposited or released within the Leased Premises, either on the surface or underground, and that all remedial actions necessary have been taken to protect human health and the environment with respect to such substances. Lessee shall additionally provide to Lessor a complete list of all hazardous substances, hazardous materials, and their respective Chemical Abstracts Service Registry Numbers, and oil and petroleum products used or stored on, or delivered to, the Leased Premises. Such disclosure will be in addition to any other disclosure required by law or agreement.

BONDING.

- 10.1 Lease Bond Required. At the time this Lease is executed, Lessee shall execute and file with the Lessor a good and sufficient bond or other financial guarantee acceptable to Lessor in order to: (a) guarantee Lessee's performance of all covenants and obligations under this Lease, including Lessee's obligation to pay royalties; and (b) ensure compensation for damage, if any, to the surface estate and any surface improvements. The Lease Bond shall meet all federal mineral lease bond requirements as described in 43 Code of Federal Regulations Subpart 3474. The Lease Bond shall further provide that upon forfeiture of the Leased Premises to the State of Utah, the Lease Bond shall be payable to the Trust Lands Administration.
- 10.2 Reclamation Bonding. The bond filed with the Utah Division of Oil, Gas and Mining ("UDOGM") in connection with the issuance of a mine permit which includes the Leased Premises shall be deemed to satisfy Lessor's bonding requirements with respect to Lessee's reclamation obligations under this Lease; provided, however, upon notice to Lessee and a public hearing with respect to the basis for its decision, the Lessor may, in its reasonable discretion, determine that the bond filed with UDOGM is insufficient to protect Lessor's interests. In such an event the Lessor shall enter written findings as to the basis for its calculation of the perceived insufficiency and enter an order establishing the amount of additional bonding required. Lessee shall file any required additional bond with Lessor within thirty (30) days after demand by Lessor.

Lessor may increase or decrease the amount of any additional bond from time to time in accordance with the same procedure.

- 10.3 Release of Additional Bond. Any additional bond required by Lessor pursuant to 10.2, Reclamation Bonding, may be released by Lessor at any time and shall be released no later than the time of final bond release by UDOGM with respect to the Leased Premises.

11. WATER RIGHTS.

- 11.1 Water Rights in Name of Lessor. If Lessee files to appropriate water for coal mining operations on the Leased Premises, the filing for such water right shall be made by Lessee in the name of Lessor at no cost to Lessor, and such water right shall become an appurtenance to the Leased Premises, subject to Lessee's right to use such water right at no cost during the term of this Lease.
- 11.2 Option to Purchase. If Lessee purchases or acquires an existing water right for coal mining operations on the Leased Premises, Lessor shall have the option to acquire that portion of such water right as was used on the Leased Premises upon expiration or termination of this Lease. The option price for such water right shall be the fair market value of the water right as of the date of expiration or termination of this Lease. Upon expiration or termination of this Lease, Lessee shall notify Lessor in writing of all water rights purchased or acquired by Lessee for coal mining operations on the Leased Premises and its estimate of the fair market value of such water right. Lessor shall then have forty-five (45) days to exercise its option to acquire the water by payment to Lessee of the estimated fair market value. If Lessor disagrees with Lessee's estimate of fair market value, Lessor shall notify Lessee of its disagreement within the 45 day option exercise period. The fair market value of the water right shall then be appraised by a single appraiser mutually acceptable to both parties, which appraisal shall be final and not subject to review or appeal. If the parties cannot agree upon the choice of an appraiser, the fair market value of the water right shall be determined by a court of competent jurisdiction. Conveyance of any water right pursuant to this paragraph shall be by quit claim deed.

12. ASSIGNMENT OR SUBLEASE; OVERRIDING ROYALTIES.

- 12.1 Consent Required. Lessee shall not assign or sublease this Lease in whole or in part, or otherwise assign or convey any rights or privileges granted by this Lease, including, without limitation, creation of overriding royalties or production payments, without the prior written consent of Lessor. Any assignment, sublease or other conveyance made without prior written consent of Lessor shall have no legal effect unless and until approved in writing by Lessor. Exercise of any right with respect to the Leased Premises in violation of this provision shall constitute a default under this Lease.
- 12.2 Binding Effect. All of the terms and provisions of this Lease shall be binding upon and shall inure to the benefit of their respective successors, assigns, and sublessees.

- 12.3 Limitation on Overriding Royalties. Lessor reserves the right to disapprove the creation of an overriding royalty or production payment that would, in Lessor's reasonable discretion, constitute an unreasonable economic burden upon operation of the Lease. In exercising its discretion to disapprove the creation of an overriding royalty, Lessor shall consult with Lessee and any third parties involved and shall prepare findings to evidence the basis of its decision. Cumulative overriding royalties of 2% or less shall be deemed presumptively reasonable unless special circumstances are shown by Lessor to exist.

13. OPERATIONS.

- 13.1 Permitting. Before Lessee commences exploration, drilling, or mining operations on the Leased Premises, it shall have obtained such permits and posted such bonds as may be required under applicable provisions of the Utah Coal Mining and Reclamation Act, the Surface Mining Control and Reclamation Act, and associated regulations, together with applicable regulations of the surface management agency. Lessee shall maintain any required permits in place for the duration of mining operations and reclamation. Upon request, Lessee shall provide Lessor with a copy of all regulatory filings relating to permitting matters.
- 13.2 Plan of Operations. Prior to the commencement of any underground mining operations on the Leased Premises, Lessee shall obtain Lessor's approval of a plan of operations for the Leased Premises. The plan of operations shall contain all information required to be contained in a federal Resource Recovery and Protection Plan, as described in 43 Code of Federal Regulations § 3482.1(b) and (c) (1998). Lessor may modify the proposed plan of operations as is needed to insure that there is no waste of economically recoverable coal reserves contained on the Leased Premises. In this context "waste" shall mean the inefficient utilization of, or the excessive or improper loss of an otherwise economically recoverable coal resource. Lessor shall notify Lessee in writing of its approval or modifications of the plan of operations. The plan of operations submitted by Lessee shall be deemed approved by Lessor if Lessor has not otherwise notified Lessee within sixty (60) days of filing.
- 13.3 Plan of Operations - Modification. In the event that material changes are required to the plan of operations during the course of mining, Lessee shall submit a modification of the plan of operations to the Lessor. Routine adjustments to the plan of operations based upon geologic circumstances encountered during day-to-day mining operations do not require the submission of a modification. If the proposed changes require emergency action by Lessor, then the Lessee shall so notify the Lessor at the time of submission of the modification and the parties shall use their best efforts to meet the Lessee's time schedule regarding implementation of the changes. Non-emergency modifications will be reviewed promptly by Lessor to insure that there is no waste of economically recoverable coal reserves pursuant to the plan of operations, as modified, and Lessor shall notify lessee in writing of its approval or modification of the proposed modification.

- 13.4 Mine Maps. Lessee shall maintain at the mine office clear, accurate, and detailed maps of all actual and planned operations prepared and maintained in the manner prescribed by 43 Code of Federal Regulations § 3482.3 (1998). Lessee shall provide copies of such maps to Lessor upon request.
- 13.5 Good Mining Practices. Lessee shall conduct exploration and mining operations on the Leased Premises in accordance with standard industry operating practices, and shall avoid waste of economically recoverable coal. Lessee shall comply with all regulations and directives of the Mine Safety and Health Administration or successor agencies for the health and safety of employees and workers. Lessee shall further comply with the performance standards for underground resource recovery set forth at 43 Code of Federal Regulations § 3484.1(c) (1998); provided, however, that Lessor may waive such standards from time to time in its reasonable discretion, upon request by Lessee. Coal shall be mined from this Lease by underground methods only.
- 13.6 Mining Units. Lessor may approve the inclusion of the Leased Premises in a mining unit with federal, private or other non-state lands upon terms and conditions that it deems necessary to protect the interests of the Lessor, including without limitation segregation of production, accounting for commingled coal production, and minimum production requirements or minimum royalties for the Leased Premises.

14. EQUIPMENT; RESTORATION.

- 14.1 Equipment. Upon termination of this Lease, Lessee shall remove, and shall have the right to remove, all improvements, equipment, stockpiles, and dumps from the Leased Premises within six (6) months; provided, however, that Lessor may, at Lessor's sole risk and expense, and subject to Lessee's compliance with requirements imposed by UDOGM and MSHA, require Lessee to retain in place underground timbering supports, shaft linings, rails, and other installations reasonably necessary for future mining of the Leased Premises. All improvements and equipment remaining on the Leased Premises after six (6) months may be deemed forfeited to Lessor upon written notice of such forfeiture to Lessee. Lessee may abandon underground improvements, equipment of any type, stockpiles and dumps in place if such abandonment is in compliance with applicable law, and further provided that Lessee provides Lessor with financial or other assurances sufficient in Lessor's reasonable discretion to protect Lessor from future environmental liability with respect to such abandonment or any associated hazardous waste spills or releases. Lessee shall identify and locate on the mine map the location of all equipment abandoned on the Lease Premises.
- 14.2 Restoration and Reclamation. Upon termination of this Lease, Lessee shall reclaim the Leased Premises in accordance with the requirements of applicable law, including mine permits and reclamation plans on file with UDOGM. Lessee shall further abate any hazardous condition on or

associated with the Leased Premises. Lessee and representatives of all governmental agencies having jurisdiction shall have the right to re-enter the Leased Premises for reclamation purposes for a reasonable period after termination of the Lease.

15. DEFAULT

- 15.1 Notice of Default; Termination. Upon Lessee's violation of or failure to comply with any of the terms, conditions or covenants set forth in this Lease, Lessor shall notify Lessee of such default by registered or certified mail, return receipt requested, at the last address for Lessee set forth in Lessor's files. Lessee shall then have thirty (30) days, or such longer period as may be granted in writing by Lessor, to either cure the default or request a hearing pursuant to the Lessor's administrative adjudication rules. In the event Lessee fails to cure the default or request a hearing within the specified time period, Lessor may cancel this Lease without further notice to or appeal by Lessee.
- 15.2 Effect of Termination. The termination of this Lease for any reason, whether through expiration, cancellation or relinquishment, shall not limit the rights of the Lessor to recover any royalties and/or damages for which Lessee may be liable, to recover on any bond on file, or to seek injunctive relief to enjoin continuing violations of the Lease terms. No remedy or election under this Lease shall be deemed exclusive, but shall, wherever possible, be cumulative with all other remedies available under this Lease, at law, or in equity. Lessee shall surrender the Leased Premises upon termination; however, the obligations of Lessee with respect to reclamation, indemnification and other continuing covenants imposed by this Lease shall survive the termination.

16. MISCELLANEOUS PROVISIONS.

- 16.1 Indemnity. Except as limited by paragraph 7.2, Inspection, Lessee shall indemnify and hold Lessor harmless for, from and against each and every claim, demand, liability, loss, cost, damage and expense, including, without limitation, attorneys' fees and court costs, arising in any way out of Lessee's occupation and use of the Leased Premises, including without limitation claims for death, personal injury, property damage, and unpaid wages and benefits. Lessee further agrees to indemnify and hold Lessor harmless for, from and against all claims, demands, liabilities, damages and penalties arising out of any failure of Lessee to comply with any of Lessee's obligations under this Lease, including without limitation attorneys' fees and court costs.
- 16.2 Interest. Except as set forth in paragraph 4, BONUS BID, interest shall accrue and be payable on all obligations arising under this Lease at such rate as may be set from time to time by rule enacted by Lessor. Interest shall accrue and be payable, without necessity of demand, from the date each such obligation shall arise.

- 16.3 Suspension. In the event that Lessor in its reasonable discretion determines that suspension is necessary in the interests of conservation of the coal resource, or if Lessee has been prevented from performing any of its obligations or responsibilities under this Lease or from conducting mining operations by labor strikes, fires, floods, explosions, riots, any unusual mining casualties or conditions, Acts of God, government restrictions or orders, severe weather conditions, or other extraordinary events beyond its control, then the time for performance of this Lease by Lessee shall be suspended during the continuance of such acts which prevent performance, excepting any payments due and owing to Lessor.
- 16.4 Consent to Suit; Jurisdiction. This Lease shall be governed by the laws of the State of Utah. Lessor and Lessee agree that all disputes arising out of this Lease shall be litigated only in the Third Judicial District Court for Salt Lake County, Utah. Lessee consents to the jurisdiction of such court. Lessee shall not bring any action against Lessor without exhaustion of available administrative remedies and compliance with applicable requirements of the Utah Governmental Immunity Act.
- 16.5 No Waiver. No waiver of the breach of any provision of this Lease shall be construed as a waiver of any preceding or succeeding breach of the same or any other provision of this Lease, nor shall the acceptance of rentals or royalties by Lessor during any period of time in which Lessee is in default be deemed to be a waiver of such default.
- 16.6 Severability. The invalidity of any provision of this Lease, as determined by a court of competent jurisdiction, shall in no way affect the validity of any other provision hereof.
- 16.7 Special Stipulations. The special stipulations set forth in Exhibit "A" to this Lease are hereby incorporated into and made an integral part of this Lease.
- 16.8 Entire Lease. This Lease, together with any attached stipulations, sets forth the entire agreement between Lessor and Lessee with respect to the subject matter of this Lease. No subsequent alteration or amendment to this Lease shall be binding upon Lessor and Lessee unless in writing and signed by each of them.

IN WITNESS WHEREOF, the parties have executed this Lease as of the date hereinabove first written.

APPROVED AS TO FORM:
MARK L. SHURTLEFF

ATTORNEY GENERAL

By 

Form Approved: 2/26/04

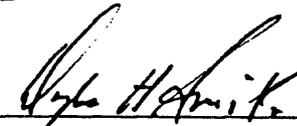
THE STATE OF UTAH, acting by and through the
SCHOOL AND INSTITUTIONAL TRUST
LANDS ADMINISTRATION ("LESSOR")

KEVIN S. CARTER, DIRECTOR

By 
Thomas B. Faddies, Assistant Director/Minerals

School & Institutional Trust Lands Administration - LESSOR

ANDALEX RESOURCES, INC.
LESSEE

By: 
Its: Douglas H. Smith, President

&

INTERMOUNTAIN POWER AGENCY
LESSEE

By: Reed J Scoble
Its: Gen. Manager

STATE OF UTAH)
COUNTY OF SALT LAKE)

On the 22 day of March, 2004, personally appeared before me THOMAS B. FADDIES who duly sworn did say that he is Assistant Director of the School & Institutional Trust Lands Administration of the State of Utah and the signer of the above instrument, who duly acknowledged that he executed the same.

Given under my hand and seal this 22 day of March, 2004.

Diane M. Durrant NOTARY PUBLIC, residing at: Layton, UT
My Commission Expires: March 29, 2007

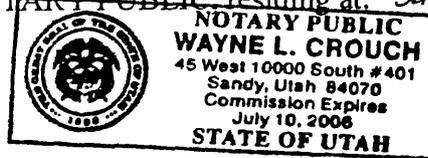


STATE OF UTAH)
COUNTY OF SALT LAKE)

On the 17th day of March, 2004, personally appeared before me Douglas H. Smith, who being duly sworn did say that he is an officer of ANDALEX Resources, Inc. and that said instrument was signed in behalf of said corporation by resolution of its Board of Directors, and said Douglas H. Smith acknowledged to me that said corporation executed the same.

Given under my hand and seal this 17th day of March, 2004.

Wayne L Crouch NOTARY PUBLIC, residing at: Salt Lake County, UTAH
My Commission Expires: 10 July 2006



STATE OF)
COUNTY OF)

On the 19 day of March, 2004, personally appeared before me Reed T. Searke, who being duly sworn did say that he is an officer of INTERMOUNTAIN POWER AGENCY and that said instrument was signed in behalf of said corporation by resolution of its Board of Directors, and said Reed T. Searke acknowledged to me that said corporation executed the same.

Given under my hand and seal this 19 day of March, 2004.

NOTARY PUBLIC, residing at: Salt Lake County, UT.

My Commission Expires:



Krista R Paull

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R645-301-300 CHAPTER 3**

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APPENDIX 3-1A	Douglas Fir/Maple Community Reference Area (New): West Ridge Project Mine Area
APPENDIX 3-2	West Ridge Project Raptor Survey
APPENDIX 3-2A	DWR Raptor Survey (June 17,2004)
APPENDIX 3-3	Wildlife Inventory
APPENDIX 3-4	Correspondence - Threatened and Endangered Species
APPENDIX 3-4A	Updated Threatened and Endangered Species List
APPENDIX 3-5	Plant Communities of the West Ridge Project Proposed Topsoil Borrow Area
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APPENDIX 3-11	Letter from DWR regarding Yellow-Billed Cuckoo
APPENDIX 3-12	A Survey of the Riparian Plant Communities near Grassy Trail Creek for the West Ridge Mine (Mt. Nebo Scientific)

R645-301-321 VEGETATION INFORMATION

321.100 Vegetation types for the region are shown on Map 3-1 (a generalized map depicting regional vegetation types) for the permit area and surrounding area. This information was derived from mapping done by Dr. Patrick Collins, Mt. Nebo Scientific. The vegetation map is presented as an overview of the regional vegetation and based on aerial photographs taken in June 1997. The general vegetation type listed for each different area constitutes the generally predominate vegetation for that area.

A vegetation survey of the proposed disturbed area in C Canyon and the proposed borrow area west of C Canyon was performed during June 1997 by Dr. Patrick Collins of Mt. Nebo Scientific. The survey entitled "Plant Communities of the West Ridge Project Mine Area" is appended as Appendix 3-1. A survey and general description of the riparian habitat near Grassy Trail Creek within the permit area was conducted by Mt. Nebo Scientific, Inc. during the growing season of 2002. This report is included in Appendix 3-12, "A Survey of the Riparian Plant Communities Near Grassy Trail Creek for the West Ridge Mine". The riparian areas along Grassy Trail Creek are shown on Map 3-1 as interpreted from aerial photographs. **The plant communities located within the Penta Creek fee area includes Aspen, Sagebrush/Grass, Mountain Brush and Riparian. Mining in the area is more than 2000' deep and will therefore have no impact to surface vegetation.**

C Canyon is a narrow, rugged box canyon dissected by ephemeral drainages. The main canyon drainage forks about one half mile up the canyon with the main branch continuing northeastward and the left fork cutting off to the north. The drainage bottom is dry, rocky and strewn with branches, leaves and other vegetative debris. The canyon appears to be very dry with no sign of runoff down the main or side channels. Due to the dryness of this drainage, no riparian vegetation exists along the drainage channels in C Canyon. Vegetation for forage in the canyons is also limited due to the steep, rocky slopes of the canyons.

Vegetation within the proposed mine site disturbed area is depicted on Map 3-2, Mine Site Vegetation Map. Also included on this map are the reference areas for the mine yard disturbed area. The reference area for the Douglas Fir/Maple vegetation type is shown on Map 3-1. Specific information on vegetation species and productivity at these sites is included in Appendix 3-1.

The proposed substitute topsoil borrow area was also mapped during the June 1997 field work. Refer to Map 3-3, Vegetation of the Topsoil Borrow Area. This information is provided in Appendix 3-1.

321.200 Productivity and range conditions estimates for the mine site disturbed area and the proposed borrow area were performed by the Natural Resource Conservation Service. Those estimates are presented in Appendix 3-1.

Vegetative types relating to wildlife habitat can be referenced on the Regional Vegetation Map (Map 3-1).

Cougar inhabit the proposed permit area and are closely associated with the seasonal distribution of deer, which serve as their primary food source. Black bears range in the permit area, developing well-defined home areas that are linearly oriented up slope and down slope (Jonkel and Cowan, 1971).

Cottontail rabbits, black-tailed and white-tailed jack rabbits, several squirrel, chipmunk and mice species occur throughout the area. The permit area is year-round habitat for cottontail rabbits and snowshoe hare. The habitat for the snowshoe hare is provided by the spruce-fir vegetation type. Most of these species are prey to badgers, skunks, bobcats, coyotes, foxes, and raptors that exist in the area.

Chukar partridge were introduced in 1951 and live along the base of the Book Cliffs around the mouth of B and C Canyons. Blue and ruffed grouse may be found in the vicinity of the proposed mine site along with mourning doves, which are common spring-summer nesting residents. Probably the most important habitat component for nesting doves is available water followed by nest trees. Doves prefer tree nest sites over nesting in shrubs.

A small number of elk reside in the vicinity of the permit area, with a moderate number wintering in the general area of C Canyon. Although this area has a high potential carrying capacity for wintering elk, the area has a low elk population which presently meets the population objective.

It is likely that the permit area is also used by a limited number of black bear, cougar, fox and bobcat. There are no fish in the permit area.

322.210 Threatened and Endangered Species

The U.S. Fish and Wildlife Service was contacted by Mr. Dave Steed of Environmental Industrial Services, for information regarding federally listed threatened or endangered species in the project area. The U.S. Fish and Wildlife Service responded with a letter which lists federally threatened, endangered and candidate species found in Carbon County. Refer to Appendix 3-4 for the letters of correspondence. None of the species on their list are known to reside within the project area. **An updated (May 2004) list for Carbon County is included in Appendix 3-4A. None of the listed species occurs within the permit area.**

The West Ridge Project EA incorporates a letter from U.S. Fish and Wildlife Service that states "The U.S. Fish and Wildlife Service advises that no federally listed threatened or endangered species are known to occur on the project site". This would include all of the proposed mine site disturbed area. **An updated of threatened, endangered and candidate species is included in Appendix 3-4A.**

The black-footed ferret has a potential habitat area west of the permit area on the pediment slopes. However a search of the area failed to locate any prairie dog towns, prairie dogs being the primary prey species of the ferret who also uses their burrows as ferret dens. Black footed ferrets have not been previously identified in this region. It is unlikely that any would be found in the vicinity of the permit area.

The permit area is habitat for several raptor species which utilize the cliffs for nesting and the surrounding area for hunting. Bald eagles utilize the region in the winter. Peregrine falcons have been sighted in the Wasatch Plateau cliffs, and recently (1998) in the Book Cliffs region. One Peregrine Falcon nest was located in the Book Cliffs during the 1998 raptor survey. It appears to be an active nesting site which has been used for many years and is located over ten miles away from the proposed West Ridge mine site area in a northerly direction. Peregrines usually live in open country around rock cliffs overlooking or within one mile of a stream or reservoir. An abundance of birds for a food supply is needed within their hunting range. Refer to Map 3-4A for the results of the June 1997 and May 1998 raptor surveys. The 1998 raptor survey report has been included as Appendix 3-2A. **An updated raptor survey (June 17, 2004) has been included in Appendix 3-2A as well.**

Several species of bats occur in the area including the Silver-haired bat, the Western small-footed Myotis, and the Big brown bat. The Spotted bat is also thought to exist in the area. Since these species roost in small isolated groups rather than large colonies, finding their sites among the rock crevices and trees would be extremely difficult. Protecting them would be nearly impossible. Mine-related subsidence could potentially kill a small number of bats and adversely affect some roosting areas. Although subsidence may close some existing habitat cracks, it would more than likely create just as many new ones in the process. Mining activity should therefore have no net adverse affect to the habitat. Because the bats are spread out over wide areas rather than roosting in large localized colonies, the overall population should not be adversely impacted by the effects of subsidence.

The yellow-billed cuckoo is not thought to occur in the permit area. (Refer to Appendix 3-11, Letter from DWR regarding yellow-billed cuckoo.)

The burrowing owl is also not expected to be found within the permit area as they use prairie dog burrows as nest sites. No fish are found within the permit area.

A Mexican spotted owl was reported in Desolation Canyon, approximately 25 miles east of the permit area. On Oct. 9, 2002 officials from Utah Division of Wildlife Resources surveyed the permit area and determined that the area was not suitable habitat for the spotted owl. A letter from DWR verifying this conclusion is included in Appendix 3-9.

On April 16, 2004 DWR and EIS conducted an additional spotted owl survey over the project area, including the expanded areas of the state leases and the fee lease. Based on this survey they re-confirmed their earlier conclusions that there is insufficient potential habitat in the permit area. (Refer to Appendix 3-9A)

- 322.220 No streams, wetlands, riparian areas, or special migration areas are located within the permit area southwest of West Ridge. Grassy Trail Creek is an intermittent stream located in the permit area (including the Penta Creek fee lease) in Whitmore Canyon located northeast of West Ridge. Riparian areas exist along Grassy Trail Creek in this area, as depicted on Map 3-1. The riparian habitat along Grassy Trail Creek is described in detail in Appendix 3-12. Wildlife wintering areas are depicted on Maps 3-4B, 3-4C and 3-4D.

R645-301-323 MAPS AND AERIAL PHOTOGRAPHS

- 323.100 The location of the reference areas for determining the success of revegetation is depicted on Map 3-2. The areas have been marked in the field using steel range posts.
- 323.200 Fixed monitoring stations were not used to gather information for fish and wildlife.
- 323.300 No permanent facilities are being proposed for the enhancement of fish, wildlife and related environmental values. The sediment treatment facilities, although temporary in nature, may provide a source of water until final reclamation. Reclamation will focus on providing wildlife forage and habitat.
- 323.400 Vegetation types and plant community, as well as sampling locations are shown on Map 3-2. Sampling transects utilized during the vegetation survey are shown on the map. The vegetation sampling transects were also utilized by the Natural Resources Conservation Service when they conducted the range condition evaluation at the proposed mine site.

storage area and a small part of the mine material storage yard. Once the topsoil pile has been established there will be minimal activity in this portion of the mine yard. During the May 1998, DWR personnel evaluated the nest locations with respect to the location of the topsoil stockpile area in order to evaluate the potential impacts of the mine construction and operation. It was determined that, due to the visual screening between the nests and the mine site offered by the high trees and the cliff lines within the canyon, mine construction/operation would have no effect on the nest sites in the right fork of C Canyon. A site specific buffer zone was established for the nest sites in C Canyon and is depicted on Map 3-4A. The site specific buffer zone was addressed and recommended in the EA prepared by the BLM. Since the mine site disturbance will be outside of the site specific buffer zone, a take permit will not be required for the nests in the right fork. Mine construction and operation can proceed outside the site specific buffer zone and the construction season will not be affected. DWR did recommend however, that annual monitoring be continued for the C Canyon area.

The same raptor survey (DWR, 1997) also re-located an inactive golden eagle nest in the left fork of C Canyon in the southeast quarter of Section 10, T 14 S, R 13 E. Most of the minesite lies within ½ mile of this nest. Because this nest site has been inactive when it has been monitored during raptor surveys conducted in 1981, 1997 and 1998, it is classified as abandoned under the established BLM guidelines and no take permit is required. Mine construction and operation will not negatively impact this nest.

In the spring of 2001, DWR conducted its annual raptor survey of the West Ridge mine area. (Refer to Appendix 3-10 for the results of this survey.) The survey included the cliff escarpments and canyons within the permit area southwest of West Ridge. It is this area that contains the majority of raptor nesting activity and is the area underlain by current active mining operations. The Whitmore Canyon area on the northeast side of West Ridge was not covered during this latest survey although it has been covered within the last several years. The Whitmore Canyon area contains considerably less nesting activity than the area southwest of the ridge and mining related subsidence is not scheduled to occur in this area until the year 2005. WEST RIDGE Resources will coordinate with DWR to ensure that the Whitmore Canyon area is included in the annual raptor survey prior to mining in this area. **An updated raptor survey (June 17, 2004) has been included in Appendix 3-2A.**

The proposed topsoil borrow area is a site that may be utilized at the time of final reclamation if need. Because it is fairly likely that the proposed topsoil borrow area will not be required for final reclamation, the operator commits to mitigate for the disturbance when and if it occurs.

In coordination with DWR, WEST RIDGE Resources, Inc. commits to conducting wildlife education sessions for their employees and their contractor's employees to develop an awareness of the wildlife in the area.

R645-301-358

PROTECTION OF FISH, WILDLIFE AND RELATED ENVIRONMENTAL VALUES

The operator will attempt to minimize disturbance and adverse impacts to wildlife and related environmental values. No threatened or endangered species are known to exist in the permit area. No fish habitat exists in or near the permit area. The operator will report the occurrence of any state- or federally-listed endangered or threatened species located within the permit area of which the operator becomes aware. The operator will take appropriate precautions to eliminate the chance of taking of a bald or golden eagle, its nest, or any of its eggs.

No streams, wetlands, riparian areas, or special migration areas are located within the permit area southwest of West Ridge. Grassy Trail Creek is an intermittent stream located in the permit area (including the Penta Creek fee lease) in Whitmore Canyon located northeast of West Ridge. Riparian areas exist along Grassy Trail Creek in this area, as depicted on Map 3-1. The riparian habitat along Grassy Trail Creek is described in detail in Appendix 3-12. Wildlife wintering areas are depicted on Maps 3-4B, 3-4C and 3-4D.

Power lines within the permit area will be designed to be raptor-proof, thus minimizing the potential electrocution hazard to raptors.

Fences and overland conveyors will be designed to minimize their potential as barriers to large mammals. The sediment pond will not be fenced as it will not contain hazardous concentrations of toxic-forming materials.

APPENDIX 3-4A

**UPDATED THREATENED AND ENDANGERED
SPECIES LIST**

**Federal and State Listed Threatened, Endangered and Candidate Species
Plants and Wildlife
Carbon County, Utah
October, 2002**

<u>Species</u>	<u>Scientific Name</u>	<u>Status</u>
Graham Beardtongue	<i>Penstemon grahamii</i>	C
Uinta Basin Hookless Cactus	<i>Schlerocactus glaucus</i>	T
Bonytail ^{4, 10}	<i>Gila elagans</i>	E
Colorado Pikeminnow ^{4, 10}	<i>Ptychocheilus lucius</i>	E
Humpback Chub ^{4, 10}	<i>Gila cypha</i>	E
Razorback Sucker ^{4, 10}	<i>Xyrauchen texanus</i>	E
Bald Eagle ³	<i>Haliaeetus leucocephalus</i>	T
Mexican Spotted Owl ⁴	<i>Strix occidentalis lucida</i>	T
Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	C
Black-footed Ferret ⁶	<i>Mustela nigripes</i>	E

1 Nests in this county of Utah

2 Migrates through Utah, no resident populations.

3 Wintering populations (only five known nesting pairs in Utah).

4 Critical habitat designated in this county.

5 Critical habitat proposed in this county

6 Historical range.

7 Experimental nonessential population

8 Introduced, refugia population.

9 Candidate species have no legal population under the Endangered Species Act. However, these species are under active consideration by the Service for addition to the Federal List of Endangered and Threatened Species and may be proposed or listed during the development of the proposed project.

10 Water depletions from any portion of the occupied drainage basin are considered to adversely affect or adversely modify the critical habitat of the endangered fish species, and must be evaluated with regard to the criteria described in the pertinent fish recovery programs.

For additional information contact: U.S. Fish and Wildlife Service, Utah Field Office, 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119 Telephone (801) 975-3330.

LETTER FROM E.T.S. REGARDING
MEXICAN SPOTTED OWL

APPENDIX 3-9A



ENVIRONMENTAL INDUSTRIAL SERVICES

435-472-3814 • 800-641-2927 • FAX 435-472-8780 • eisec@sisna.com • 31 NORTH MAIN STREET HELPER, UTAH 84526

April 26, 2004

WestRidge Resources, Inc.
Mr. David Shaver
P.O. Box 1077
Price, Utah 84526

RE: Mexican spotted owl (MSO) Habitat Delineation – WestRidge Lease Area Properties

Dear Mr. Shaver:

As per your request, based on the plates you provided of the lease areas, I overlaid the 1997 and 2000 MSO habitat models to identify potential suitable MSO habitat (Plate I). Based on the overlay, it appeared there were some isolated areas that could provide roosting areas for MSO's. Due to the relatively small size it would be very unlikely to support a nesting site or a Protected Activity Center (PAC).

On Friday, April 16, 2004, Mr. Chris Colt, Mr. Brad Crompton and myself flew over the area utilizing a Bell LoneRanger Helicopter, the purpose of the flight was to ascertain (1) the overall habitat character as it related to the data provided by the models and (2) determine if a survey was warranted. We concluded that the data provided by the models was an accurate portrayal of the habitat and that a survey was not warranted. This conclusion was based on the isolated and small area which represented suitable habitat and the fact that the area would not be disturbed and virtually no impacts associated with disturbance such as habitat loss or habitat modification could occur. This conclusion is based on the depth of the coal seam (1,500 + feet) and the lack of evidence of subsidence impacting aquifers and/or the surface as a result of underground mining at these depths and I feel that a survey would not be warranted even if suitable nesting habitat were present.

If I or our firm can be of any further assistance, or we can answer any questions, please feel free to contact me at 1-800-641-2927.

Sincerely,

Katie J. Nash
Threatened, Endangered and Sensitive Species Specialist
EIS Environmental & Engineering Consulting
31 North Main Street, Helper, Utah 84526

CC: Chris Colt, UDWR
Brad Crompton, UDWR

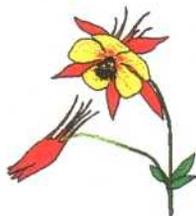
APPENDIX 3-12

A SURVEY OF THE RIPARIAN PLANT COMMUNITIES NEAR GRASSY TRAIL CREEK
(MT. NEBO SCIENTIFIC)

**RIPARIAN PLANT COMMUNITY SURVEY
AT
GRASSY TRAIL CREEK**

**PREPARED FOR
WEST RIDGE MINE
CARBON COUNTY, UTAH**

APPENDIX 3-12



Prepared by

MT. NEBO SCIENTIFIC, INC.
330 East 400 South, Suite 6
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Patrick D. Collins, Ph.D.

for

WEST RIDGE RESOURCES
P.O. Box 1077
Price, Utah 84501

May 2004

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RIPARIAN PLANT COMMUNITY SURVEY AT GRASSY TRAIL CREEK

INTRODUCTION

In 2002, Mt. Nebo Scientific, Inc. prepared a revision to the existing vegetation map for the permit area of the West Ridge Mine (West Ridge Resources Map 3-1). This map was prepared using previous mapping and aerial photographs of the area, with some follow-up ground-checking accomplished in 2003. The map was then submitted to the State of Utah, Division of Oil, Gas & Mining (DOG M) by West Ridge Resources. Based on DOGM review and subsequent comments in their technical analysis, a commitment was made by West Ridge Resources to provide a “description of the riparian habitat in and near Grassy Trail Creek”. This report contains data and other information for a section of the stream that runs through the permit area. The study is meant to be used as baseline data and other information for this portion of the creek.

Located about 8 miles north of Sunnyside, Utah, Grassy Trail Creek is situated within the drainage of Whitmore Canyon. This survey was performed in one portion of Grassy Trail Creek. The study area was located within the Left Fork of Whitmore Canyon (T.13 S., R.13E. Section 35; T.14S, R.13E., Sections 1&2). A sample location map has been included with this report.

METHODS

A Level II investigation was conducted for the riparian plant communities of Grassy Trail Creek and the channel in which it flows. The study was based on methods written by the USDA Forest Service (1992). Fieldwork was conducted in early September 2003. Using the Forest Service methods, data from representative “reaches” along the creek of the Left Fork of Whitmore Canyon were recorded. Field parameters are shown on Table 1. Additionally, several other reaches were observed to note any differences from the sample reach. Specific sample locations are shown on the enclosed “Sample Location Map”. The data recorded from these sample locations have been provided on the data sheet summaries submitted in the tables of this report. Color photographs were taken at the time of sampling and have also been included in this report.

TABLE 1: Field Parameters for the Riparian Survey

COMPLEX WATERBODY NAME LOCATION DATE OBSERVER(S) QUAD NAME GEOLOGIC PARENT MATERIAL ASPECT VALLEY BOTTOM TYPE STREAM TYPE (Rosgen 1996) STREAM GRADIENT ELEVATION SIZE OF COMPLEX SOIL FAMILY ADJACENT UPLAND VEGETATION VEGETATIVE DESCRIPTION SUCCESSIONAL STATUS APPARENT FORAGE TREND ESTIMATED FORAGE PRODUCTION BEAVER ACTIVITY GREEN LINE (Hydric): PHOTOGRAPH TAKEN LAND USE ACTIVITIES THAT COULD INFLUENCE RIPARIAN AREA	RIPARIAN AREA SPECIES OBSERVED POOL ATTRIBUTES % area in pools % pool area made up of pools > 2' deep AQUATIC VEGETATION % streambed with filamentous algae % stream margin with rooted aquatic BANK TYPE & VEGETATION OVERHANG % bank length undercut (<90°) % bank length gently sloping (>135°) % bank length with overhanging vegetation BANK CONDITION % bank length vegetated, stable % bank length unvegetated, stable % bank length vegetated, unstable % bank length unvegetated, unstable CHANNEL MORPHOLOGY* (Rosgen 1996) Entrenchment Ratio Width/Depth Ratio Sinuosity Stream Classification ADDITIONAL NOTES
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RESULTS

The tables on the following pages provide baseline data and other information about each sample site in the riparian areas of the Grassy Trail Creek.

LITERATURE CITED

Rosgen, D. 1996. Applied river morphology. Wildland Hydrology. Pagosa Springs, CO.

USDA Forest Service. March 1992. Integrated riparian evaluation guide. Intermountain Region. Ogden, UT.

TABLE 2: RIPARIAN COMPLEX DATA SHEET (LEVEL II)

COMPLEX: Riverine - Sample No. 1 (S-01)

WATERBODY NAME: Grassy Trail Creek (Left Fork Whitmore Canyon)

LOCATION: Northwest of Grassy Trail Reservoir approx. 2.5 miles

DATE: 8 September 2003

OBSERVER(S): P.D. Collins²

QUAD NAME: Mt. Bartles, Utah, USGS 7.5 Minute Series

GEOLOGIC PARENT MATERIAL: Mesaverde Group

ASPECT: Stream flows SE

VALLEY BOTTOM TYPE: Valley Type I (close to Type II)

STREAM TYPE (Rosgen 1996): A3

STREAM GRADIENT: 5.0%

ELEVATION: 8,040 ft.

SIZE OF COMPLEX: 1,800 ft.

SOIL FAMILY:

- *Gerst-Badland-Stromitt complex (Map Unit 35)*

Reference: Jensen, E.H., J.W. Borchert. 1988. Soil Survey of Carbon Area, Utah. USDA Soil Conservation Service (Natural Resource Conservation Service).

ADJACENT UPLAND VEGETATION (looking downstream)

Left: Aspen/Sagebrush

Right: Subalpine Fir/Aspen

VEGETATIVE DESCRIPTION (Dominance by Community Types)

Community Name	% of Complex
Willow	50
Redtop	50

SUCCESSIONAL STATUS: Early (disturbed somewhat by adjacent dirt road)

APPARENT FORAGE TREND: increasing

ESTIMATED FORAGE PRODUCTION: 1,000 lbs/ac

BEAVER ACTIVITY: moderate

GREEN LINE (Hydric): 9.0 ft.

TABLE 2 (continued)
Whitmore Canyon
Sample Site: S-01

PHOTOGRAPH TAKEN: yes

LAND USE ACTIVITIES THAT COULD INFLUENCE RIPARIAN AREA: Mining, grazing, ATV use, hunting.

SPECIES OBSERVED:

Trees	Shrubs	Forbs	Graminoids
<i>Salix boothii</i>	<i>Juniperus communis</i>	<i>Urtica dioica</i>	<i>Agrostis stolonifera</i>
<i>Acer glabrum</i>	<i>Symphoricarpos oreophilus</i>	<i>Verbascum thapsus</i>	<i>Bromus carinatus</i>
<i>Populus tremuloides</i>		<i>Taraxacum officinale</i>	
<i>Abies lasiocarpa</i>		<i>Trifolium sp.</i>	

POOL ATTRIBUTES

% area in pools: 75
% pool area made up of pools > 2' deep: 0

AQUATIC VEGETATION

% streambed with filamentous algae: 0
% stream margin with rooted aquatic: 65

BANK TYPE & VEGETATION OVERHANG

% bank length undercut (<90°): 0
% bank length gently sloping (>135°): 0
% bank length with overhanging vegetation: 25

BANK CONDITION

% bank length vegetated, stable: 65
% bank length unvegetated, stable: 15
% bank length vegetated, unstable: 10
% bank length unvegetated, unstable: 10

CHANNEL MORPHOLOGY* (Rosgen 1996)

<i>Entrenchment Ratio</i>				<i>Width/Depth Ratio</i>		
Cross Section No.	Flood-Prone Width (ft)	Bankfull Width (ft)	Ratio	Bankfull Width (ft)	Bankfull Depth (ft)	Ratio
S-01	26.0	13.0	2.00	13.0	8.5	1.53

<i>Sinuosity</i>			<i>Stream Classification</i>			
Cross Section No.	Given Reach Length (ft)	Given Valley length (ft)	Ratio	Slope (fraction)	Bed Material	Stream Class
S-01	200	191	1.05	.05	cobble	A3

NOTES:

- The sample area was representative of the reaches in this area.
- We marked the road and stream with blue flags.

TABLE 3: RIPARIAN COMPLEX DATA SHEET (LEVEL II)

COMPLEX: Riverine - Sample No. 2 (S-02)

WATERBODY NAME: Grassy Trail Creek (Left Fork Whitmore Canyon)

LOCATION: Approx. 2,500 ft downstream from S-01

DATE: 9 September 2003

OBSERVER(S): P.D. Collins²

QUAD NAME: Mt. Bartles, Utah, USGS 7.5 Minute Series

GEOLOGIC PARENT MATERIAL: Mesaverde Group

ASPECT: Stream flows SE

VALLEY BOTTOM TYPE: Valley Type I (close to Type II)

STREAM TYPE (Rosgen 1996): A3

STREAM GRADIENT: 3.0%

ELEVATION: 7960 ft.

SIZE OF COMPLEX: (refer to distances between samples)

SOIL FAMILY:

- *Gerst-Badland-Stromitt complex (Map Unit 35)*

Reference: Jensen, E.H., J.W. Borchert. 1988. Soil Survey of Carbon Area, Utah. USDA Soil Conservation Service (Natural Resource Conservation Service).

ADJACENT UPLAND VEGETATION (looking downstream)

Left: Sagebrush/Grass/Aspen

Right: Aspen/Fir

VEGETATIVE DESCRIPTION (Dominance by Community Types)

Community Name	% of Complex
Horsetail/Willow	50
Redtop	45
Rush	5

SUCCESSIONAL STATUS: climax

APPARENT FORAGE TREND: increasing

ESTIMATED FORAGE PRODUCTION: 1,200 lbs/ac

BEAVER ACTIVITY: slight

GREEN LINE (Hydric): 11.5 ft.

TABLE 3 (continued)

Whitmore Canyon

Sample Site: S-02

PHOTOGRAPH TAKEN: yes

LAND USE ACTIVITIES THAT COULD INFLUENCE RIPARIAN AREA: Mining, grazing, ATV use, hunting.

SPECIES OBSERVED:

Trees	Shrubs	Forbs	Graminoids
<i>Abies concolor</i>	<i>Artemisia tridentata</i>	<i>Achillea millefolium</i>	<i>Agrostis stolonifera</i>
<i>Abies lasiocarpa</i>	<i>Symphoricarpos oreophilus</i>	<i>Equisetum arvense</i>	<i>Juncus articus</i>
<i>Betula occidentalis</i>		<i>Taraxacum officinale</i>	
<i>Populus tremuloides</i>		<i>Viguiera multiflora</i>	
<i>Salix boothii</i>		<i>Geranium richardsonii</i>	
		<i>Trifolium sp.</i>	
		<i>Aster sp.</i>	

POOL ATTRIBUTES

% area in pools: 50

% pool area made up of pools > 2' deep: 0

AQUATIC VEGETATION

% streambed with filamentous algae: 0

% stream margin with rooted aquatic: 0

BANK TYPE & VEGETATION OVERHANG

% bank length undercut (<90°): 0

% bank length gently sloping (>135°): 20

% bank length with overhanging vegetation: 65

BANK CONDITION

% bank length vegetated, stable: 80

% bank length unvegetated, stable: 20

% bank length vegetated, unstable: 0

% bank length unvegetated, unstable: 0

CHANNEL MORPHOLOGY* (Rosgen 1996)

Cross Section No.	Entrenchment Ratio			Width/Depth Ratio		
	Flood-Prone Width (ft)	Bankfull Width (ft)	Ratio	Bankfull Width (ft)	Bankfull Depth (ft)	Ratio
S-02	36.5	24.0	1.52	24.0	5.0	4.80

Cross Section No.	Sinuosity			Stream Classification		
	Given Reach Length (ft)	Given Valley length (ft)	Ratio	Slope (fraction)	Bed Material	Stream Class
S-02	200	172	1.16	.03	Cobble/sed.	A3

NOTES:

- The sample area was representative of the reaches in this area.
- We marked the road and stream with blue flags.
- Bank was well vegetated near stream and bankfull areas, but deep cuts (~8-10') above that (see photograph).

TABLE 4: RIPARIAN COMPLEX DATA SHEET (LEVEL II)

COMPLEX: Riverine - Sample No. 3 (S-03)

WATERBODY NAME: Grassy Trail Creek (Left Fork Whitmore Canyon)

LOCATION: Approx. 2,000 ft downstream from S-02

DATE: 9 September 2003

OBSERVER(S): P.D. Collins²

QUAD NAME: Mt. Bartles, Utah, USGS 7.5 Minute Series

GEOLOGIC PARENT MATERIAL: Mesaverde Group

ASPECT: Stream flows SE

VALLEY BOTTOM TYPE: Valley Type I (close to Type II)

STREAM TYPE (Rosgen 1996): G4

STREAM GRADIENT: 3.0%

ELEVATION: 7,880 ft.

SIZE OF COMPLEX: (refer to distances between samples)

SOIL FAMILY:

- *Gerst-Badland-Stromitt complex (Map Unit 35)*

Reference: Jensen, E.H., J.W. Borchert. 1988. Soil Survey of Carbon Area, Utah. USDA Soil Conservation Service (Natural Resource Conservation Service).

ADJACENT UPLAND VEGETATION (looking downstream)

Left: Aspen

Right: Sagebrush/Grass/Current

VEGETATIVE DESCRIPTION (Dominance by Community Types)

Community Name	% of Complex
Willow/Redtop	100

SUCCESSIONAL STATUS: Early climax

APPARENT FORAGE TREND: increasing

ESTIMATED FORAGE PRODUCTION: 2,000 lbs/ac

BEAVER ACTIVITY: none observed

GREEN LINE (Hydric): 15.0 ft.

PHOTOGRAPH TAKEN: yes

TABLE 4 (continued)
Whitmore Canyon
Sample Site: S-03

LAND USE ACTIVITIES THAT COULD INFLUENCE RIPARIAN AREA: Mining, grazing, ATV use, hunting.

SPECIES OBSERVED:

Trees	Shrubs	Forbs	Graminoids
<i>Salix boothii</i>	<i>Salix exigua</i>	<i>Achillea millefolium</i>	<i>Agrostis stolonifera</i>
<i>Juniperus scopulorum</i>	<i>Artemisia tridentata</i>	<i>Equisetum arvense</i>	<i>Bromus japonicus</i>
<i>Populus angustifolia</i>		<i>Aster sp.</i>	<i>Juncus articus</i>
		<i>Geranium richardsonii</i>	
		<i>Trifolium sp.</i>	

POOL ATTRIBUTES

- % area in pools: 50
- % pool area made up of pools > 2' deep: 0

AQUATIC VEGETATION

- % streambed with filamentous algae: 0
- % stream margin with rooted aquatic: 5

BANK TYPE & VEGETATION OVERHANG

- % bank length undercut (<90°): 0
- % bank length gently sloping (>135°): 15
- % bank length with overhanging vegetation: 80

BANK CONDITION

- % bank length vegetated, stable: 70
- % bank length unvegetated, stable: 30
- % bank length vegetated, unstable: 0
- % bank length unvegetated, unstable: 0

CHANNEL MORPHOLOGY* (Rosgen 1996)

Cross Section No.	<i>Entrenchment Ratio</i>			<i>Width/Depth Ratio</i>		
	Flood-Prone Width (ft)	Bankfull Width (ft)	Ratio	Bankfull Width (ft)	Bankfull Depth (ft)	Ratio
S-03	40.75	23.0	1.77	23.0	5.0	4.60

Cross Section No.	<i>Sinuosity</i>			<i>Stream Classification</i>		
	Given Reach Length (ft)	Given Valley length (ft)	Ratio	Slope (fraction)	Bed Material	Stream Class
S-03	167.0	200.0	1.20	.03	Gravel (some cobble)	G4

NOTES:

- The sample area was representative of the reaches in this area.
- We marked the road and stream with blue flags.
- There were deep cuts (~10 ft) at the flood level, well above bankfull (see photographs).
- Photographs were taken in (and between sample areas).

TABLE 5: RIPARIAN COMPLEX DATA SHEET (LEVEL II)

COMPLEX: Riverine - Sample No. 4 (S-04)

WATERBODY NAME: Grassy Trail Creek (Left Fork Whitmore Canyon)

LOCATION: Approx. 2,500 ft downstream from S-03

DATE: 9 September 2003

OBSERVER(S): P.D. Collins²

QUAD NAME: Mt. Bartles, Utah, USGS 7.5 Minute Series

GEOLOGIC PARENT MATERIAL: Mesaverde Group

ASPECT: Stream flows SE

VALLEY BOTTOM TYPE: Valley Type I (close to Type II)

STREAM TYPE (Rosgen 1996): A3?

STREAM GRADIENT: 5.0%

ELEVATION: 7,760 ft.

SIZE OF COMPLEX: (refer to distances between samples)

SOIL FAMILY:

- *Gerst-Badland-Stromitt complex (Map Unit 35)*

Reference: Jensen, E.H., J.W. Borchert. 1988. Soil Survey of Carbon Area, Utah. USDA Soil Conservation Service (Natural Resource Conservation Service).

ADJACENT UPLAND VEGETATION (looking downstream)

Left: Sagebrush/Grass

Right: Aspen/Fir

VEGETATIVE DESCRIPTION (Dominance by Community Types)

Community Name	% of Complex
Booth's Willow/Redtop	25
Coyote Will/Redtop	75

SUCCESSIONAL STATUS: Climax

APPARENT FORAGE TREND: increasing

ESTIMATED FORAGE PRODUCTION: 2,000 lbs/ac

BEAVER ACTIVITY: No present activity; much historical activity

GREEN LINE (Hydric): 10.5 ft.

TABLE 5 (continued)
Whitmore Canyon
Sample Site: S-04

PHOTOGRAPH TAKEN: yes

LAND USE ACTIVITIES THAT COULD INFLUENCE RIPARIAN AREA: Mining, grazing, ATV use, hunting.

SPECIES OBSERVED:

Trees	Shrubs	Forbs	Graminoids
<i>Salix boothii</i>	<i>Juniperus communis</i>	<i>Aster sp.</i>	<i>Agrostis stolonifera</i>
<i>Acer glabrum</i>	<i>Symphoricarpos oreophilus</i>	<i>Equisetum arvense</i>	
<i>Populus tremuloides</i>	<i>Salix exigua</i>		
	<i>Artemisia tridentata</i>		
	<i>Cercocarpus ledifolius</i>		

POOL ATTRIBUTES

% area in pools: 25
% pool area made up of pools > 2' deep: 0

AQUATIC VEGETATION

% streambed with filamentous algae: 0
% stream margin with rooted aquatic: 0

BANK TYPE & VEGETATION OVERHANG

% bank length undercut (<90°): 30
% bank length gently sloping (>135°): 0
% bank length with overhanging vegetation: 70

BANK CONDITION

% bank length vegetated, stable: 50
% bank length unvegetated, stable: 15
% bank length vegetated, unstable: 0
% bank length unvegetated, unstable: 35

CHANNEL MORPHOLOGY* (Rosgen 1996)

Cross Section No.	Entrenchment Ratio			Width/Depth Ratio		
	Flood-Prone Width (ft)	Bankfull Width (ft)	Ratio	Bankfull Width (ft)	Bankfull Depth (ft)	Ratio
S-04	209.0	35.5	5.97	35.5	5.5	6.45
Cross Section No.	Given Reach Length (ft)	Given Valley length (ft)	Ratio	Slope (fraction)	Bed Material	Stream Class
S-04	200.0	166.5	1.20	.03	Cobble	A3?

NOTES:

- The sample area was representative of the reaches in this area.
- We marked the road and stream with blue flags.
- There were 5 ft cuts in some areas.

TABLE 6: RIPARIAN COMPLEX DATA SHEET (LEVEL II)

COMPLEX: Riverine - Sample No. 5 (S-05)

WATERBODY NAME: Grassy Trail Creek (Left Fork Whitmore Canyon)

LOCATION: Northwest of Grassy Trail Reservoir approx. 2.5 miles

DATE: 9 September 2003

OBSERVER(S): P.D. Collins²

QUAD NAME: Mt. Bartles, Utah, USGS 7.5 Minute Series

GEOLOGIC PARENT MATERIAL: Mesaverde Group

ASPECT: Stream flows SE

VALLEY BOTTOM TYPE: Valley Type I (close to Type II)

STREAM TYPE (Rosgen 1996): G6

STREAM GRADIENT: 5.0%

ELEVATION: 8,040 ft.

SIZE OF COMPLEX: (refer to distances between samples)

SOIL FAMILY:

- *Gerst-Badland-Stromitt complex (Map Unit 35)*

Reference: Jensen, E.H., J.W. Borchert. 1988. Soil Survey of Carbon Area, Utah. USDA Soil Conservation Service (Natural Resource Conservation Service).

ADJACENT UPLAND VEGETATION (looking downstream)

Left: Sagebrush/Grass

Right: Aspen

VEGETATIVE DESCRIPTION (Dominance by Community Types)

Community Name	% of Complex
Coyote Willow/Redtop	100

SUCCESSIONAL STATUS: climax

APPARENT FORAGE TREND: increasing

ESTIMATED FORAGE PRODUCTION: 2,000 lbs/ac

BEAVER ACTIVITY: No present activity; much historical activity

GREEN LINE (Hydric): (not measured)

TABLE 6 (continued)
Whitmore Canyon
Sample Site: S-05

PHOTOGRAPH TAKEN: yes

LAND USE ACTIVITIES THAT COULD INFLUENCE RIPARIAN AREA: Underground mining; ATV use, hunting.

SPECIES OBSERVED:

Trees	Shrubs	Forbs	Graminoids
<i>Pseudotsuga menziesii</i>	<i>Salix exigua</i>	<i>Aster sp.</i>	<i>Agrostis stolonifera</i>
<i>Juniperus scopulorum</i>	<i>Symphoricarpos oreophilus</i>	<i>Equisetum arvensis</i>	
<i>Populus tremuloides</i>	<i>Artemisia tridentata</i>	<i>Lupinus sp.</i>	

POOL ATTRIBUTES

% area in pools: 20
% pool area made up of pools > 2' deep: 0

AQUATIC VEGETATION

% streambed with filamentous algae: 0
% stream margin with rooted aquatic: 25

BANK TYPE & VEGETATION OVERHANG

% bank length undercut (<90°): 0 (near bank)
% bank length gently sloping (>135°): 0
% bank length with overhanging vegetation: 25

BANK CONDITION

% bank length vegetated, stable: 75
% bank length unvegetated, stable: 25
% bank length vegetated, unstable: 0
% bank length unvegetated, unstable: 0

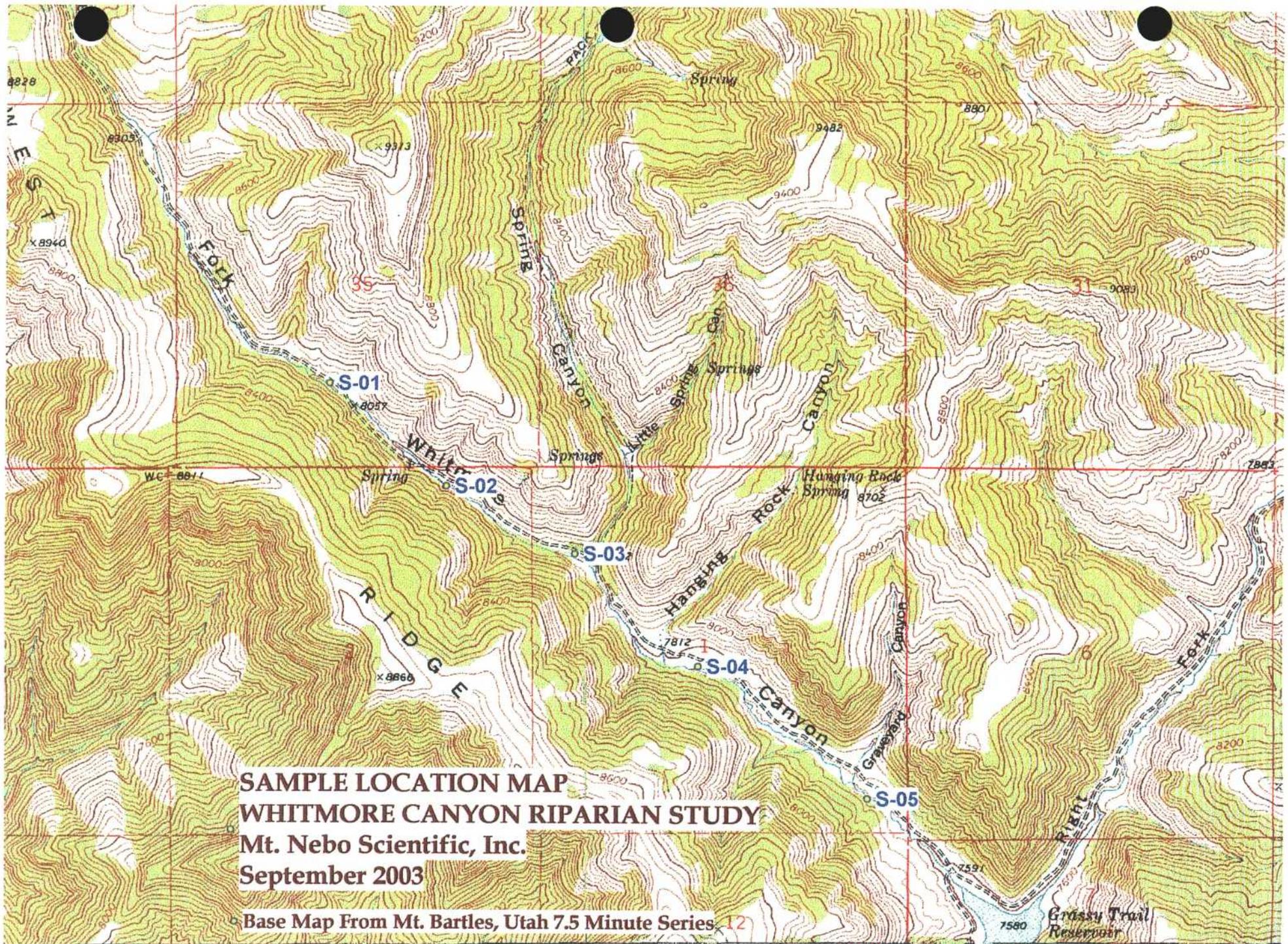
CHANNEL MORPHOLOGY* (Rosgen 1996)

<i>Entrenchment Ratio</i>				<i>Width/Depth Ratio</i>		
Cross Section No.	Flood-Prone Width (ft)	Bankfull Width (ft)	Ratio	Bankfull Width (ft)	Bankfull Depth (ft)	Ratio
S-05	43.0	29.0	1.48	29.0	5.0	5.80

<i>Sinuosity</i>				<i>Stream Classification</i>		
Cross Section No.	Given Reach Length (ft)	Given Valley length (ft)	Ratio	Slope (fraction)	Bed Material	Stream Class
S-05	200.0	179.0	1.12	.02	Silt	G6

NOTES:

- The sample area was representative of the reaches in this area.
- We marked the road and stream with blue flags.
- Stream areas open up and topography was more flat when compared to previous sample sites (see photographs).



SAMPLE LOCATION MAP
WHITMORE CANYON RIPARIAN STUDY
 Mt. Nebo Scientific, Inc.
 September 2003

Base Map From Mt. Bartles, Utah 7.5 Minute Series 12

548 (SUNNYSIDE)
 3963 III SW

549

550 25'

551

R. 13 E. R. 14 E.

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRI
 553

ROAD CLASSIFICATION

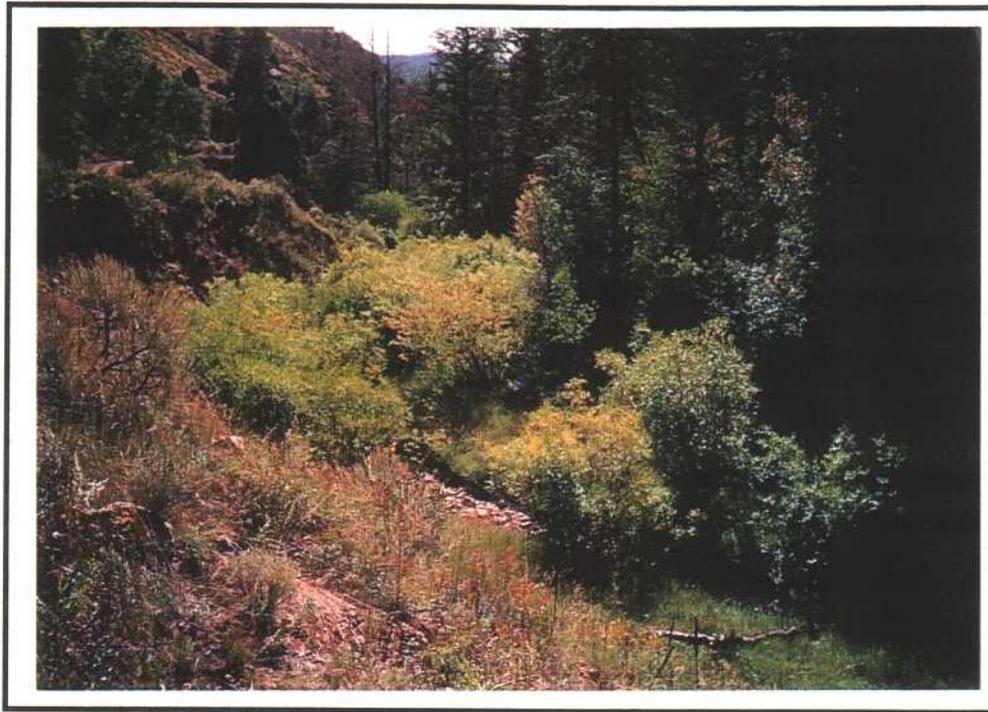
COLOR PHOTOGRAPHS



Grassy Trail Creek (Sample Site S-01)



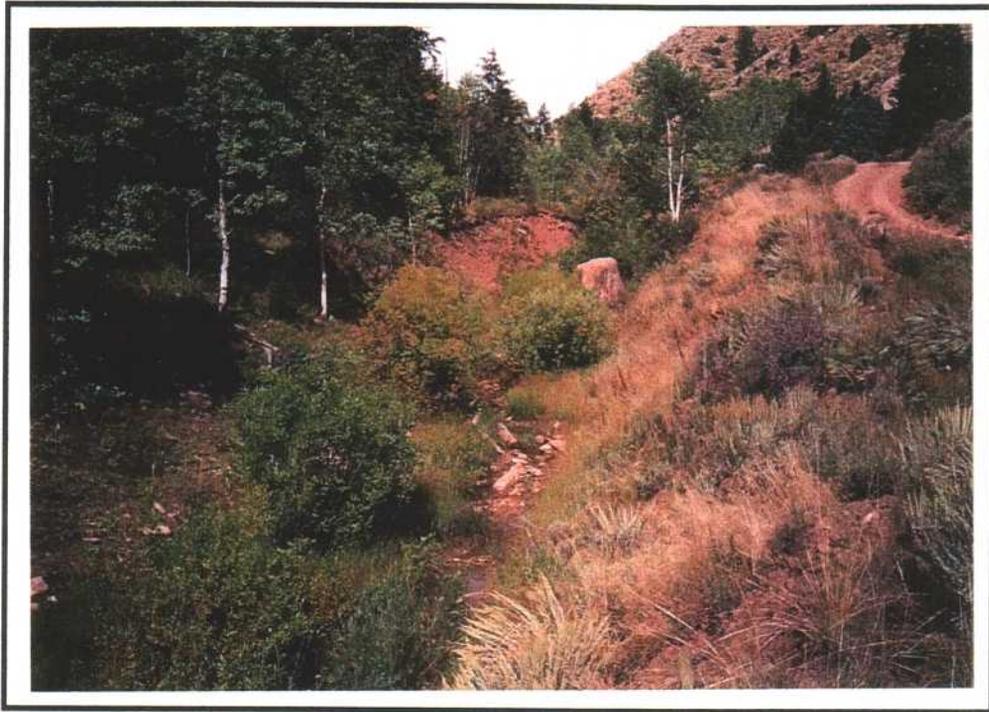
Grassy Trail Creek (area near S-02)



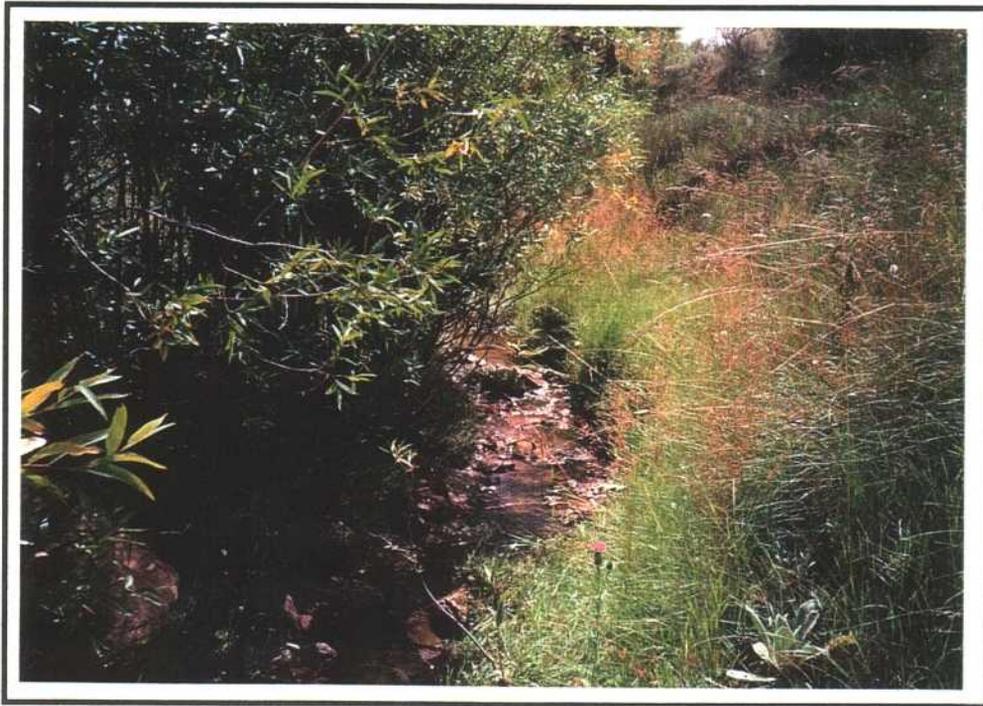
Grassy Trail Creek (area near S-02)



Grassy Trail Creek (Sample Site S-02)



Grassy Trail Creek (area 0.25 mi. south of S-02)



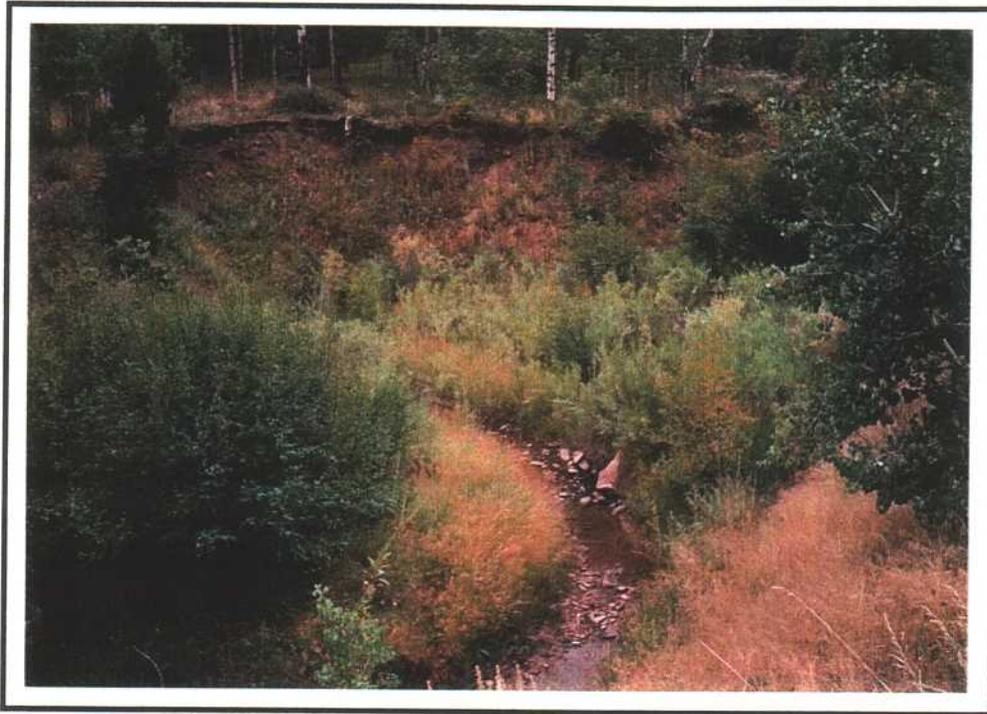
Grassy Trail Creek (Sample Site S-03)



Grassy Trail Creek (area between S-03 & S-04)



Grassy Trail Creek (Sample Site S-04)



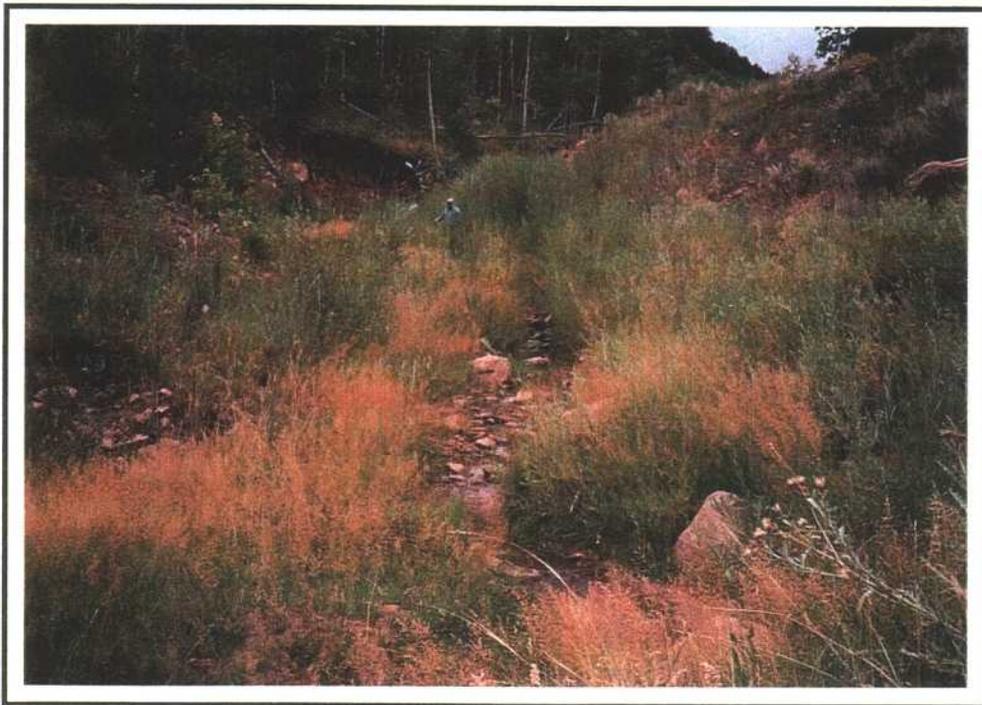
Grassy Trail Creek (area between S-04 & S-05)



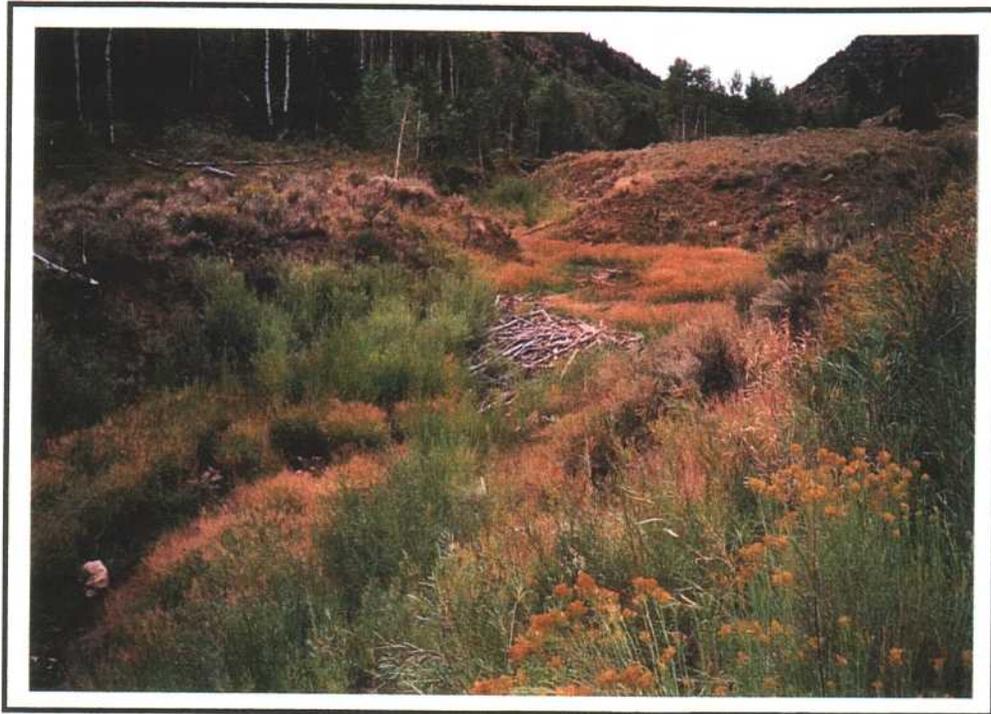
Grassy Trail Creek (more area between S-04 & S-05)



Grassy Trail Creek (area just above S-05)



Grassy Trail Creek (Sample Site S-05)



Grassy Trail Creek (area just below S-05)



Grassy Trail Creek (area below S-05)



Grassy Trail Creek (area more S-05 near inlet of Grassy Trail Reservoir)

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R645-301-500 CHAPTER 5**

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APPENDIX 5-3*	Resource Recovery and Protection Plan (R2P2)
APPENDIX 5-3A	Amended R2P2 Approval Letter (BLM)
APPENDIX 5-4*	Stability Evaluation for Construction and Reclaimed Slopes, West Ridge Mine
APPENDIX 5-5	Construction/Reclamation Plan
APPENDIX 5-6	Spill Prevention Control and Countermeasure Plan (SPCC)
APPENDIX 5-7	Pump House Reclamation and Sediment Control
APPENDIX 5-8*	Letter Regarding Pre-Subsidence Survey (Mayo and Associates)
APPENDIX 5-9	Assessment of Potential Effects of Longwall Mining on the Grassy Trail Dam and Reservoir. (R, B & G Engineering) *****TO BE ADDED LATER*****
APPENDIX 5-10	SITLA Mine Plan Approval State Lease ML-47711 and ML-49287

*Not included on disk

R645-301-520 OPERATION PLAN**R645-301-521 GENERAL**

WEST RIDGE Resources, Inc. holds federal coal leases SL-068754 and UTU-75862, state lease ML 47711 and ML 49287 and the Penta Creek fee lease, totaling 6361.43 acres in the West Ridge area of eastern Carbon County. Much of the Penta Creek Fee Lease, is not included within the permit area at this time and cannot be mined until the permit is amended. Refer to Map 5-4B, Mining Projections - Extended Reserves.

The mine, ~~as proposed~~, will consist of one longwall and two continuous miner sections. The mining sequence for the first five year term is shown on Map 5-4A, Mining Projections. Initial mine production will come from reserves located in the southeastern portion of the existing lease area. ~~If WEST RIDGE Resources, Inc. acquires the state reserves, a permit modification will be submitted to incorporate the new lease area(s) into the existing permit. WEST RIDGE Resources, Inc. will propose to extend the longwall panels onto this new lease area.~~ Panels will be developed to the north and south of the mains, progressing in an eastward direction. With the existing leases, the projected life of the West Ridge Mine is 15 years. ~~However, acquisition of additional state coal reserves in the West Ridge area would extend the life of the mine to nearly 15 years.~~ After the economically recoverable reserves within the permit area have been depleted, the portals would be sealed and reclamation of the surface facility area would begin unless additional leases were acquired.

Surface facilities will be located in C Canyon, where the left and right forks converge, in a previously disturbed area. The extent of the previous disturbance includes access roads, outcrop excavations and exploration drill holes. Previous disturbance at this site is estimated to be approximately 1.62 acres. The total proposed surface disturbed area, as delineated by the tan line on the maps, amounts to approximately 29 acres. Actual anticipated disturbance for surface facilities and topsoil stockpiles (within the disturbance area) is estimated at 26.02 acres. This includes approximately 0.79 acres of Carbon County road which has been included in the disturbed area down to the C Canyon gate, and 0.23 acres for the pumphouse area located below the minesite.

An alternate (substitute) topsoil borrow area would be located about 1 ½ miles to the west of the proposed mine site on a ten acre parcel of State School Trust land. This area would not be included unless needed for final reclamation. No surface disturbance would take place at this location until the time of final reclamation. No additional acreage should be required for the project as proposed in this permit application.

521.130 Landownership And Right Of Entry Maps

Ownership boundaries and the names of the present owners of record for surface lands as well as underground are depicted on Maps 5-2, Surface Ownership and 5-3, Subsurface Ownership.

Map 5-4B delineates the federal coal lease SL-068754 and UTU-78562, **state lease ML 47711 and ML49287** and the Penta Creek fee lease, totaling 6,114.89 acres held by WEST RIDGE Resources, Inc., which is the area for which WEST RIDGE Resources, Inc. Resources has the legal right to enter and begin coal mining and reclamation operations. **The state leases and Much of the Penta Creek Fee Lease is not included within the permit area at this time.**

Included in Appendix 5-2 is a letter from Carbon County granting WEST RIDGE Resources, Inc. permission to conduct mining operations within 100 feet of the Carbon County road. This would basically be that segment of road where the road enters the mine facility area.

Also included in Appendix 5-2 is an approval letter from Carbon County, allowing for the periodic closure of approximately 960' of the "C" Canyon Road from the gate to the original mine permit area. The permit area has been extended to the gate, as shown on Plate 4-1.

A public notice has been published providing for request for a public hearing as provided in R645-103-234. A copy of this notice is also included in Appendix 5-2.

521.140 Mine Maps And Permit Area Maps

The permit area proposed to be affected by the coal mining and reclamation operation is shown on Map 5-3. Permit renewals will be reapplied for on five year intervals.

521.141 The mining operation has been divided into five year mining blocks in an attempt to show future areas that will be mined under the permit renewals. The mining blocks are shown on Map 5-4B. All projections and timing are preliminary and general in nature and may change in the future depending on mining, marketing, environmental conditions and/or acquisition of additional state and federal reserves.

Surface support facilities in C Canyon will be utilized for the life of mine operations. The proposed mine surface facility area is depicted on Map 5-5, Surface Facility Map. Reclamation of the facilities will be performed following completion of mining activities and sealing of the portals.

521.142 The surface above mined out longwall panels may be subject to conditions associated with subsidence. Subsidence may occur under the mined out area.

By regulatory definition (i.e. drainage area greater than one square mile) the left fork of C Canyon is classified as an ephemeral drainage as it has a drainage area of 231 acres. The right fork is classified as an intermittent drainage by regulatory definition. The drainage are for this fork is just over one square mile, at 687 acres. A stream gauge located in the right fork channel never detected any channel flow even during heavy precipitation events in the summer of 1997.

The right and left fork drainages will be culverted beneath the mine yard facilities; flows will be released down stream from the mine office pad. A sediment pond will be used to treat site drainage to prevent intermingling with the undisturbed area drainage. A stream buffer zone sign will be posted at the upper end of the right fork of the mine yard and below the office pad to indicate a stream buffer zone.

521.270 Topsoil Markers

Signs will be posted to identify stockpiled topsoil materials.

R645-301-522 COAL RECOVERY

A Resource Recovery and Protection Plan (R2P2), has been approved by the BLM. The R2P2 will assure that coal mining and reclamation operations are conducted so as to maximize the utilization and conservation of the coal, while utilizing the best technology currently available to maintain environmental integrity, so that reffecting the land in the future through coal mining and reclamation operations is minimized. Refer to Appendix 5-3 and 5-3A for the R2P2 which includes a discussion of coal resource utilization and conservation. The Utah School and Institutional Trust Lands Administration (SITLA), with concurrence from the BLM, has approved the mining plan for State Leases ML-47711 and ML-59287 (See Appendix 5-10).

R645-301-523

MINING METHODS

Both longwall and continuous miner methods will be employed to recover the coal resource. Longwall will be the primary production method, while continuous miners will be used mainly for mine development to support the longwall. The longwall panels shown on Map 5-4B have been laid out to maximize recovery of the primary coal reserves. Continuous miners will be utilized to develop main entries, longwall gate entries, sumps and other similar development areas.

Initial mine production has come from reserves located in the southeastern portion of the existing lease area. ~~If West Ridge acquires these state reserves, a permit modification will be submitted to incorporate these new lease area(s) into the existing permit. West Ridge will propose to extend the longwall panels onto these new lease areas. Panels will be developed to the north and south of the mains, progressing in an eastward direction. Longwall panel layout may change depending on conditions encountered in the underground workings. As longwall mining approaches Grass Trail Reservoir, existing ongoing subsidence monitoring information will be used to determine the angle of draws and subsidence ratio in this area. Based on this information the underground workings will be designed to ensure that the reservoir is not adversely affected by mining activity.~~

~~With the existing leases,~~ The projected life of the West Ridge Mine is 15 years. However, Acquisition of additional federal coal reserves in the West Ridge area would extend the life of the mine to nearly beyond 15 years. In the unlikely event that non federal reserves cannot be acquired then the mine plan projection will be altered to maximize the economic and recovery of federal coal in the irregular blocks not amenable to mining. After the economically recoverable reserves within the lease area have been depleted, the portals would be sealed and reclamation of the surface facility area would begin unless additional leases were acquired.

The West Ridge mine is being proposed as an average size underground longwall mine by Utah industry standards, producing at an average rate of about 3 million tons per year. Mine production is subject to normal fluctuations depending on operational variables such as

geologic mining conditions, marketing, equipment availability, and/or worker productivity. The mine is expected to produce about 42 million tons of coal from the existing federal leases. ~~An additional 11 million tons of recoverable coal are available on adjacent unleased state lands, for a total potential reserve of about 42 million tons. Acquisition of these additional reserves would result in a mine life of nearly 15 years.~~ The existing mine plan assumes that mining in the area northeast of Whitmore Canyon will be limited by heavy cover (plus 3000'). However, if conditions allow, mining activity will continue as far as possible in this direction on federal coal which would be leased in the future.

Full production could be reached by a gradual buildup during the first two years of mining. ~~See Map 5A for mine projections and timing information for the initial mining area. See Map 5B for mine projections and timing information for the future expanded mining area.~~

Major equipment for the mine will include:

Continuous Mining System:

- Drum-Type Continuous Mining Machine
- Shuttle Cars
- Roof Bolter
- Diesel Scoop Tractor
- Feeder Breaker
- Section Power Center
- Section Auxiliary Face Ventilation Fan

Longwall Mining System:

- Double Drum Shearing Machine
- Armored Face Conveyor
- Hydraulically Activated Shield Roof Support
- Armored Stage Loader and Crusher
- Longwall Power Center
- High Pressure Hydraulic Pumping System

No surface coal mining (strip mining) will be done.

All mining will be done in accordance with the provisions of the approved R2P2 and the terms and stipulations of the federal and state leases within the West Ridge mining area. Stipulation 17 of federal lease UTU-78562 and the approved R2P2 will not allow full extraction longwall mining in panel #7 until a seismic analysis report is completed and BLM determines that seismic/subsidence effects of longwall mining on the Grassy Trail dam and reservoir have been satisfactorily addressed. This study is ongoing and will be added to the MRP upon its completion.

Mitigation

Mitigation measures may include: grading of damage resulting from subsidence on grazable lands (where accessible), fencing to restrict access (where necessary) and restoration of adversely affected roads and trails. Graded areas will be reseeded using a seed mix designated by the BLM.

525.200 Subsidence Control

WEST RIDGE Resources, Inc. will adopt measures which are technologically and economically feasible to prevent subsidence under areas to be protected and to provide for planned controlled subsidence in all other areas. WEST RIDGE Resources, Inc. will comply with all provisions of the approved subsidence control plan.

Material damage resulting from subsidence will be corrected to the extent technologically and economically feasible. Where possible, the land will be restored to a condition comparable to the use it supported prior to subsidence.

Mining will not be conducted beneath or adjacent to public buildings, churches, schools, hospitals. None of these structures exist within or adjacent to the permit area. A small portion of Grassy Trail Reservoir (less than 0.6 acres) lies within a corner of the permit area. Grassy Trail Reservoir impounds more than 20 acre feet of water. However, there will be no mining or mining related subsidence below this reservoir.

Longwall panel layout may change depending on conditions encountered in the underground workings. As longwall mining approaches Grass Trail Reservoir, existing ongoing subsidence monitoring information will be used to determine the actual angle of draw and subsidence ratio specific to this area. Based on this empirical information the underground workings will be designed to ensure that the reservoir is not adversely affected by mining activity.

The Grassy Trail Reservoir, which impounds more than 20 acre-feet of water, is located partially within and adjacent to the permit area. There will be no mining conducted beneath the reservoir or impoundment structure. As presently planned, Panel 7 is the closest longwall panel to Grassy Trail Reservoir, located approximately 995' from the reservoir measured horizontally. This panel is also 1664' below the reservoir at this point.

WEST RIDGE Resources has hired R, B &G Engineering to prepare a study of the risk to the Grassy Trail dam and reservoir from seismicity and subsidence associated with longwall mining in the West Ridge Mine. This study will involve collection of additional data from newly-installed accelerometers, subsidence monitoring stations, and piezometers in the area around the dam. This study is being conducted with input from

BLM, DOGM, Division of Dam Safety, and East Carbon City. Stipulation 17 of federal lease UTU-78562 states the following:

"17. SEISMIC STIPULATION: Mining operations shall be conducted in a manner to prevent seismic events that would cause damage to surface or subsurface structures such as: power lines or mine pillars and other structures such as Grassy Trail Reservoir and/or create hazardous conditions such as landslides.

The Lessee shall: (1) Provide a seismic risk assessment of the Grassy Trail Reservoir to the AO prior to mining in the lease. (2) Prior to mining in the lease, the Lessee shall provide a plan to monitor the Reservoir and the steps necessary to mitigate any damage created by the lessee. These plans shall be updated by the Lessee as deemed necessary by the AO.

The AO will either approve or may prescribe the mining methods used, the amount of coal recovered or determine the corrective measures necessary to assure protection of surface or subsurface structures and resources. The Lessee is and will remain liable for any and all damages or hazardous conditions resulting from the mining operations under the lease."

(Refer to Appendix 1-4)

In the most recent R2P2 approval (see appendix 5-3A), BLM approved longwall mining in panel #6. Development of the tail-gate entries for panel #7 is also approved. However, the R2P2 states, "Longwall mining of Panel 7 is not approved at this time. Approval of Panel 7 will be contingent on receipt of final seismic analysis report(s), updated data from the on-going monitoring, and receipt of BLM of adequate contingency plan(s) addressing mitigating steps." Therefore, WEST RIDGE Resources acknowledges that Division approval of the Incidental Boundary Change for the Penta Creek fee lease is only for first mining of the tail-gate entries for panel 7 and that approval of longwall mining (i.e. full extraction mining) in panel 7 will not be issued until the seismic analysis is completed, the conditions of Lease Stipulation 17 have been complied with to the satisfaction of BLM and the Division, and R2P2 approval of full extraction of panel 7 has been granted by BLM. When the seismic analysis report is finalized it will be added to the MRP as Appendix 5-9.

525.300

Public Notice of Proposed Mining

No coal mining will be conducted under any buildings, facilities or impoundments. The BLM will be kept informed as to the dates and locations of mining activities. All owners of surface property and structures (BLM) above the underground works will receive notification at least six months prior to mining of the specific areas in which mining will take place, dates of mining and the location at which the subsidence control plan may be examined.

AMENDED R2P2 APPROVAL LETTER (BLM)

APPENDIX 5-3A

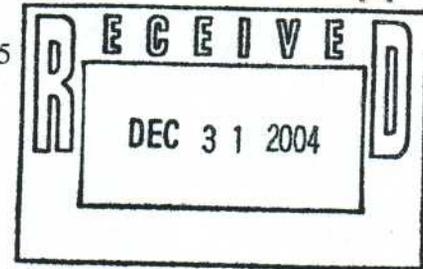


United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
<http://www.blm.gov>



DEC 16 2004

IN REPLY PLEASE REFER TO:
3482, SL-068754, UTU-78562, (UT-923)

Certified Mail--Return Receipt Requested

Mr. John C. Lewis
Mining Engineer
West Ridge Resources, Inc.
P. O. Box 1077
Price, Utah 84501

Re: Minor Modification, Resource Recovery and Protection Plan (R2P2), Clarification for Longwall Panel #6, West Ridge Mine

Dear Mr. Lewis:

The Bureau of Land Management (BLM) approved on July 21, 2004, a number of changes to the subject R2P2 with conditions. The approval for proposed longwall panel #6 was conditioned on West Ridge Resources, Inc. (West Ridge) addressing subsidence and seismic issues related to the Grassy Trails Reservoir as per UTU-78562 Lease Stipulation 17:

17. SEISMIC STIPULATION: Mining operations shall be conducted in a manner to prevent seismic events that would cause damage to surface or subsurface structures such as: power lines or mine pillars and other structures such as Grassy Trail Reservoir and/or create hazardous conditions such as landslides.

The Lessee shall: (1) Provide a seismic risk assessment of the Grassy Trail Reservoir to the AO prior to mining in the lease. (2) Prior to mining in the lease, the Lessee shall provide a plan to monitor the Reservoir and the steps necessary to mitigate any damage created by the Lessee. These plans shall be updated by the Lessee as deemed necessary by the AO.

The AO will either approve or may prescribe the mining methods used, the amount of coal recovered or determine the corrective measures necessary to assure protection of surface or subsurface structures and resources. The Lessee is and will remain liable for any and all damages or hazardous conditions resulting from the mining operations under the lease.

West Ridge has submitted explanations why the extraction of panel #6 should proceed and requests approval for panel #6 extraction.

West Ridge has submitted a summary letter (received 13 December 2004) based on the location of the panels, past experience, and final and preliminary information from consultant evaluations:

... At this time, a final report from Agapito & Associates (enclosed) concludes that the risks from mining of Panel #7 to the Grassy Trail Dam & Reservoir would be minimal with regard to potential ground deformation(s), obviously the risks for mining Panel #6 would be even less.

West Ridge Resources, Inc. does not expect the seismic events generated from the mining of Panel #6 to impact the Grassy Trail Dam or Reservoir due to the fact that Panel #6 is approximately 1,800 linear feet away from the dam at a depth of 1,800 ft. The West Ridge Mine started longwall mining operations in May 2001, since that time the University of Utah seismograph network has recorded a total of 9 seismic events in the vicinity of the West Ridge Mine since May 2001 ranging in magnitude from 1.90 to 1.55...

This West Ridge letter further states that the preliminary seismic evaluation concludes a magnitude levels of 1.55 - 1.90 is well below a level that would cause deformation of the dam. Further, that no historical data for the area (starting on 1 July 1962) recorded an event that reached a level that would cause deformation of the dam.

Based on the information provided, longwall panel #6 can now be extracted. West Ridge is authorized to extract longwall panel #6 per the approved R2P2, having met the conditions for approval. BLM is to be notified if any new events are recorded or noted that indicate the existing conclusions need to be questioned, such as higher than historic maximum seismic levels. (West Ridge is continuing in the process of gathering data and addressing if future mining closer to the Grassy Trails Reservoir will have any negative affects to the dam and reservoir.)

West Ridge has stated that the probability of a dam failure is very small, so specific written mitigation steps are not necessary. Further, that the unlikely event of a sudden loss of water would most likely not negatively affect downstream structures or the public.

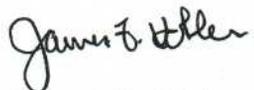
Longwall mining of Panel 7 is not approved at this time. Approval of longwall Panel 7 will be contingent on receipt of final seismic analysis report(s), updated data from the ongoing monitoring, and receipt by BLM of adequate written contingency plan(s) addressing mitigating steps.

This approval of a minor modification to an existing R2P2 is Categorically Excluded from National Environmental Policy Act (NEPA) analysis in that no new surface disturbance will occur from this action as stated in Overview of BLM's NEPA Process, February 1997, Appendix 2, page 2-7 (F)(7).

Authorization to longwall mine panel #6 per conditional approval dated July 21, 2004, complies with the Mineral Leasing Act of 1920, as amended, the regulations at 43 CFR 3480, the lease terms and conditions, and will achieve maximum economic recovery of the Federal coal. A copy of the approved mine map showing authorization of panel #6, is enclosed.

If you have any questions, please contact Stephen Falk of the Price Field Office at (435) 636-3605.

Sincerely,



James F. Kohler
Chief, Solid Minerals Branch

Enclosure
Approved Mine Map

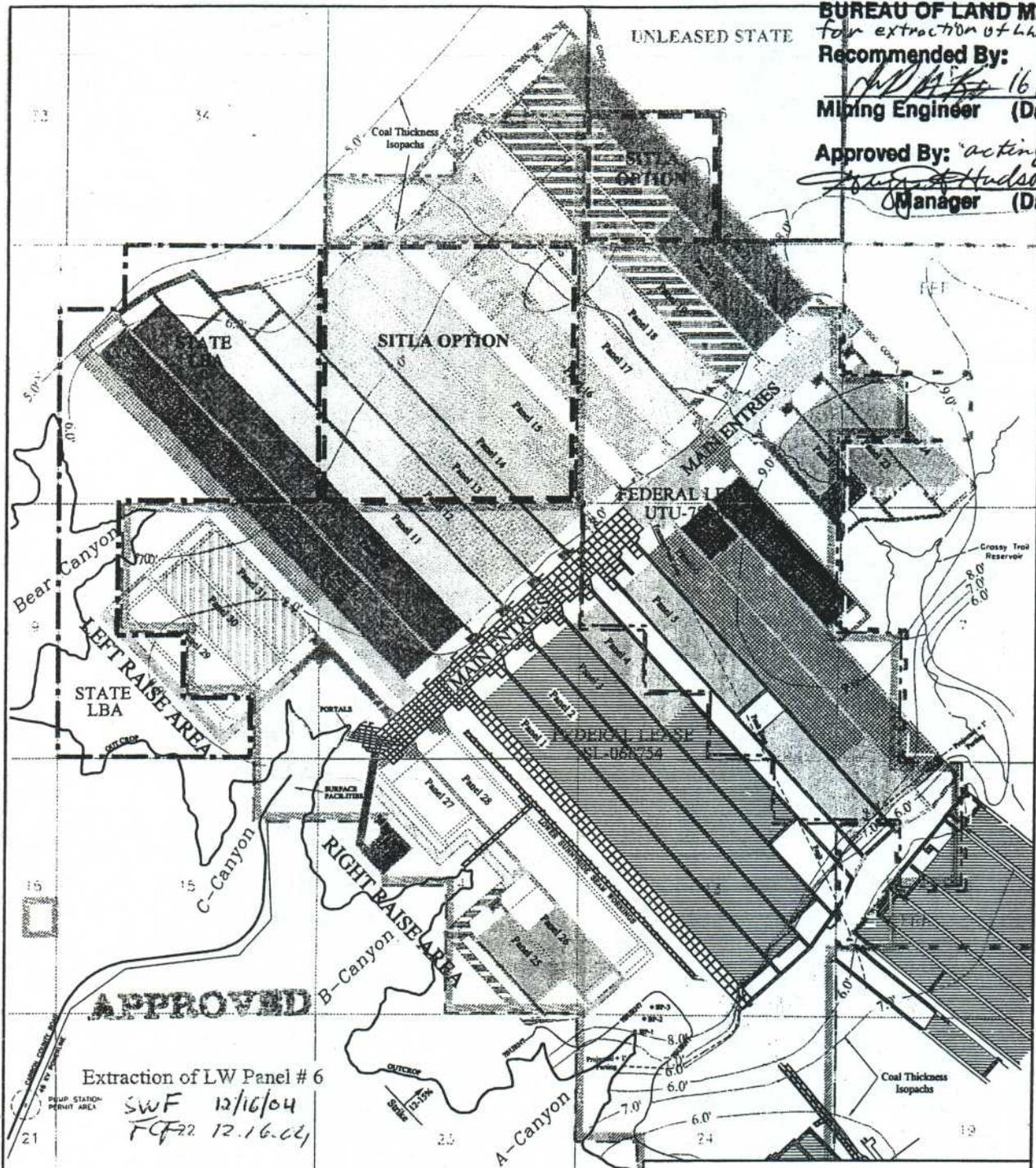
cc: Price Field Office (UT-070) (w/ encl)

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

MINING PLAN APPROVED BY BUREAU OF LAND MANAGEMENT

for extraction of LW Panel #6
Recommended By:
[Signature] 16 Dec, 2004
Mining Engineer (Date)

Approved By: "acting"
[Signature] 21 Dec.
Manager (Date)



APPROVED

Extraction of LW Panel # 6
 SWF 12/16/04
 FCF 12.16.04

- Note: Burn may be encountered down-dip from the outcrop in the Right & Left Raise areas which may require changes to the mine projections shown for those areas.
- Note: Mine projections are subject to change depending on conditions encountered in the underground mine workings.
- Note: Actual mine works shown are existing as of January 20, 2004.
- Note: Mine projections are based on future reserve acquisitions and are subject to future federal, state and local permitting requirements.

MINE TIMING LEGEND:

MINE PROJECTIONS IN 2004	MINE PROJECTIONS IN 2011
MINE PROJECTIONS IN 2005	MINE PROJECTIONS IN 2012
MINE PROJECTIONS IN 2006	MINE PROJECTIONS IN 2013
MINE PROJECTIONS IN 2007	MINE PROJECTIONS IN 2014
MINE PROJECTIONS IN 2008	MINE PROJECTIONS IN 2015
MINE PROJECTIONS IN 2009	MINE PROJECTIONS IN 2016
MINE PROJECTIONS IN 2010	MINE PROJECTIONS IN 2017

**R2P2
 PLATE #5B
 Mining Projections
 (Extended Reserve)**

MAP LEGEND:

Permit Boundary	Coal Thickness Isopach
Federal Lease (SL-068754)	
Federal Lease (UTU-78562)	
STATE LBA	
Penta Creek Fee	
SITLA Option	
Unreleased State	
Leased Penta Creek Fee	



**WEST RIDGE
 RESOURCES, INC.**

SCALE: 1" = 2000'

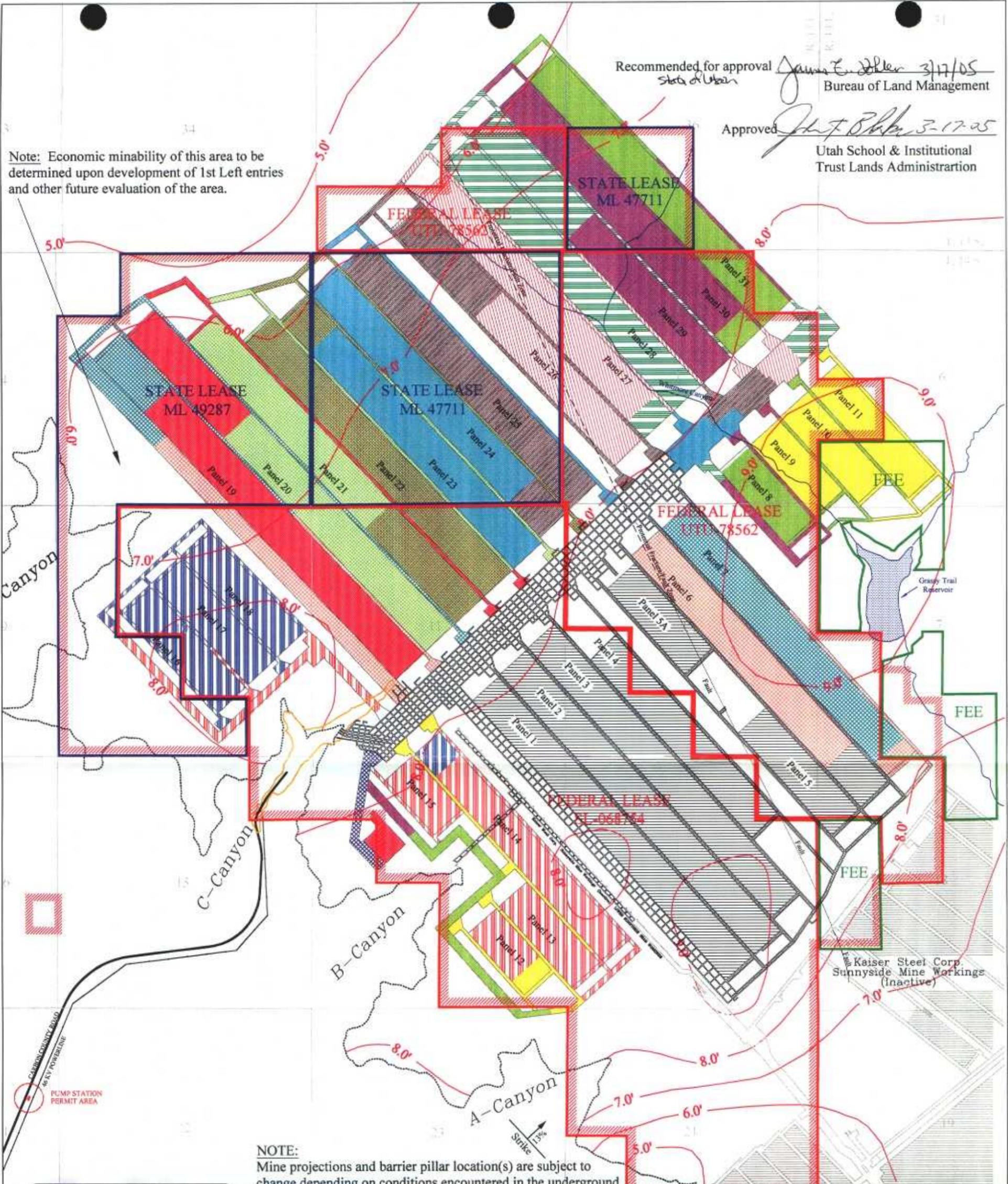
APPENDIX 5-10

**SITLA MINE PLAN APPROVAL
STATE LEASE ML-47711 AND ML-49287**

Recommended for approval *James E. Miller 3/17/05*
 State of Utah
 Bureau of Land Management

Approved *John F. Baker 3-17-05*
 Utah School & Institutional
 Trust Lands Administration

Note: Economic minability of this area to be determined upon development of 1st Left entries and other future evaluation of the area.



NOTE:
 Mine projections and barrier pillar location(s) are subject to change depending on conditions encountered in the underground mine workings.
 Actual mine works are shown as of March 01, 2005.
 Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.
 West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.
 Longwall mining will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM.

Kaiser Steel Corp.
 Sunnyside Mine Workings
 (Inactive)

UTAH REGISTERED PROFESSIONAL ENGINEER
 #191488
 John Christopher Lewis
 3-18-05
 JOHN CHRISTOPHER LEWIS, P.E. NO. 191488

2005	2011
2006	2012
2007	2013
2008	2014
2009	2015
2010	2016
	2017
Mined Area	

WEST RIDGE MINE

Mine Plan

LEGEND:

Permit Boundary (PENDING)	
Federal Lease	
State Lease (ML 49287)	
Penta Creek Fee	
Surface Facility Area	
Outcrop	



SCALE: 1"=2000'

SITLA APPROVAL OF MINE PLAN

FOR

STATE LEASE ML-47711 AND ML-49287

MARCH 17, 2005

should not pose a significant problem because the coal will be stockpiled in a relatively contained area of the mineyard and all runoff from the site will flow to the sediment pond for containment. At the time of reclamation, the coal will be removed from the site prior to the commencement of any regrading activities. Also, any waste rock generated through underground activities, such as construction of overcasts, will be permanently stored underground and therefore should not be a factor in surface reclamation activities.

623.300 Subsidence Control Plan

Map 5-7 shows the locations of the subsidence monitoring control points proposed for the initial mining area. Refer to R645-301-525 in Chapter 5 for the discussion on subsidence. **The geology of the area around Grassy Trail reservoir will be discussed in a seismic analysis report presently being prepared. This report will be added to the MRP in the future as Appendix 5-9. Longwall mining will not be permitted in the area of Grassy Trail reservoir until approved in the R2P2 by the BLM based on the conclusions of the pending seismic analysis report.**

R645-301-624

GEOLOGIC DESCRIPTION

624.100 Regional and Structural Geology

The proposed permit area is located in the Sunnyside coal-mining district, an area in the western Book Cliffs on the northern margin of the Colorado Plateau. The proposed permit area is bounded on the southwest by East Carbon Valley and on the northeast by Whitmore Canyon. The permit area is bounded by the existing (abandoned) Sunnyside Mines on the south. Elevations in the area range from 7,000 to 8,500 feet.

The permit area is underlain by north to northeast dipping clastic sedimentary rocks deposited during the Cretaceous and Tertiary period. The regional dip is a result of the effect of the San Rafael Swell located to the southwest.

Professional papers by Osterwald et al. (1981) and Doelling et al. (1979) have described the geology of the region. Kaiser Coal Corporation (1986) has described the geology of the proposed permit area in a previous permit application submitted to the Division of Oil, Gas and Mining during the mid 1980's. Pike Coal Company (1988) has prepared a report describing the geology and coal reserves of the general permit area (in-house report). Sunnyside Coal Company (1993) has described the geology of the coal leases located immediately to the southeast of the proposed permit area. The geologic description that follows is based on information from these sources.

Colton and North Horn Formations within the permit area may discharge as springs in Whitmore Canyon because of the northeasterly dip of the rocks. Due to abundant claystone and mudstone in these formations and the thickness of the interburden between these formations and the mining horizon, mining will not impact groundwater in these horizons.

Adjacent to the permit area, the upper slopes of the east side of West Ridge are the recharge area for Colton Formation groundwater systems that discharge as springs in Whitmore Canyon and contribute base flow to Grassy Trail Creek. These groundwater systems occur in the shallow subsurface and will not be undermined. Mining will have no impact on the recharge and discharge of these springs.

724.700 Not applicable.

R645-301-725 Baseline Cumulative Impact Area Information

Mayo and Associates (1997; Appendix 7-1, 2001; Appendix 7-1A) have analyzed geologic and hydrologic information and prepared a document describing the surface-water and groundwater systems of the permit and adjacent areas. This report contains the information to assess the probable cumulative hydrologic impacts of coal mining and reclamation operations as required by R645-301-729.

The hydrology and geology of the area around Grassy Trail reservoir will be discussed in a seismic analysis report presently being prepared. This report will analyze the potential effect of longwall mining on Grassy Trail dam and reservoir. This report will be added to the MRP in the future as Appendix 5-9. Longwall mining will not be permitted in the area of Grassy Trail reservoir until approved in the R2P2 by the BLM based on the conclusions of the pending seismic analysis report.

R645-301-726 Modeling

No numerical models have been created for the permit area.

R645-301-727 Alternative Water Source Information

The determination of the probable hydrologic consequences (R645-301-728) indicates that the proposed coal mining activities will not result in the contamination, diminution, or interruption of groundwater or surface-water sources within the proposed or adjacent areas. Therefore, WEST RIDGE Resources, Inc. has not prepared information regarding alternative water sources.

R645-301-728

Probable Hydrologic Consequences (PHC) Determination

This section describes the probable hydrologic consequences (PHC) of underground coal mining in the permit area. This determination is based on the data and information presented previously in this chapter and by Mayo and Associates (1997; Appendix 7-1, 2001; Appendix 7-1A). The PHC will be updated, if needed, following the collection and analyses of information gathered during the 1998 field season.

728.310 Potential adverse impacts to the hydrologic balance

Longwall coal mining may result in land subsidence and bedrock fracturing. Subsidence and fracturing have the potential to impact the hydrologic balance if fracturing increases the vertical hydraulic conductivity of overburden rock. Possible consequences of fracturing include decreasing discharge rates of near-surface groundwater while increasing the recharge rates of deeper groundwater systems.

Mining will occur in the Lower Sunnyside Seam of the Blackhawk Formation. Over 90% of the springs in the West Ridge area discharge from near-surface groundwater systems in alluvial/colluvial materials and the Colton and North Horn Formations. The thick interburden between the mined horizon and the near-surface groundwater systems and the presence of swelling clays in the North Horn Formation will prevent fracturing and subsidence from increasing vertical hydraulic conductivities and decreasing spring discharge rates.

Groundwater that is encountered by mining operations will likely be old, meaning that recharge occurred thousands of years in the past. Well DH86-2 encountered water in the Sunnyside Sandstone below the coal seam to be mined. This water has a radiocarbon age in excess of 11,000 years.

Groundwater systems encountered in the Blackhawk Formation occur in isolated sandstone paleochannels, fractures, and faults. These groundwater systems are not in active hydraulic communication with the surface and have limited areal and vertical extent. Mining could dewater some of these systems if they are intercepted during mining operations. Because of the limited spatial extent of these systems, discharge from these isolated groundwater systems will cease soon after interception by mine workings.

Mining could also encounter water impounded in the old Sunnyside mine workings. In order to avoid accidentally mining into flooded workings, the West Ridge mine will perform exploratory drilling ahead of development when active mine works are within 500 feet of the projected Sunnyside workings. Face drills will be used to drill at least 100 feet out in advance of the actual mine face development. The exploratory face drill will be a small diameter and if water is encountered from the old works the drill

hole can easily be plugged and sealed. The West Ridge mine plan assumes that development will proceed to within 300 feet of the old works. West Ridge mine intends to stay away from the old works but will drill ahead as a precautionary measure in the event that the mine maps or surveying has a margin of error.

Based on the analysis of the probable hydrologic consequences (PHC), it has been concluded that it is highly unlikely that mining in the West Ridge area will result in the decrease of groundwater discharge rates.

Grassy Trail Creek above Grassy Trail Reservoir flows across the WEST RIDGE permit area. The stream channel in this area is underlain by approximately 2,000 feet of cover, which includes the entire thickness of relatively unfaulted and unfractured North Horn Formation, which is known to form an effective barrier to vertical groundwater migration (Mayo and Associates, 1998) and is known to contain hydrophillic clays that swell when wetted to seal any fractures that may form. Therefore, the potential for the interception and diminution of surface water flows in Grassy Trail Creek as a result of mining induced subsidence is minimal. Where differential subsidence may potentially occur beneath Grassy Trail Creek, such as along longwall panel ends or above gate roads, there is the potential for localized increases or decreases in stream gradients. These changes can result in minor changes to the stream morphology, including changes in the number of pools, runs, glides, etc. Differential subsidence of the channel substrate also has the potential to result in temporary increases or decreases in sediment yield. However, because a steep, mountain stream flowing on alluvial or soft bedrock substrate has the tendency to rapidly erode elevated areas and deposit sediment in lowered areas, these effects are commonly short-lived, as the stream system is rapidly brought back into equilibrium.

In order to assess the impacts of full extraction mining beneath perennial streams in the Utah Coal District, several comprehensive investigations of the Burnout Canyon drainage above Canyon Fuel's Skyline Mine have been conducted (Forest Sciences Laboratory, 1998; Sidel, 2000). The findings of these investigations indicated that 1) baseflow discharge rates during and after subsidence of the drainage were not statistically different at the 0.05 level, 2) there was no indication that water was lost from Burnout Creek as a result of longwall undermining of the drainage, and 3) some minor changes in stream morphology, including changes in the pool/riffle ratio of the stream channel were noted; however, similar changes in the study's control area (James Canyon) were also noted, indicating that the observed morphological changes could have been at least in part the result of non-mining-related factors. They found that the changes in channel morphology were generally short lived. Subsequent to the publication of these investigations, the Burnout Canyon drainage has been further subsided as a result of multiple seam extraction beneath the creek. No perceptible or quantifiable impacts to the drainage have been detected as a result of this mining activity (USFS, 2001).

Burnout Creek and upper Grassy Trail Creek, both being relatively steep-gradient mountain streams, are in many senses generally comparable. However, while overburden thicknesses in the Burnout Canyon area range from about 600 to 850 feet, overburden thicknesses beneath Grassy Trail Creek are approximately 2,000 feet. Therefore, it is reasonable to assume that the hydrologic impacts to upper Grassy Trail Creek, where only single seam extraction under significantly greater cover, will be similar to (or lesser than) the minimal impacts experienced in the Burnout Canyon area.

For the reasons discussed above, it is believed that the impacts to Grassy Trail Creek above Grassy Trail Reservoir as a result of longwall mining beneath the creek will be negligible.

No mining is proposed beneath or within the angle of draw of Grassy Trail Reservoir. Therefore, the potential for loss of water from reservoir leakage is believed to be negligible.

728.320 Presence of acid-forming or toxic-forming materials

Acid-forming materials in western coal mines generally consist of sulfide minerals, namely pyrite and marcasite, which, when exposed to air and water, are oxidized causing the production of H^+ ions (acid). Oxidation of pyrite will occur in the mine; however, acidic waters will not be observed in the mine. The acid is quickly consumed by dissolution of abundant, naturally occurring carbonate minerals. Iron is readily precipitated, as iron-hydroxide, and excess iron will be not observed in mine discharge water.

No other acid-forming materials or any toxic-forming materials have been identified or are suspected to exist in materials to be disturbed by mining.

728.331 Sediment yield from the disturbed area

Undisturbed drainage from C Canyon upstream from the mine yard facility area will, for the most part, be culverted underneath the mine site by means of a 4' diameter corrugated metal pipe in the right fork and a 3' diameter culvert in the left fork drainage. This culvert has been sized to meet or exceed the design storm for this drainage area. Runoff from the mine site disturbed area and whatever natural runoff which flows onto the disturbed area will be channeled to the mine site sediment pond. The drainage control system for the mine site is shown on Map 7-2.

The culvert and ditch system is designed to handle drainage from a 10 year, 24 hour

event. Any storm event that exceeds this amount will flow through the mine yard drainage structures to the sediment pond. If a storm should exceed the design event and the magnitude of the runoff exceeds the pond capacity, the over flow will be channeled through the pond cells and out the emergency spillway to the natural drainage channel below the sediment pond. This overflow will have a lower suspended solid content than the inflow to the pond or any drainage which may be flowing down the natural drainage channel. The sediment pond will detain the inflowing water and allow suspended solids to settle out in the pond cells prior to discharge. Given the ephemeral nature of the drainages and the fact that the sediment pond is designed for the complete retention of the 10 year, 24 hour storm event, it is unlikely that discharge from the sediment pond will occur very often if ever. Since the sediment pond is designed to completely contain the 10 year, 24 hour event, only a limited amount of outflow, that in excess of the design event, would be discharged. Excess water contained in the sediment pond following runoff events would be

728.334 Groundwater and surface water availability

Mining in the permit area will not significantly affect the availability of groundwater. Groundwaters in the Blackhawk Formation exist in highly compartmentalized partitions, both vertically and horizontally, and the formation does not act as a hydraulically continuous aquifer. Groundwater systems in the Blackhawk Formation are hydraulically isolated from overlying, modern groundwaters. The effects of locally dewatering the Blackhawk Formation adjacent to mine openings will not have any significant impact on groundwater availability in the region surrounding the mine.

There are no groundwater supply wells in the mine lease area or adjacent to it. The removal of water from horizons immediately above and below the mined horizon will not impact any water supplies. Rather, underground mining makes water available from the Blackhawk Formation that was previously inaccessible.

728.400

The hydrology and geology of the area around Grassy Trail reservoir will be discussed in a seismic analysis report presently being prepared. This report will analyze the potential effect of longwall mining on Grassy Trail dam and reservoir. This report will be added to the MRP in the future as Appendix 5-9. Longwall mining will not be permitted in the area of Grassy Trail reservoir until approved in the R2P2 by the BLM based on the conclusions of the pending seismic analysis report.

R645-301-729 CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT (CHIA)

The Division will provide an assessment of the probable cumulative hydrologic impacts of the proposed coal mining and reclamation operation and all anticipated coal mining and reclamation operations upon surface and groundwater systems in the cumulative impact area.

R645-301-730 OPERATION PLAN**R645-301-731 GENERAL REQUIREMENTS**

A plan has been included to minimize disturbance to the hydrologic balance, to prevent material damage, and to support postmining land use.

731.100 Hydrologic Balance Protection

Groundwater Protection

Although testing has shown that no significant impacts from acid or toxic producing materials should occur, groundwater quality will be protected by handling runoff in a manner which minimizes the infiltration into the groundwater system. Examples of techniques that may be utilized to accomplish this would include routing disturbed area drainage to the sediment pond through properly sized ditches and culverts and diverting undisturbed drainage through a bypass pipe past the disturbed area.

Within the disturbed area, drainage will be directed to ditches by sloping the yard areas. The ditches will be appropriately sized to handle flow from the 10 year/24 hour event. Culverts within the drainage system have also been sized to meet or exceed the 10 year, 24 hour design criteria.

Surface Water Protection

Coal mining and reclamation activities will be conducted according to the following plan.

The sediment pond will be installed as soon as possible during construction of the surface facility area. The pond will be appropriately sized to handle the design storm event (10 year, 24 hour) for the mine site.

Protection of surface water will incorporate measures cited under Groundwater Protection. All surface runoff from the mine site disturbed area will be diverted to the sediment pond for treatment. The sediment pond has been designed to provide total containment for the 10 year/24 hour storm plus three years of sediment accumulation. Based on sampling of the soils in the area and the fact that waste rock material will not be stored on the surface, it is unlikely that the sediment pond will impound acid- or toxic-drainage.

It is anticipated, based on the climate of the area, that the sediment pond will remain dry most of the time. (This has been demonstrated to be true for existing coal mining operations in central Utah.) Water in the pond should evaporate rapidly following precipitation events. Infiltration into ground water zones is not expected because of the interbedded nature of the strata below the pond. Thick sequences of shale in the bedrock below the pond will greatly limit the vertical movement of water. Also, the alkaline nature of other sediment flowing to the sediment pond would serve to neutralize any low pH materials when mingled together.

To minimize disturbance to the undisturbed drainage, large diameter bypass culverts will be installed beneath the mine yard facility to allow runoff upstream above the mine site to continue downstream without coming in contact with and becoming contaminated by the mine yard area.

The bypass culvert system will be the first structure to be installed during construction of the mine site facility. Undisturbed area drainage will be bypassed under the disturbed area to minimize the amount of drainage that must be treated by the sediment pond. The bypass culverts will allow natural drainage to continue down the drainage course unaffected by the mining operation. A 36" diameter culvert will be installed in the left fork and a 48" diameter culvert will be installed in the right fork. A 48" culvert will be installed in the main canyon below the confluence of the forks. The size of the culverts will adequately pass the 100 year, 6 hour flow event even though a smaller culvert would meet the requirements of the regulations.

At the topsoil pile locations, undisturbed drainage will be diverted around the stockpiles with ditches at the edge of the pile toward the undisturbed drainage channel. The ditches will divert water away from the stockpile to minimize erosion. The ditches have been sized to convey flow from the 10 year, 24 hour event. The ditches will slope 1% toward the natural drainage. A typical ditch design is presented in Appendix 7-4 "West Ridge Mine Sedimentation and Drainage Control Plan". The stockpiled topsoil material will be loosely piled and have an irregular, pitted surface or contour furrows to help retain runoff from precipitation events and to reduce erosion until vegetation becomes reestablished. A diversion ditch will be constructed at the edge of the stockpile to divert undisturbed drainage away from the stockpile. Silt fencing will be placed around the perimeter of the stockpile to treat any runoff from the pile.

The topsoil stockpile and test plots will be designated as Alternate Sediment Control Areas (ASCAs).

Refer to Appendix 5-5 for a complete discussion on the construction of the topsoil stockpiles. Refer to Appendix 7-4 for details of the drainage control designs. Map 2-4 depicts the drainage controls of the topsoil stockpile areas.

731.200

Water Monitoring

This section describes the hydrologic monitoring plan. Locations of surface-water and groundwater monitoring sites are indicated on Map 7-6. Hydrologic monitoring protocols, sampling frequencies, and sampling sites are described in Table 7-1 through 7-6. Operational field and laboratory hydrologic monitoring parameters for surface water are listed in Table 7-2, and for groundwater in Table 7-3. The hydrologic monitoring parameters have been selected in consultation with the DOGM's directive Tech-004, *Water Monitoring Programs for Coal Mines*.

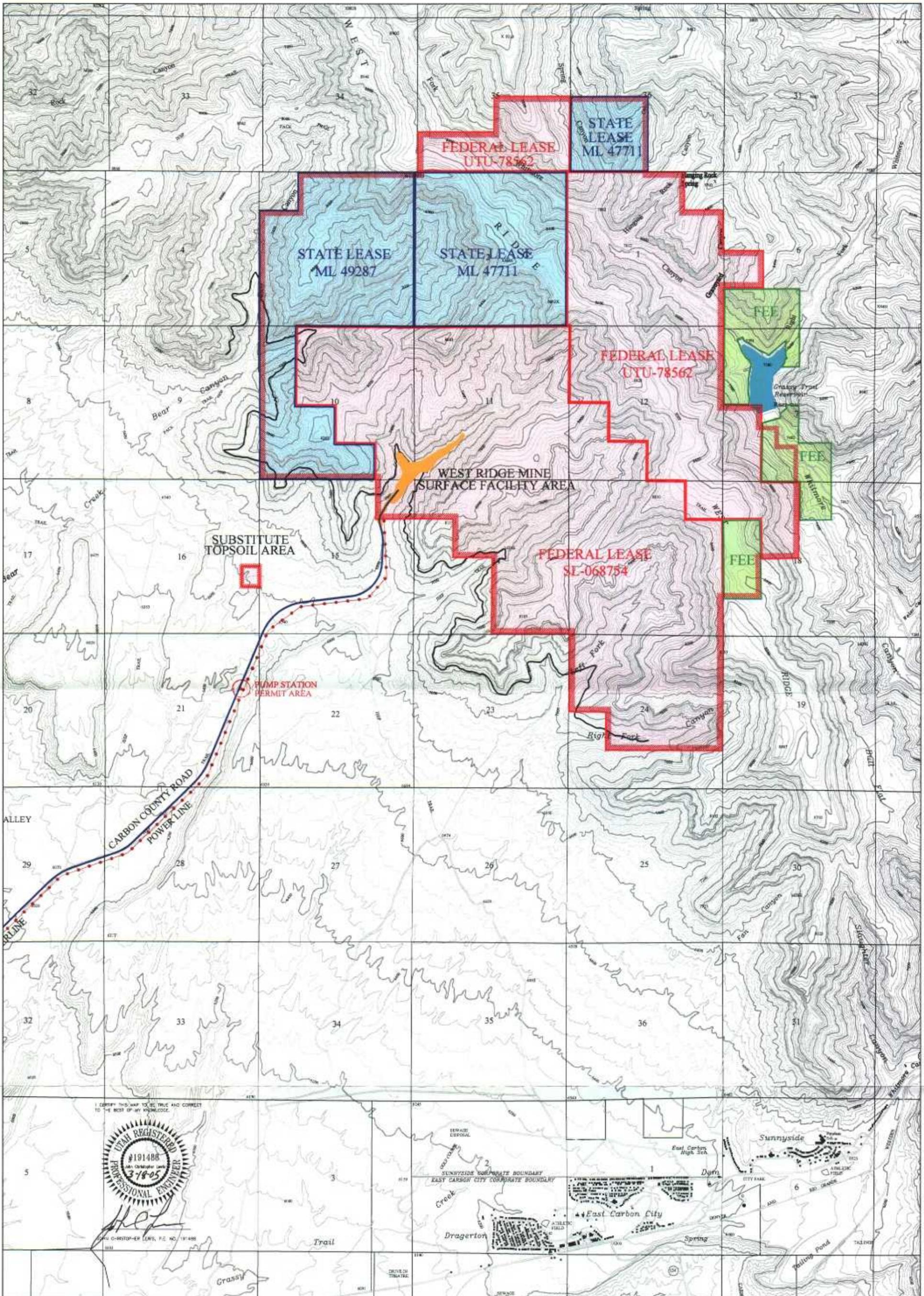
Operational field and laboratory parameters will be measured for the first two years of mine operation; after this time, if sampling has adequately characterized the

hydrology in the area, a request will be made to reduce monitoring to field parameters and one operational analytical sample collected during low flow (August or September). The physical parameters and chemical composition of springs and streams in and around the permit area should be adequately characterized following the collection of three years of baseline laboratory data (in progress) and two years of operational laboratory data. (The first year of field data was collected in 1985-1986. Two additional years of monitoring are being conducted in 1997 and 1998). Thereafter, continued monitoring for laboratory parameters would probably not enhance the scientific understanding of hydrologic systems in the mine permit area. However, in order to identify mining-related impacts to the discharge and chemical characteristics of streams and springs in the permit and adjacent area, monitoring of field parameters will continue during mine operation. If field parameters (pH, specific conductance, and temperature) at any sampling site deviate significantly from historical values, monitoring of operational laboratory water quality will resume at that site. Water monitoring reports will be submitted on a quarterly basis to UDOGM. Should any ground water or surface water samples indicate noncompliance with the permit conditions, the operator will promptly notify the Division and immediately provide for any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and will provide the results of the sampling to the Division.

WEST RIDGE Resources, Inc. believes that discontinuance of laboratory parameters after two years of operation will be approvable for two reasons. First, there are no mechanisms whereby the chemical composition of springs and streams that are above the mine workings can be adversely impacted by mining activities. Second, this type of groundwater monitoring program has been approved for the Alkali Creek and Dugout Canyon tracts at the Soldier Creek Mine, 10 miles north of the West Ridge area.

Each of the sampling locations and their hydrologic significance are described below. However, in order to comply with UDOGM directive Tech-004, baseline samples will be collected from each spring in the monitoring program during the low flow (fall) sampling and from each stream monitoring site during low flow every five years beginning with the first mid-term review. The five year baseline samples will be repeated every five years until reclamation is complete.

Baseline monitoring will be performed on the specified monitoring sites until construction of the mine and mine facilities begins. Once construction is initiated, the operational monitoring schedule will be utilized. Monitoring will continue through reclamation until bond release unless otherwise modified.



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UTAH REGISTERED PROFESSIONAL ENGINEER
 #191488
 3-18-05

DAVID CHRISTOPHER LEWIS, P.E. NO. 191488

WEST RIDGE MINE

Map 1-1

Location Map

DATE: 03-15-05 REV: 5 ACAD REF: MAF1-1 LOCATION

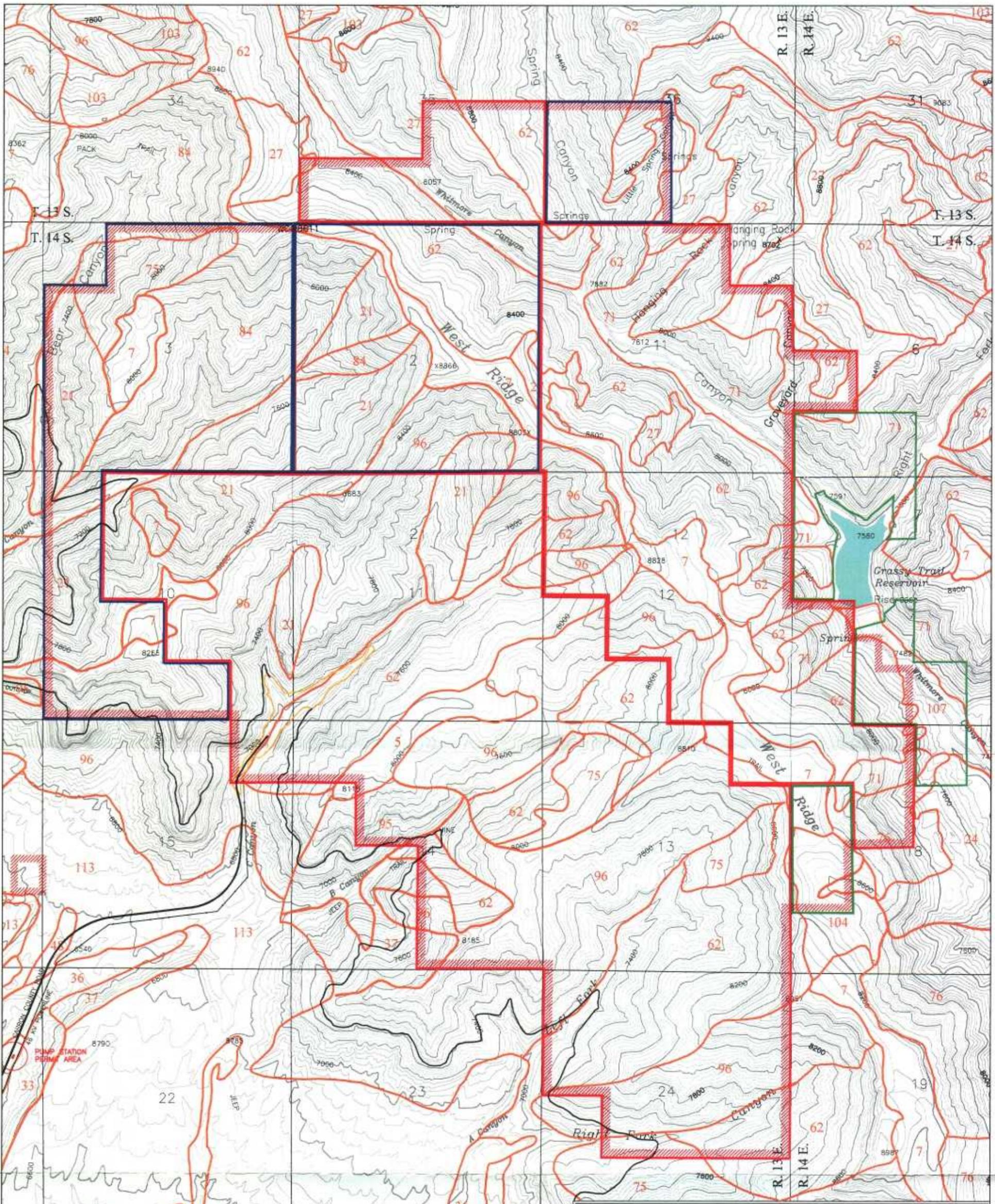
LEGEND:

Permit Boundary (PENDING)	
Federal Lease	
State Lease	
Penta Creek Fee	
Surface Facility Area	
Outcrop	
Power Line	

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SCALE: 1" = 3000'



Soil information from: Soil Survey of Carbon Area, Utah, NRCS

SOIL MAP UNITS	
5	Beje complex
7	Bejo-Trag complex
21	Crovelin loam, 8 to 50 percent slopes
24	Dulso-Variant very stony loam, 50 to 80 percent slopes
27	Dulso-Tulso families complex
33	Qero-Bulland-Bulland complex, 15 to 50 percent slopes
36	Cent-Stych-Bulland complex, 3 to 50 percent slopes
37	Cent-Stych-Bulland complex, 50 to 70 percent slopes
48	Haverdell loam, 1 to 5 percent slopes
52	Bernander family, 3 to 8 percent slopes
62	Midlock family-Cosmodos complex
71	Pulland extremely leucosolic fine sandy loam, 40 to 70 percent slopes
75	Perma family, 15 to 40 percent slopes
76	Perma family-Danus complex
84	Pada-Rock outcrop complex
95	Rock outcrop
96	Rock outcrop-Bulland-Tres complex
101	Sancher loam, 3 to 15 percent slopes
103	Sancher-Tulso family complex
104	Sancher family, 3 to 15 percent slopes
107	Shaper-Wright complex
111	Stych very stony loam, 3 to 15 percent slopes
121	Ulna-Tulso families complex

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PROFESSIONAL ENGINEER
 #191488
 DATE: 03/15/05
 345-03

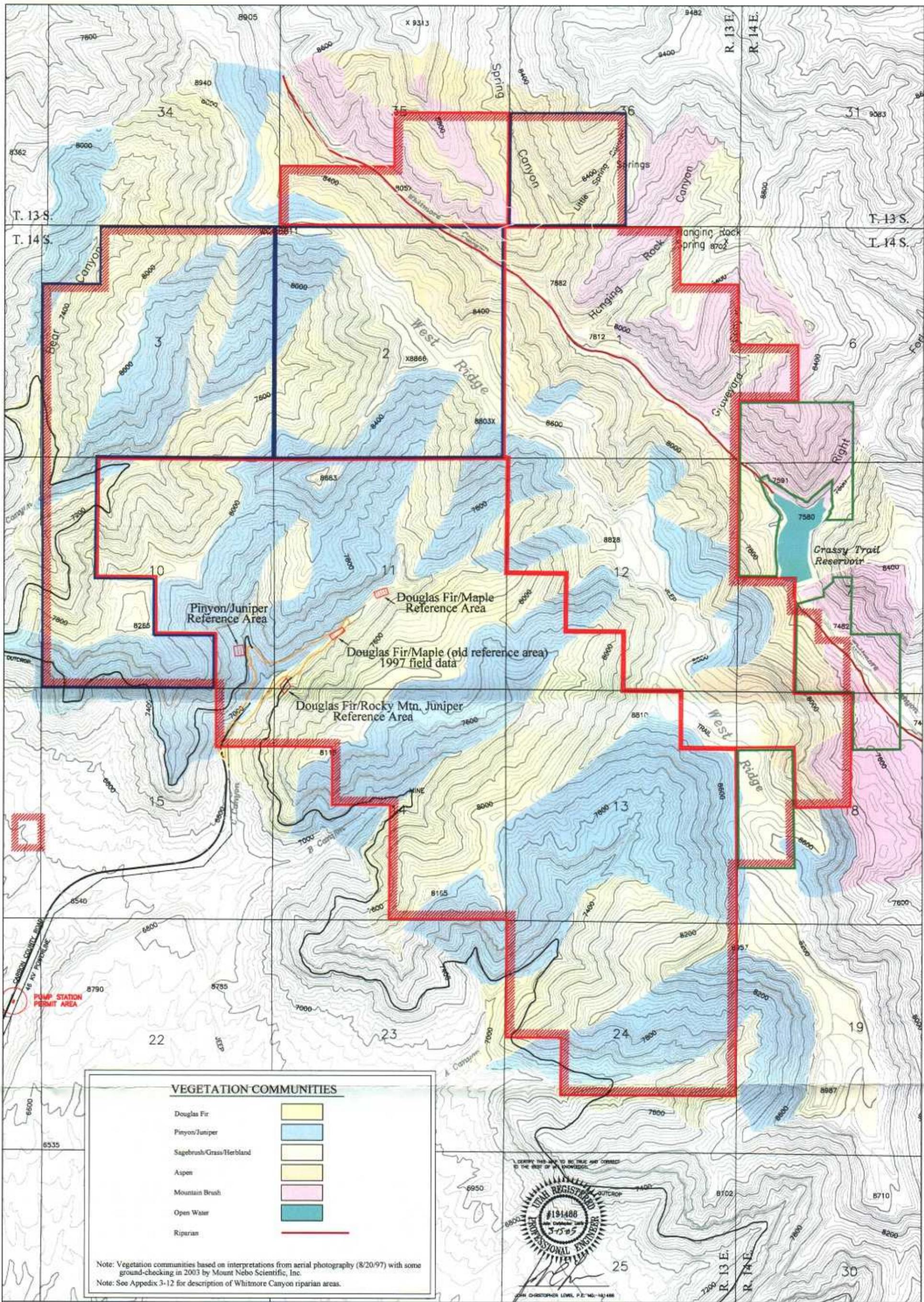
LEGEND:
 Permit Boundary (PENDING)
 Federal Lease
 State Lease
 Penta Creek Fee
 Surface Facility Area
 Soil Mapping Boundary
 Soil Map Number

WEST RIDGE MINE
 Map 2-1
 Regional Soil Map



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SCALE: 1"=2000'



VEGETATION COMMUNITIES

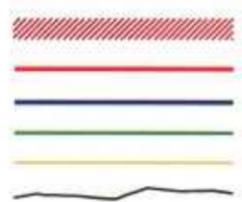
Douglas Fir	
Pinyon/Juniper	
Sagebrush/Grass/Herbland	
Aspen	
Mountain Brush	
Open Water	
Riparian	

Note: Vegetation communities based on interpretations from aerial photography (8/20/97) with some ground-checking in 2003 by Mount Nebo Scientific, Inc.
 Note: See Appendix 3-12 for description of Whitmore Canyon riparian areas.



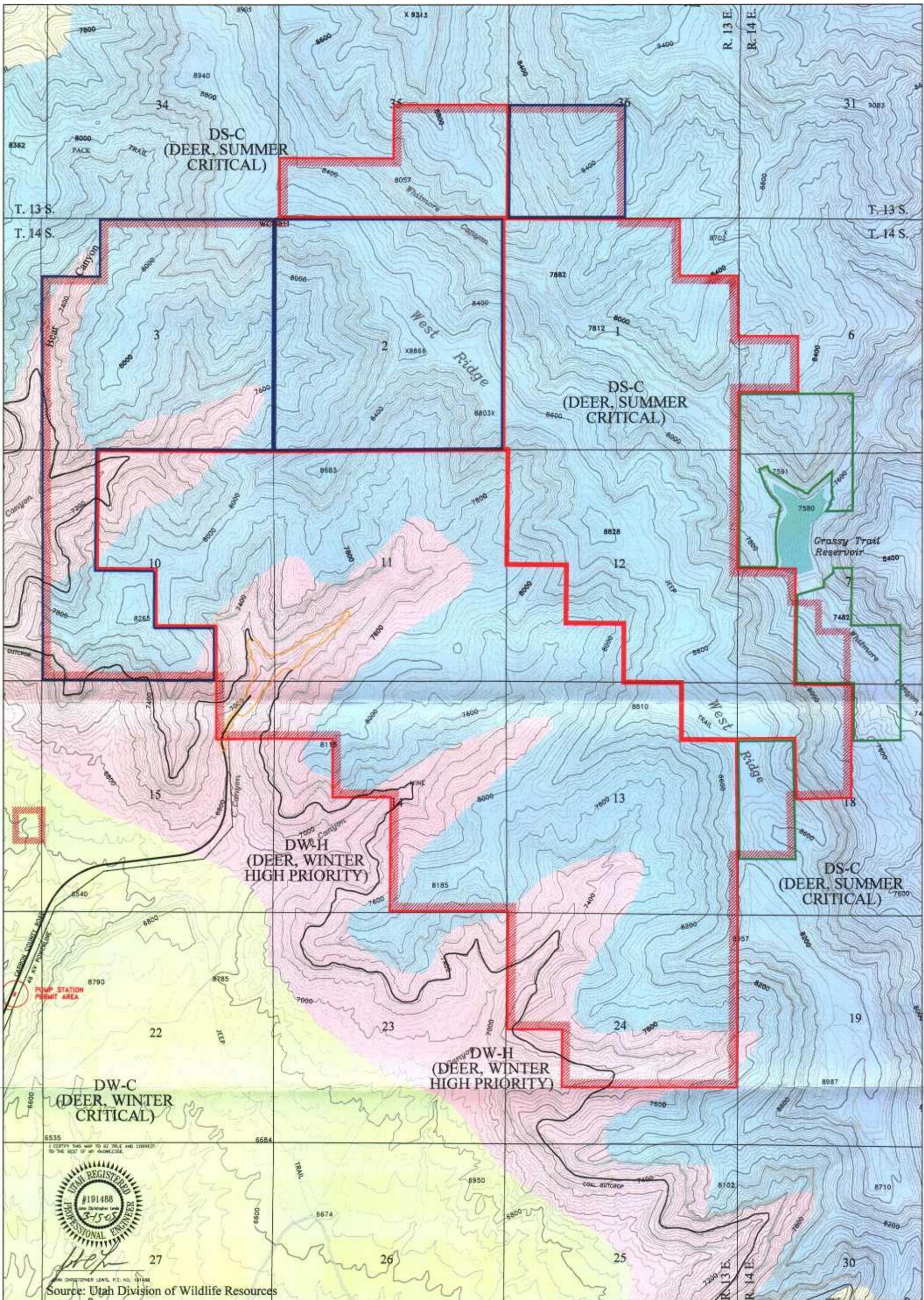
WEST RIDGE MINE
Map 3-1
General Vegetation
Communities

LEGEND:
 Permit Boundary
 (PENDING)
 Federal Lease
 State Lease
 Penta Creek Fee
 Surface Facility Area
 Outcrop



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SCALE: 1"=2000'



WEST RIDGE MINE

Map 3-4B

Wildlife Map - Deer Range

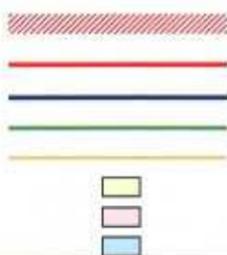
DATE: 03-15-05

REV: 1

ACAD REF: MAP3-4B DEER

LEGEND:

- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area
- DW-S
- DW-H
- DY-H



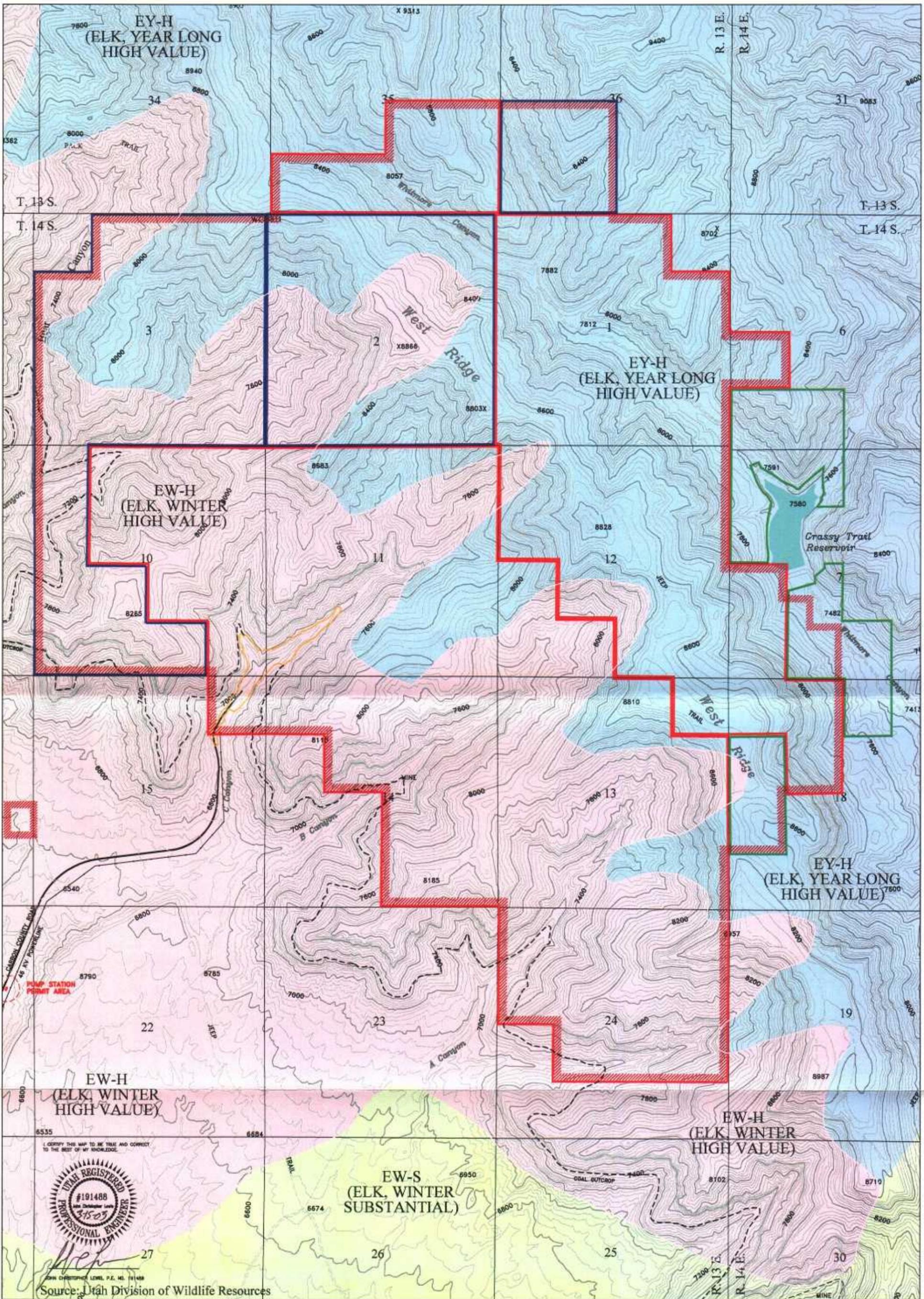
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SCALE: 1"=2000'



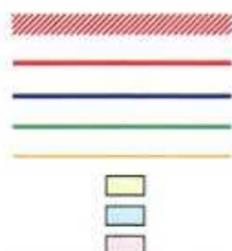
WEST RIDGE MINE

Map 3-4C

Wildlife Map - Elk Range

DATE: 03-15-05 REV: 8 ACAD REF: MAP 3-4C ELK

- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area
- EW-S
- EW-H
- EY-H

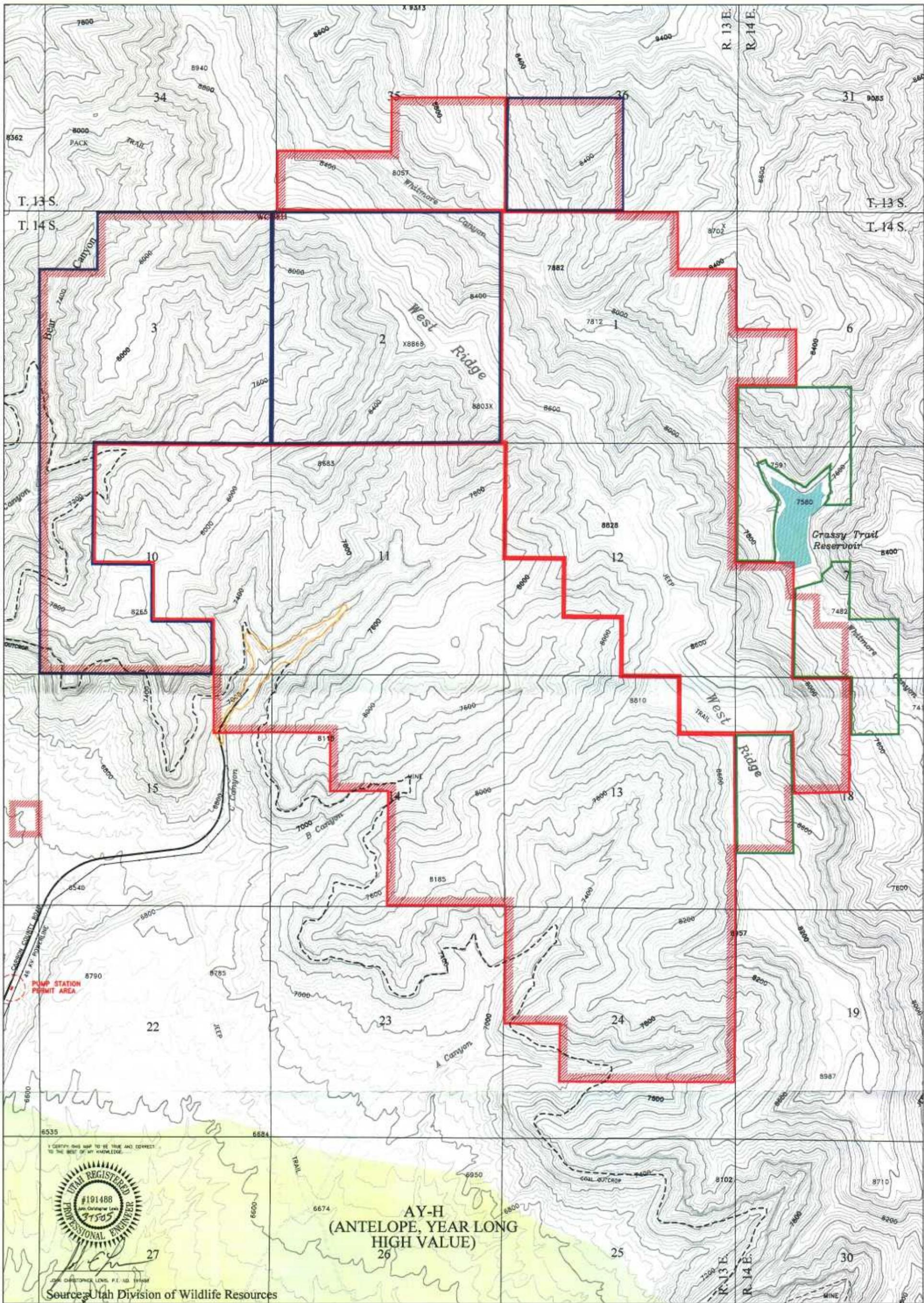


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SCALE: 1"=2000'



Source: Utah Division of Wildlife Resources

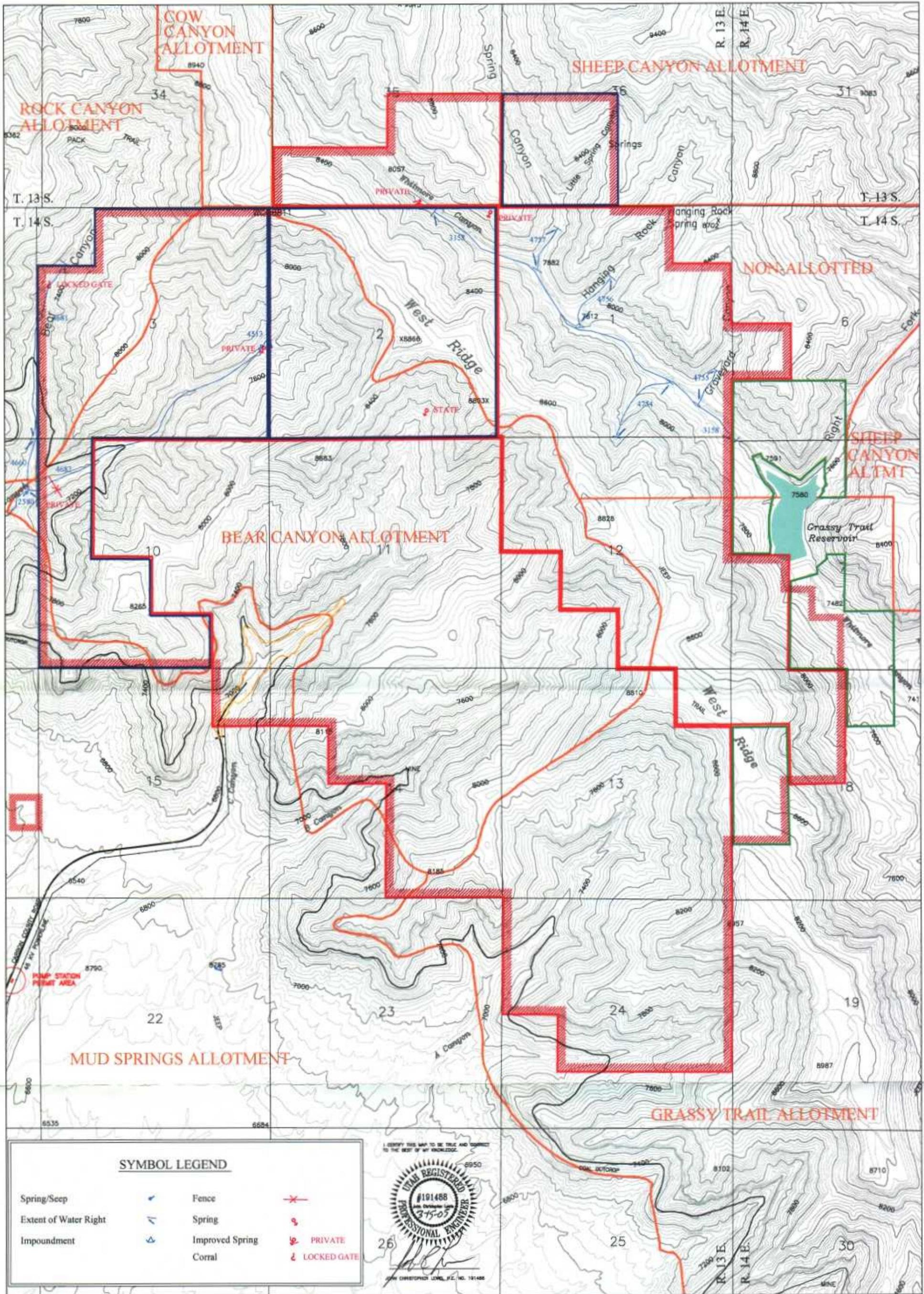
WEST RIDGE MINE
Map 3-4D
Wildlife Map - Antelope Range

- LEGEND:**
- Permit Boundary (PENDING)
 - Federal Lease
 - State Lease
 - Penta Creek Fee
 - Surface Facility Area
 - AY-H

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SYMBOL LEGEND

Spring/Seep		Fence	
Extent of Water Right		Spring	
Impoundment		Improved Spring	
		Corral	
		PRIVATE	
		LOCKED GATE	

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UTAH REGISTERED PROFESSIONAL ENGINEER
 #191488
 Lyle Christopher Lyle
 3-15-05

26

UTAH REGISTERED PROFESSIONAL ENGINEER
 LYLE CHRISTOPHER LYLE, P.E. NO. 191488

WEST RIDGE MINE
Map 4-1
Existing Land Use

LEGEND:

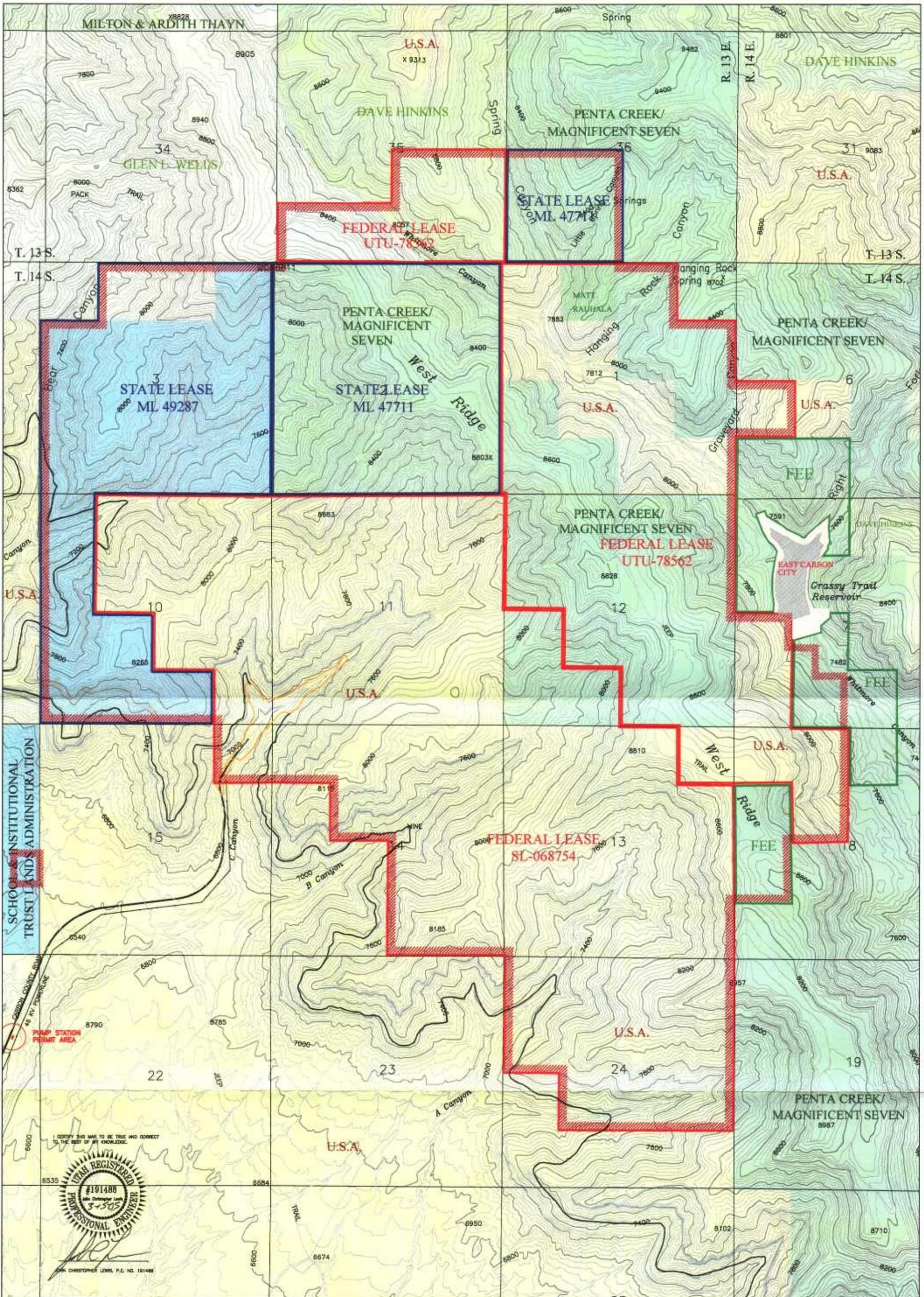
Permit Boundary (PENDING)	
Federal Lease	
State Lease	
Penta Creek Fee	
Surface Facility Area	
Grazing Allotment Boundary	



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WEST RIDGE MINE
Map 5-2
Surface Ownership Map

DATE: 03-15-05 REV: 1 ACAD REF: MAP5-2 SURFOWN

LEGEND:

Permit Boundary (PENDING)		School Trust Land (SITLA)	
Federal Lease		Penta Creek/Magnificent Seven	
State Lease		U.S.A. (BLM)	
Penta Creek Fee		Dave Hinkins	
Surface Facility Area		Glen L. Wells	
Outcrop		Matt Rauhala	
		Milton & Ardith Thayne	
		East Carbon City	

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MAR 23 2005

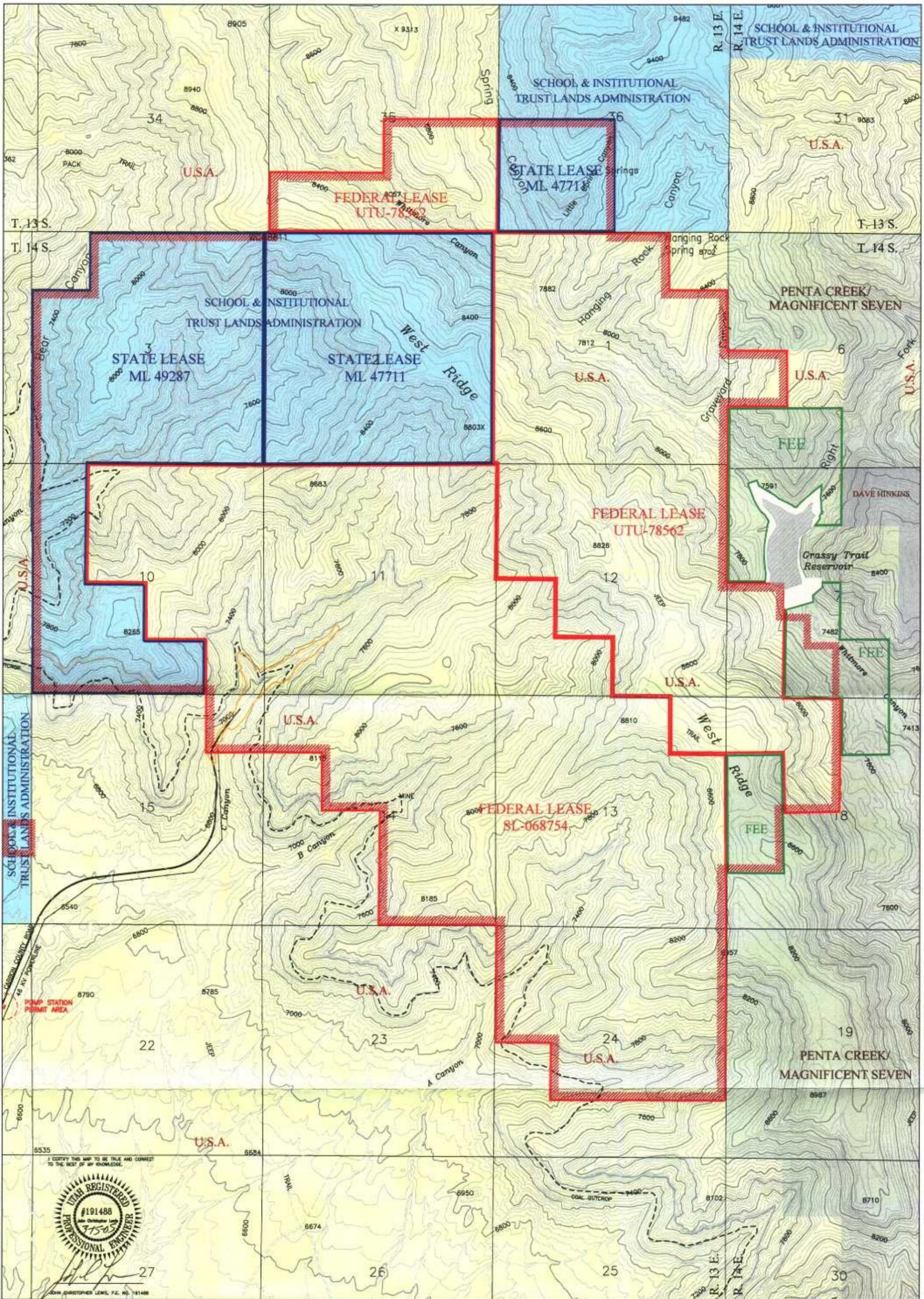
SCALE: 1"=2000'

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 #191488
 John Christopher Lewis
 3-3-505

JOHN CHRISTOPHER LEWIS, P.E. NO. 191488



WEST RIDGE MINE
Map 5-3
Sub-surface Ownership Map

DATE: 03-15-05 REV: 9 ACAD REF: MAPS-3 SUBSURFOWN

LEGEND:

- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area
- Outcrop
- School Trust Lands (SITLA)
- Penta Creek/Magnificent Seven
- U.S.A. (BLM)
- Dave Hinkins
- East Carbon City

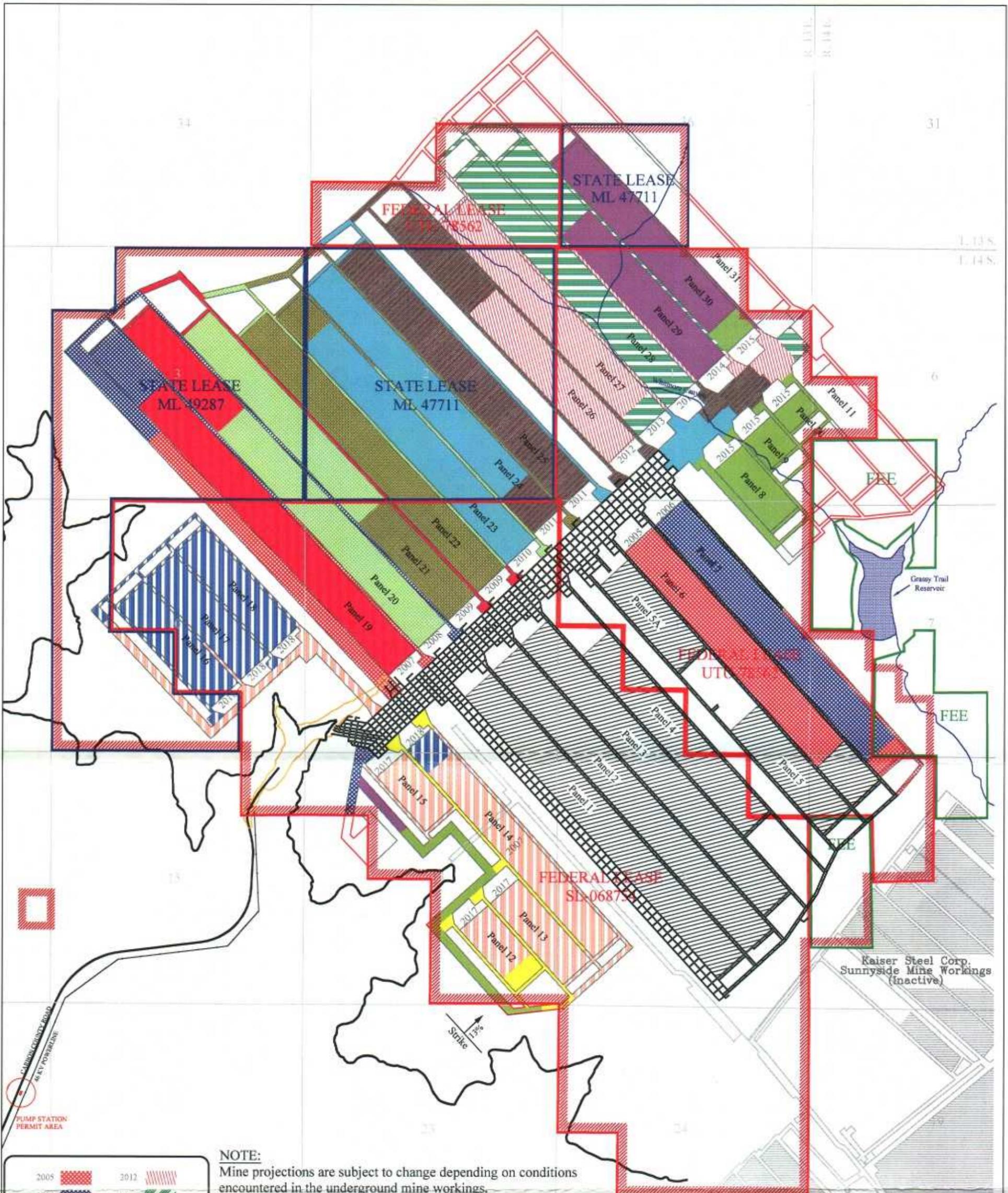


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2005	2012
2006	2013
2007	2014
2008	2015
2009	2016
2010	2017
2011	2017
Mined Area	

NOTE:
 Mine projections are subject to change depending on conditions encountered in the underground mine workings. Actual mine works are shown as of March 01, 2005. Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements. West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary. Longwall mining will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM.

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 USAM REGISTERED PROFESSIONAL ENGINEER
 #191488
 3-15-05
 JOHN CHRISTOPHER LEWIS, P.E. NO. 191488

WEST RIDGE MINE

Map 5-4A

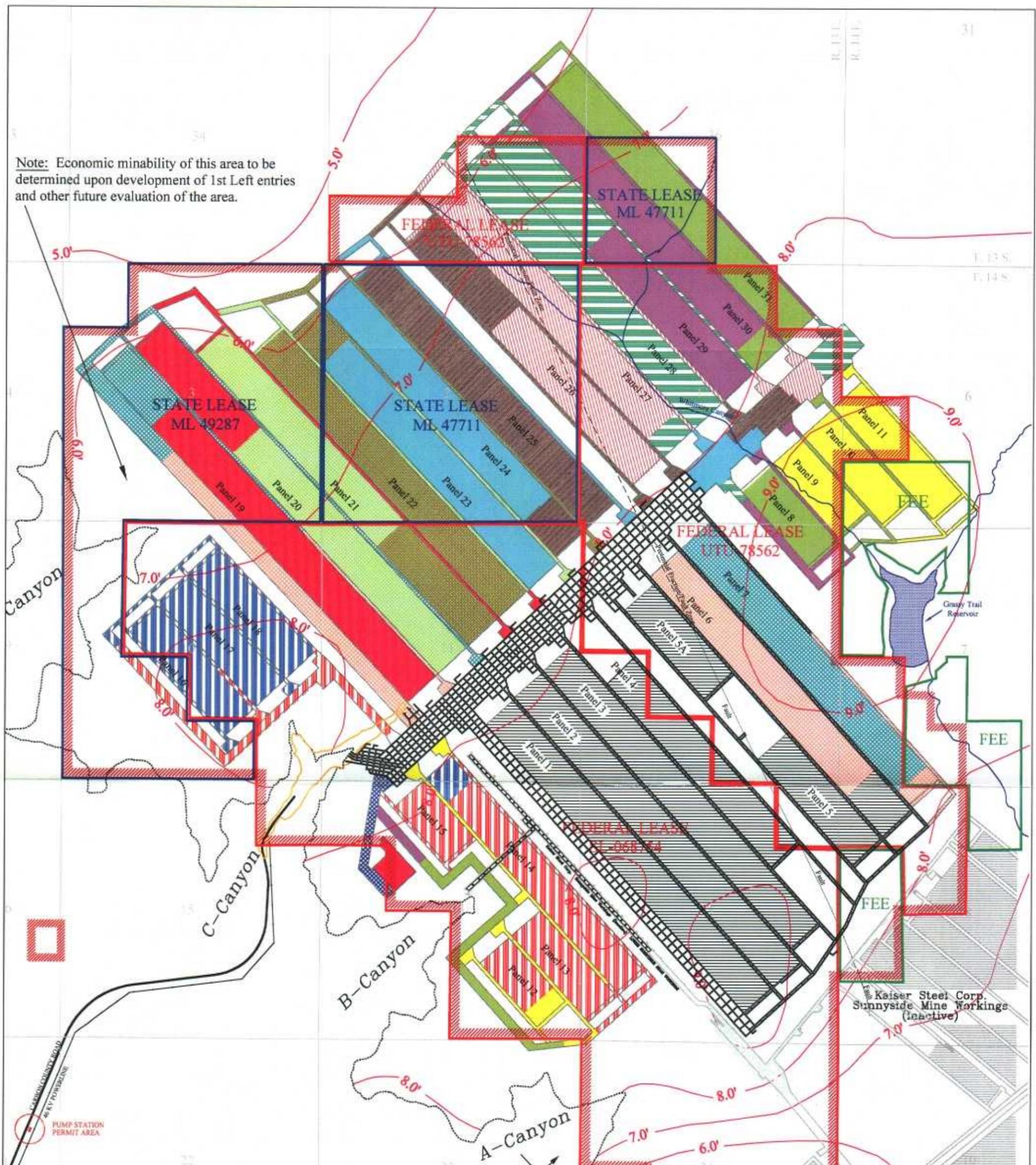
Mining Projections

LEGEND:
 Permit Boundary (PENDING)
 Federal Lease
 State Lease
 Penta Creek Fee
 Surface Facility Area
 Outcrop

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Note: Economic minability of this area to be determined upon development of 1st Left entries and other future evaluation of the area.



NOTE:
 Mine projections and barrier pillar location(s) are subject to change depending on conditions encountered in the underground mine workings.
 Actual mine works are shown as of March 01, 2005.
 Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.
 West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.
 Longwall 17 will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM.

2005	[Pattern]	2012	[Pattern]
2006	[Pattern]	2013	[Pattern]
2007	[Pattern]	2014	[Pattern]
2008	[Pattern]	2015	[Pattern]
2009	[Pattern]	2016	[Pattern]
2010	[Pattern]	2017	[Pattern]
2011	[Pattern]	2018	[Pattern]
		Mined Area	[Pattern]

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 UTAH REGISTERED PROFESSIONAL ENGINEER
 #191488
 My Expiration Date 3-18-05
 Christopher Lewis
 1041 CHRISTOPHER LEWIS, P.E. NO. 191488

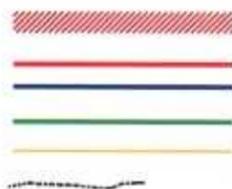
WEST RIDGE MINE

Map 5-4B

Mining Projections (Extended Reserves)

LEGEND:

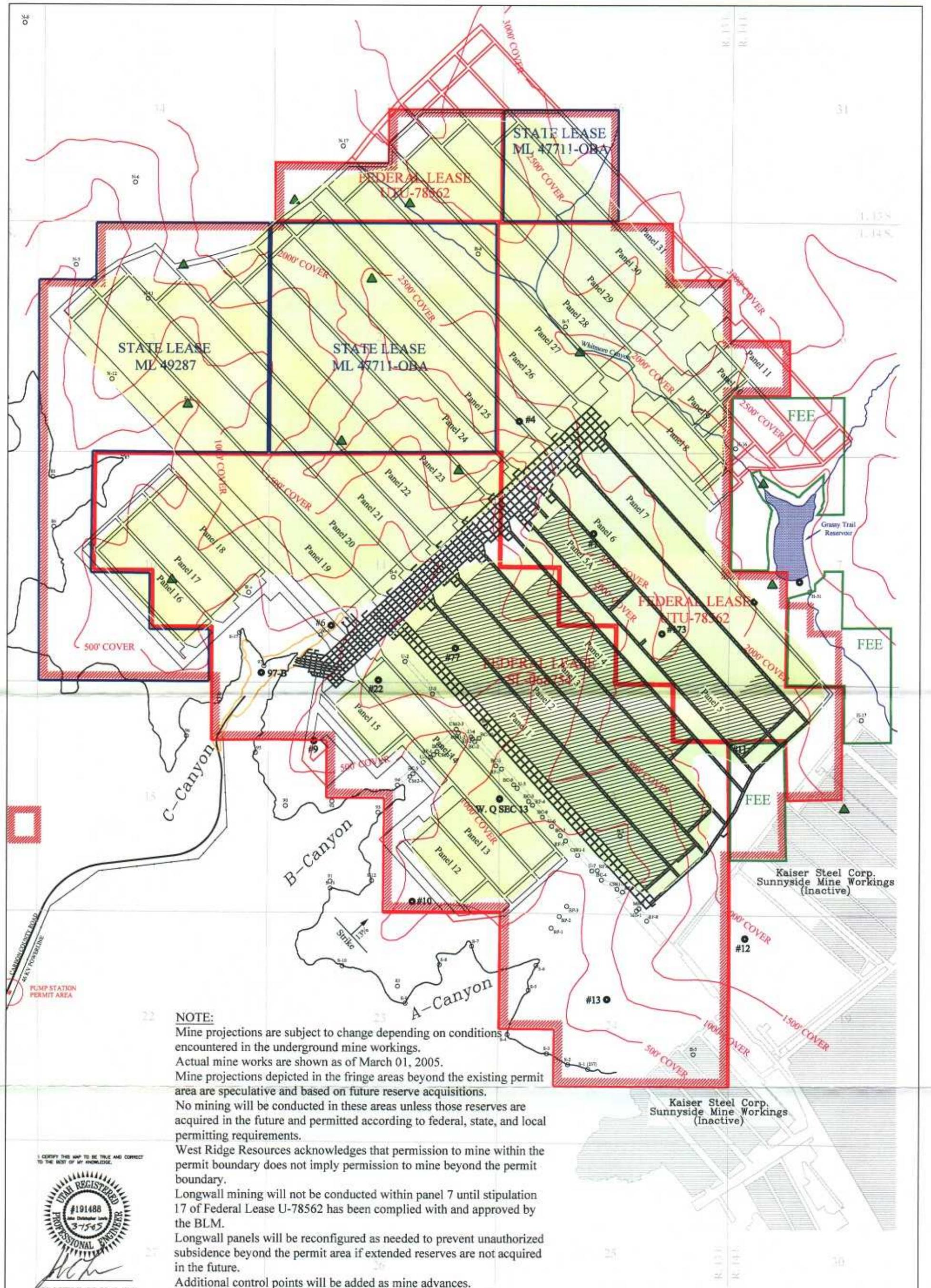
- Permit Boundary (PENDING)
- Federal Lease
- State Lease (ML 49287)
- Penta Creek Fee
- Surface Facility Area
- Outcrop



WEST RIDGE
 RESOURCES, INC.

MAR 23 2005

SCALE: 1"=2000'
 DIV. OF OIL, GAS & MINING



NOTE:
 Mine projections are subject to change depending on conditions encountered in the underground mine workings. Actual mine works are shown as of March 01, 2005. Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements. West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary. Longwall mining will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM. Longwall panels will be reconfigured as needed to prevent unauthorized subsidence beyond the permit area if extended reserves are not acquired in the future. Additional control points will be added as mine advances.

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED PROFESSIONAL ENGINEER
 #191488
 John Christopher Lewis
 3-7505

JOHN CHRISTOPHER LEWIS, P.E. NO. 191488

WEST RIDGE MINE
Map 5-7
Subsidence Map

LEGEND:

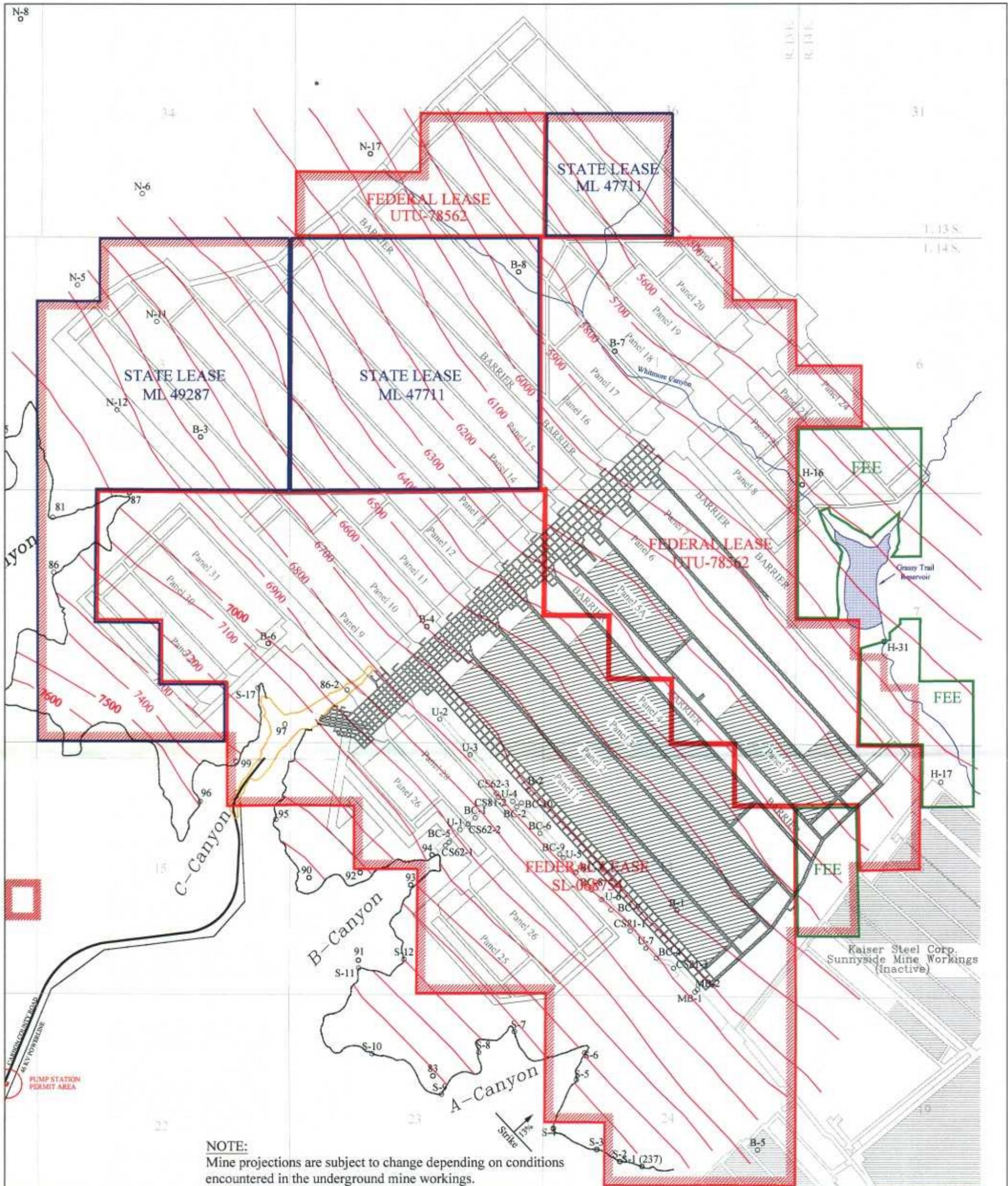
Permit Boundary (PENDING)	
Federal Lease	
State Lease	
Penta Creek Fee	
Surface Facility Area	
Outcrop	
Cover	
Drill Hole/Channel Samples	
Possible Subsidence Area	
Existing Photo Grammetric Control Points	
Future Photo Grammetric Control Points	

WEST RIDGE RESOURCES, INC.

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 SCALE: 1"=2000'

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NOTE:
 Mine projections are subject to change depending on conditions encountered in the underground mine workings. Actual mine works are shown as of March 01, 2005. Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements. West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary. Longwall mining will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM.

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



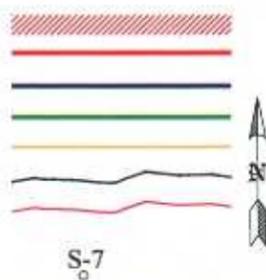
JOHN CHRISTOPHER BIRLS, P.E. No. 191488

WEST RIDGE MINE

Map 6-2

Coal Seam Structure Map

- LEGEND:**
- Permit Boundary (PENDING)
 - Federal Lease
 - State Lease
 - Penta Creek Fee
 - Surface Facility Area
 - Outcrop
 - Structure Contour (Base of Lower Sunnyside Seam)
 - Drill Hole/Channel Samples

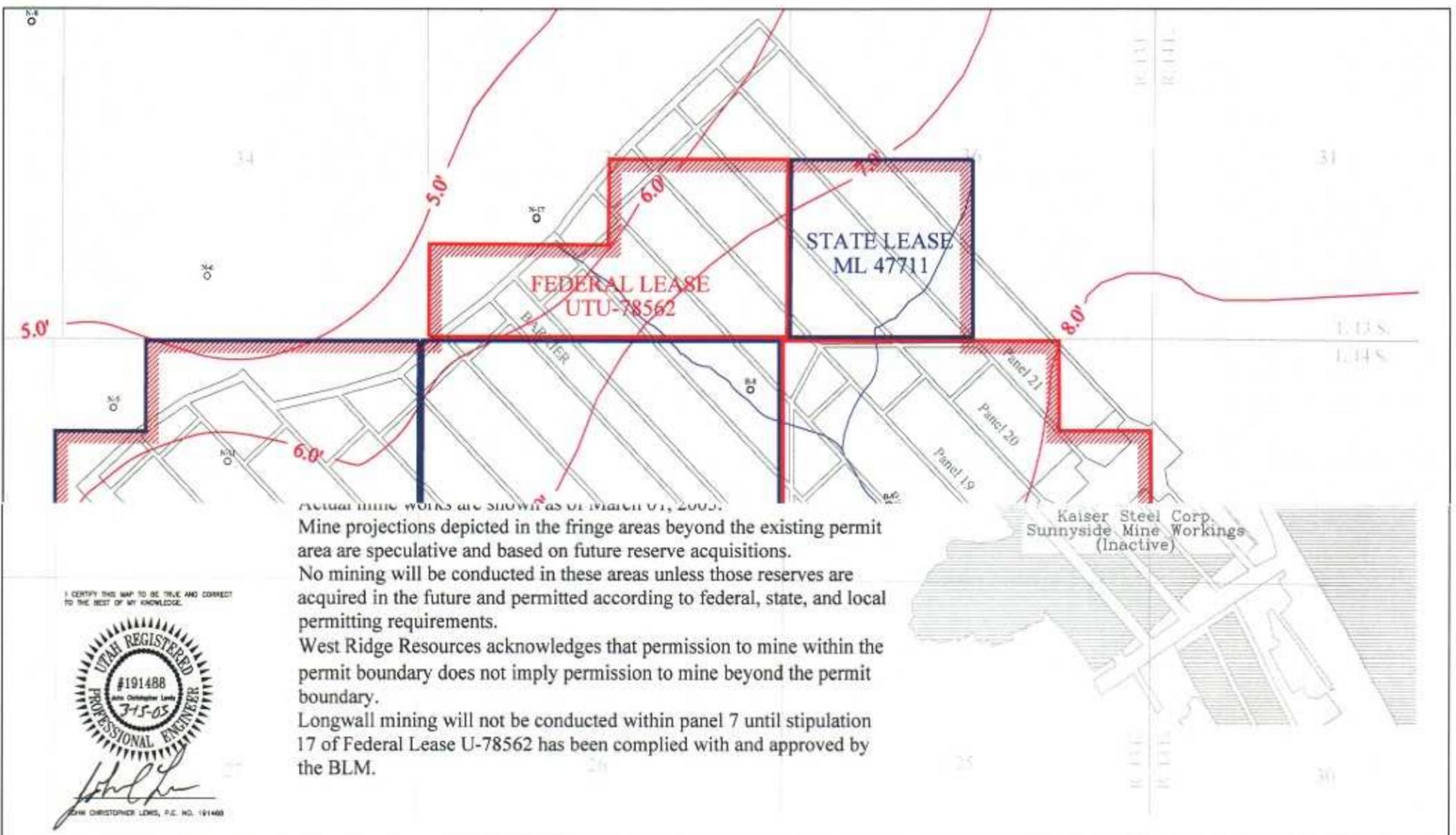


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ACTUAL MINE WORKS ARE SHOWN AS OF MARCH 03, 2005.
 Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions.
 No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.
 West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.
 Longwall mining will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM.



WEST RIDGE MINE
Map 6-3
Lower Sunnyside Coal Seam
Isopach Map

DATE: 03-15-05 REV: 9 ACAD REF: MAP6-3 ISOPACH

LEGEND:

- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area
- Outcrop
- Coal Isopachs
- Drill Hole/Channel Samples

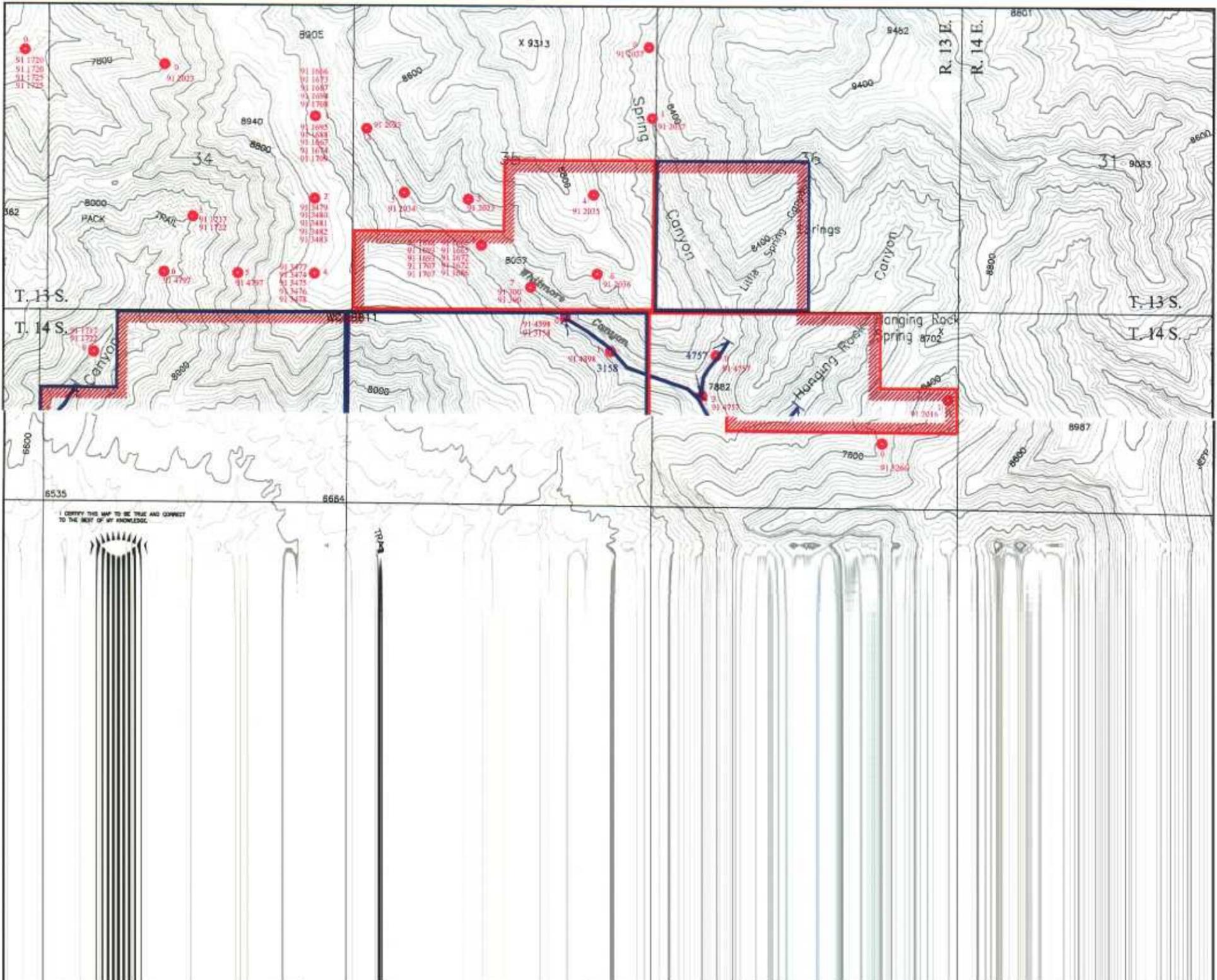
WEST RIDGE RESOURCES, INC.

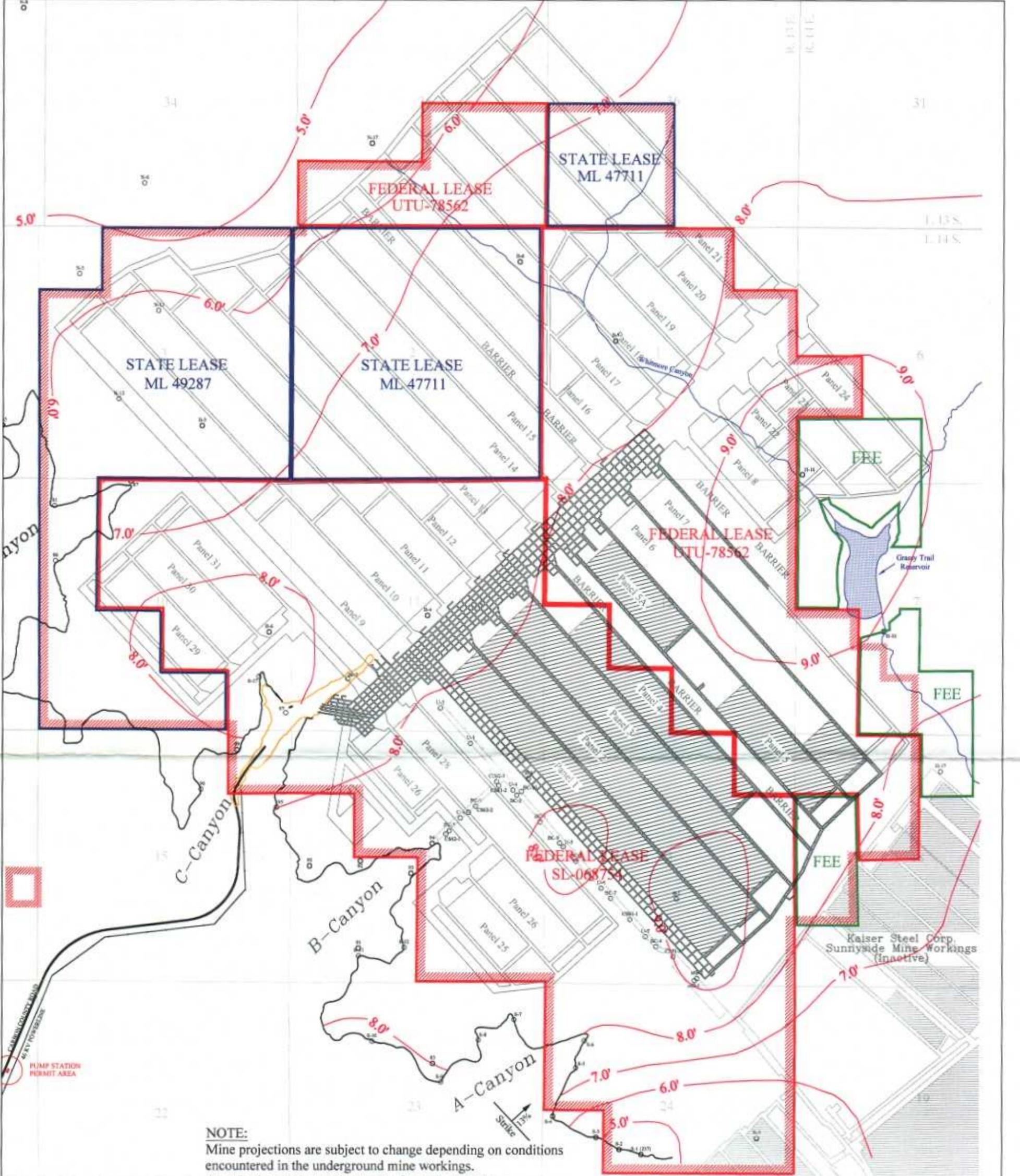
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NOTE:

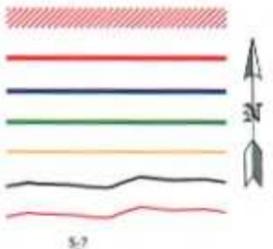
Mine projections are subject to change depending on conditions encountered in the underground mine workings. Actual mine works are shown as of March 01, 2005. Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements. West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary. Longwall mining will not be conducted within panel 7 until stipulation 17 of Federal Lease U-78562 has been complied with and approved by the BLM.

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



WEST RIDGE MINE
Map 6-3
Lower Sunnyside Coal Seam
Isopach Map

- LEGEND:**
- Permit Boundary (PENDING)
 - Federal Lease
 - State Lease
 - Penta Creek Fee
 - Surface Facility Area
 - Outcrop
 - Coal Isopachs
 - Drill Hole/Channel Samples

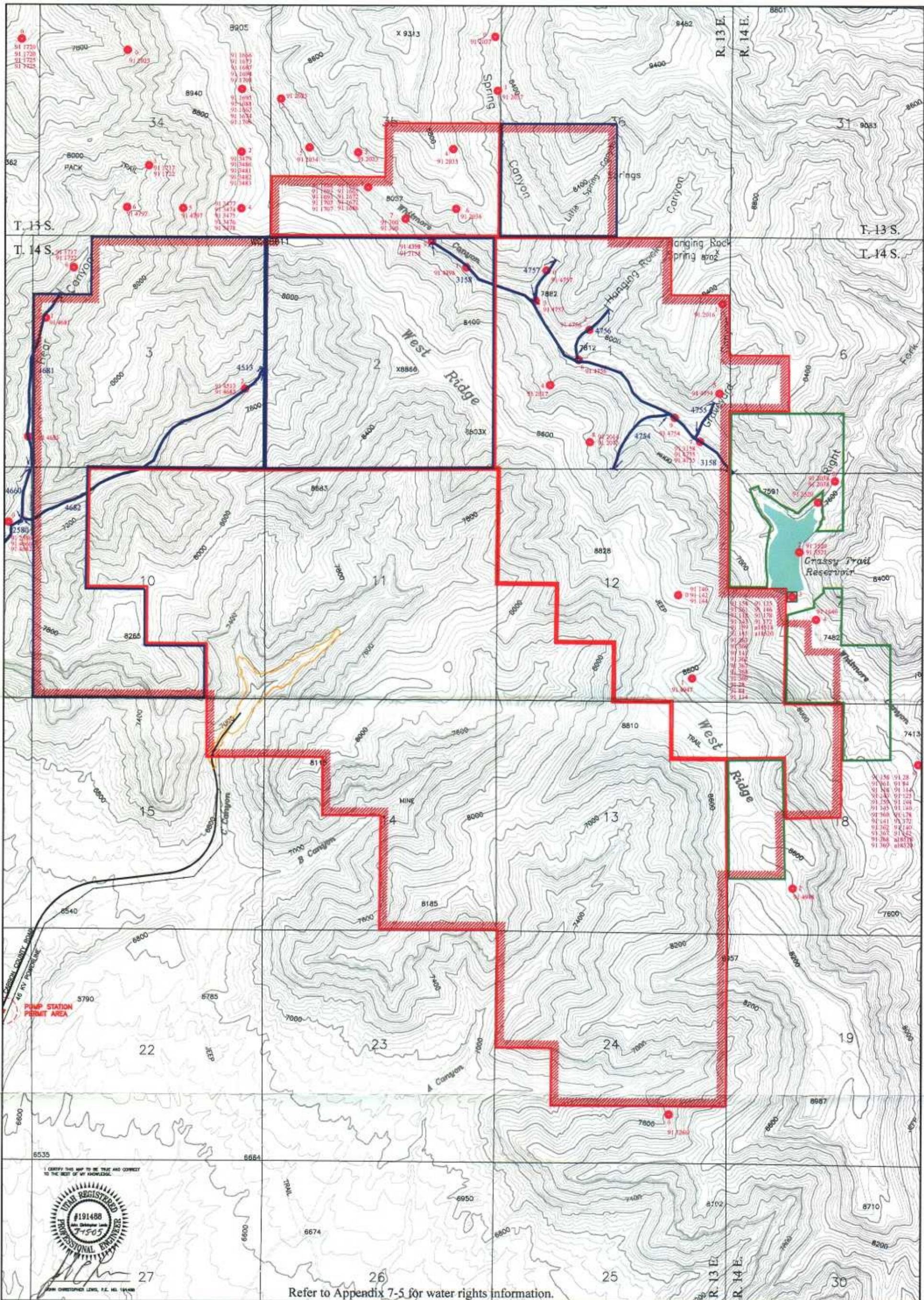


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Refer to Appendix 7-5 for water rights information.

WEST RIDGE MINE

Map 7-3

Water Rights

LEGEND:

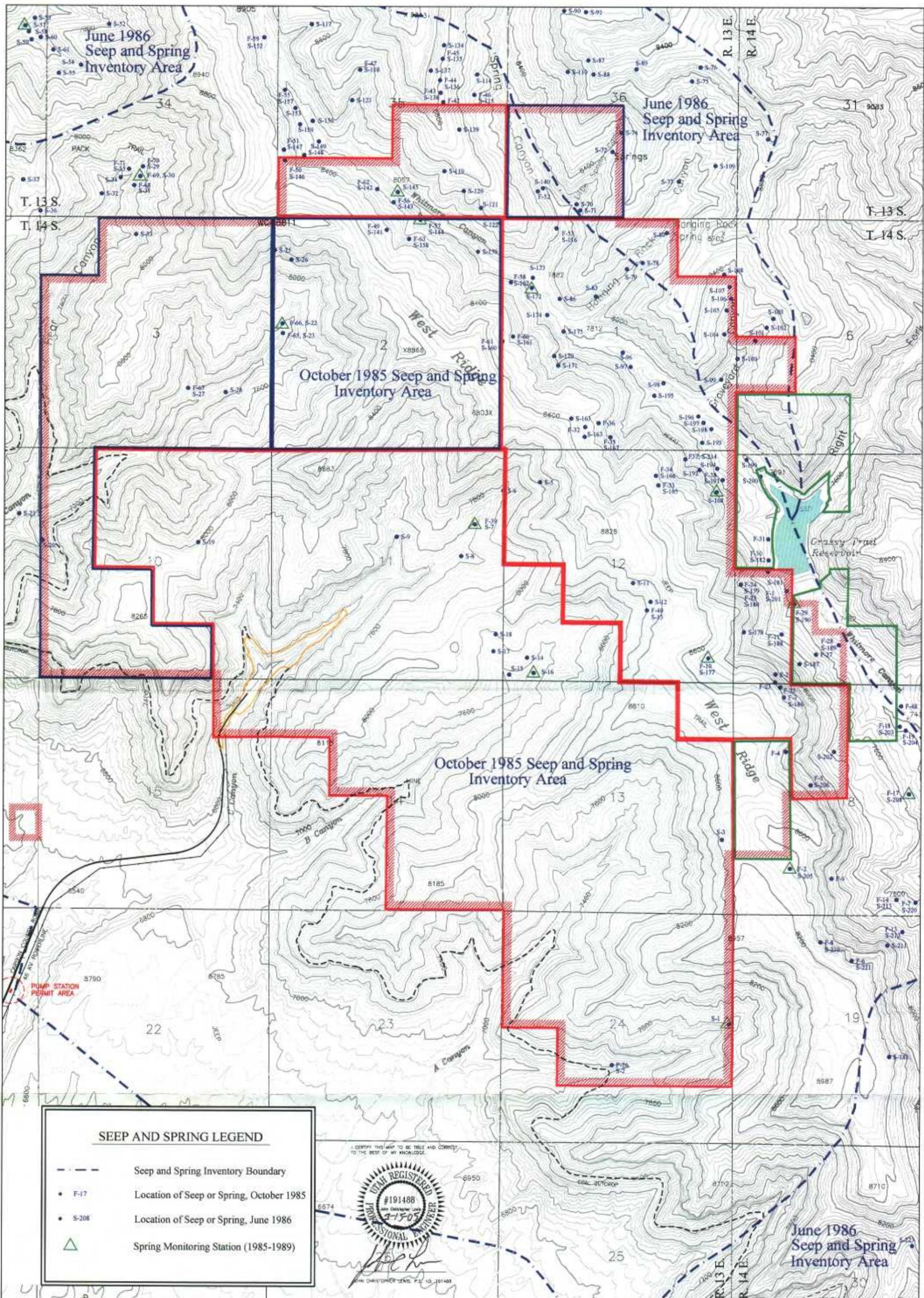
- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area
- Ground Water Right
- Surface Water Right
- Water System Intake
- Water Right (East Carbon City)
- Water Right (East Carbon City)



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SEEP AND SPRING LEGEND

- Seep and Spring Inventory Boundary
- F-17 Location of Seep or Spring, October 1985
- S-208 Location of Seep or Spring, June 1986
- Spring Monitoring Station (1985-1989)



WEST RIDGE MINE
Map 7-5
Seep/Spring Survey Map

LEGEND:

- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area

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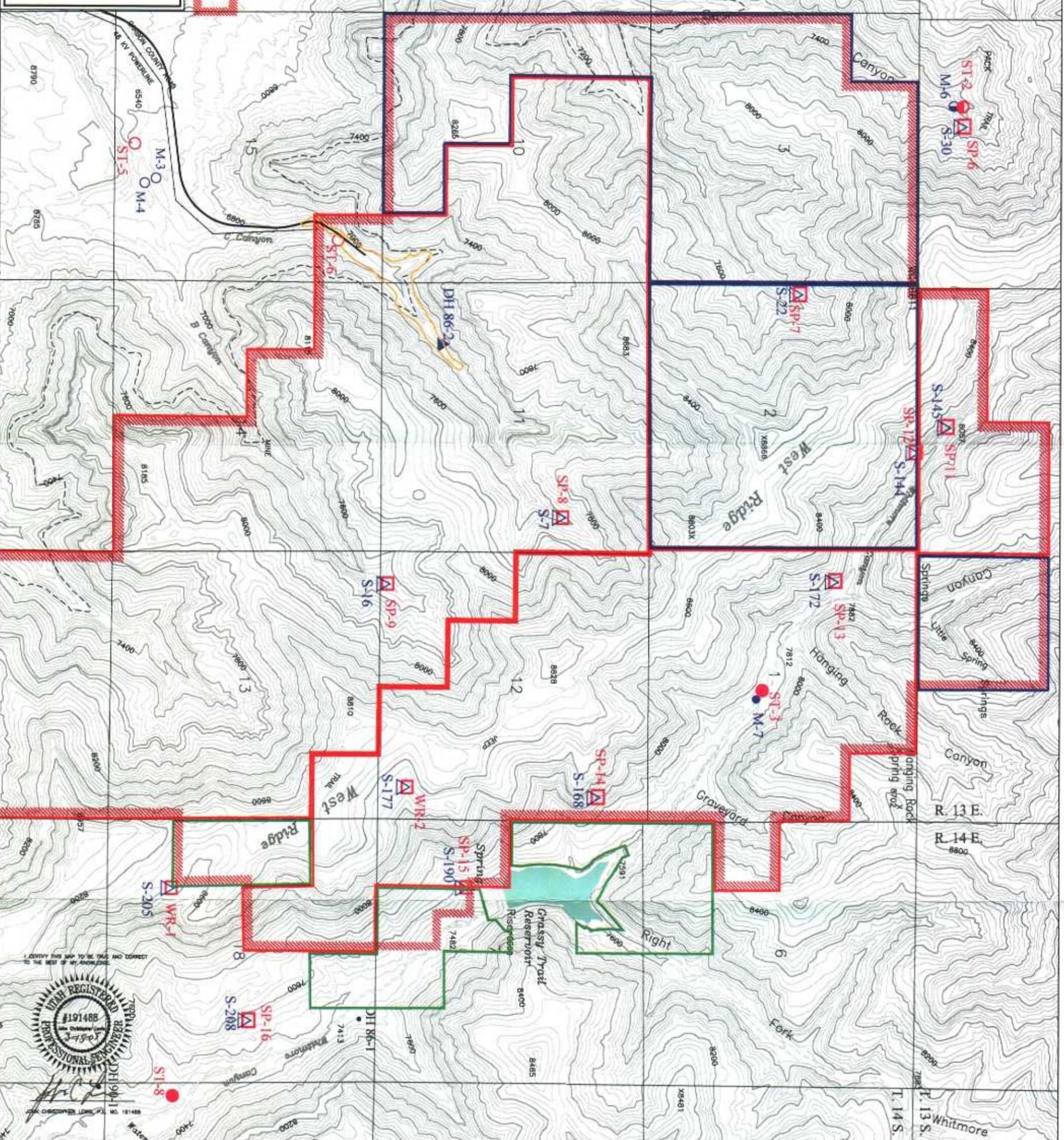
MAR 23 2005

SCALE: 1"=2000'

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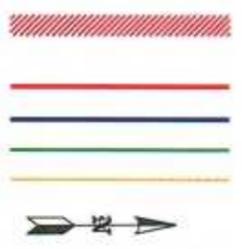
LEGEND

Monitoring Locations	1985/1986	1987 and later
Spring Monitoring Station	△ S-177	□ WR-2
Drill Hole Water Monitoring Location	○ M-5	▲ ST-7
Epithermal Stream Flow Monitoring Station	○ M-6	○ ST-2
Intermediate Stream Flow Monitoring Station	○ M-7	○ ST-3
Perennial Stream Flow Monitoring Station		



WEST RIDGE MINE
Map 7-6
Hydrologic Monitoring Map
(Historical Monitoring Locations)

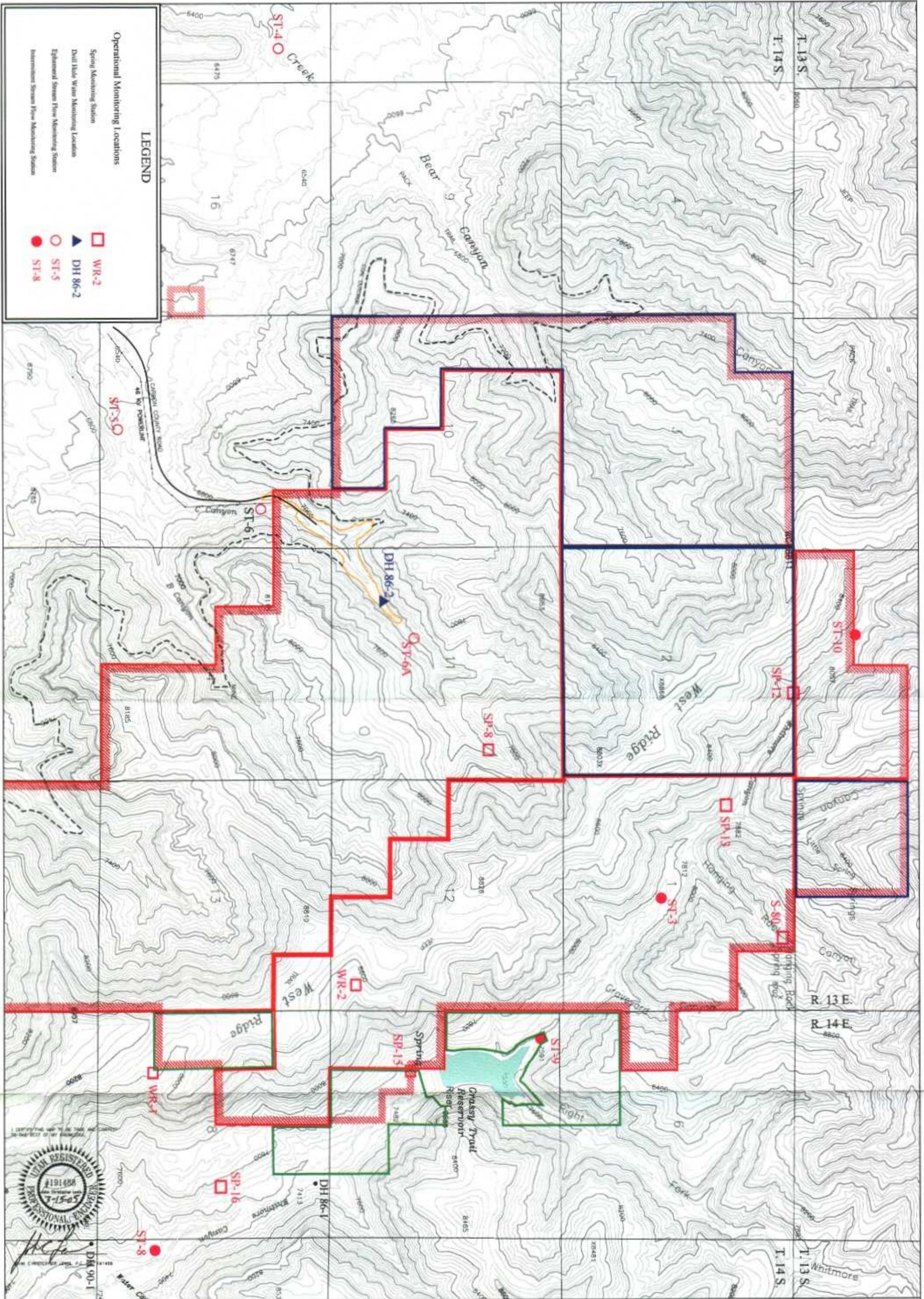
LEGEND:
Permit Boundary (PENDING)
Federal Lease
State Lease
Penta Creek Fee
Surface Facility Area



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LEGEND

Operational Monitoring Locations

- Spring Monitoring Station
- Ditch Side Water Monitoring Location
- Epifaunal Stream Flow Monitoring Station
- Intermittent Stream Flow Monitoring Station

- WR-2
- DH 86-2
- ST-5
- ST-8
- ST-8

WEST RIDGE MINE
Map 7-7
Operational Monitoring Locations

DATE: 03-15-05 REV: 7 ACAD REF: MAP7-7 MONITOR-OP

LEGEND:

- Permit Boundary (PENDING)
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area

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