

April 18, 2003

Chuck Semborski, Environmental Supervisor
Energy West Mining Company
P. O. Box 310
Huntington, Utah 84528

Re: Conditional Approval of Application for a Permit Change - R645-301-100: General Contents, PacifiCorp, Deer Creek Mine, C/015/018-AM02B, Outgoing File

Dear Mr. Semborski:

The above-referenced amendment is conditionally approved upon receipt of (7) clean copies for incorporation. The Division received the letter from the BLM, dated April 14, 2003, consenting to this permit area reduction (see attached.)

The clean copies should include the same Permit Boundary contained in the legal description and as identified on Plate 1-1, Coal Ownership Map of the Deer Creek Mine Permit Area. The commitment to revise the permit boundary should include, but is not limited to, the following Plates: Plate 1-1, Plate 1-2, Plate 1-3, Plate 2-14, Plate 2-15, Plate 2-16, Plate 2-17, Plate 2-18-A, Plate 2-18-B, Plate 2-19, Plate 3-6, Plate 3-7, Plate 4-5, and Plate 5-1. Once we receive these copies, we will send a stamped incorporated copy to you for insertion into your copy of the Mining and Reclamation Plan. A copy of our Technical Analysis is enclosed for your information.

If you have any questions, please call me at (801) 538-5268 or Karl R. Houskeeper at (435) 613-5330.

Sincerely,

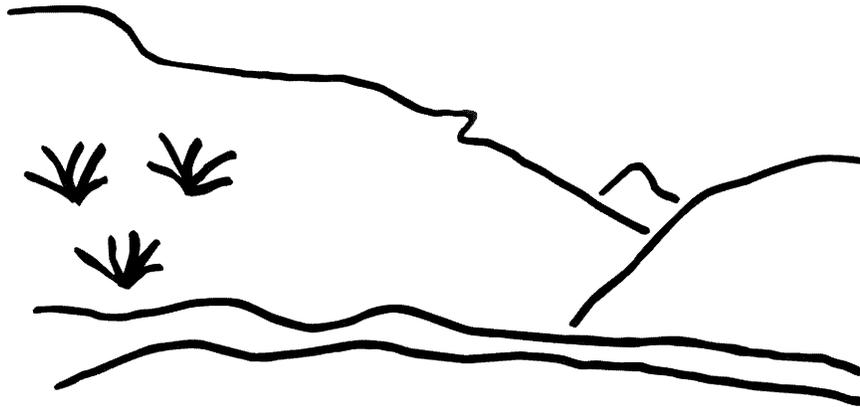
Pamela Grubaugh-Littig
Permit Supervisor

Enclosure

cc: Price Field Office

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Deer Creek Mine
Volume 1
C/015/018-AM02B
Technical Analysis
April 18, 2003

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TECHNICAL ANALYSIS

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

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

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

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

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

INTRODUCTION

INTRODUCTION

The Division received an application (AM02B) for a permit change on March 4, 2002 from PacifiCorp, by and through its wholly owned subsidiary, Energy West Mining Company. This submittal indicates changes in the legal and financial section identified in the Deer Creek MRP as Volume 1, R645-301-100: General Contents, specifically, revisions made to update the Right of Entry information to include a 65.7 lease modification of Federal Lease U-06039.

Energy West submitted an Incidental Boundary Change (IBC) application to the Division on December 31, 2001. Several deficiencies were noted in this application (IB01K-1), one of which required the permittee to update the Right of Entry information. This application addresses the deficiency relative to the Right of Entry from application (IB01K-1).

In addition, this application also deletes six parcels of ground from the permit area that have been relinquished and/or terminated. This reduction in the permit area totals 1,885.52 acres and is indicated on the maps as well as in the text. The areas being removed from the permit area have been evaluated for subsidence, ownership & control, and hydrology issues.

Leases ML-22509 and U-7653 were undermined from the Deer Creek Mine during 1996 through January 1999. A large section of the surface in U-7653 has subsided a maximum of 7 feet. The 320-acre fee area owned by the LDS Church on the east side of the permit area was undermined from both the Deer Creek and Cottonwood/Wilberg Mines and the surface has stabilized at 13 feet of subsidence in the center. The areas being relinquished in leases U-24319, U-47979, and SL-064607-064621 were not undermined.

This technical analysis focuses on the Right of Entry Information, Subsidence, Hydrology and Ownership & Control.

GENERAL CONTENTS

GENERAL CONTENTS

VIOLATION INFORMATION

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

Analysis:

As part of this amendment the operator has provided updated information within Appendix B of the approved MRP. Appendix B contains an NOV list. The current list shows information for the last three years of all the applicable subsidiaries associated with PacifiCorp and/or Energy West Mining.

Findings:

The information contained in Appendix B complies with the regulations.

RIGHT OF ENTRY

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

Analysis:

A new Chapter 1 in Volume 1 of the approved MRP has been submitted as part of this amendment. Chapter 1 has been updated and includes the legal description for the proposed IBC, Mill Fork Lease U-06039 containing 65.7 acres. In addition, the legal description has been modified to exclude several parcels of ground from the permit area. These parcels include: LDS FEE, Relinquished 11/18/98; SL – 064607, Relinquished 12/14/95; U- 47979, Relinquished 12/14/95; U – 024319, Relinquished 12/14/95; ML – 22509, Relinquished 12/06/01; and U – 7653, Terminated 3/18/2002.

Findings:

The legal description for the permit area contained in Appendix E was compared to Plate 1-1, Coal Ownership Map of the Deer Creek Mine Permit Area. The description contained in Appendix E matches the Permit Boundary identified on Plate 1-1, Coal Ownership Map of the Deer Creek Mine Permit Area. A commitment from the operator in the cover letter of this amendment stated that this new permit boundary would be placed on all maps that include a permit boundary on them. This commitment should include, but is not limited to, the following Plates: Plate 1-1, Plate 1-2, Plate 1-3, Plate 2-14, Plate 2-15, Plate 2-16, Plate 2-17, Plate 2-18-A, Plate 2-18-B, Plate 2-19, Plate 3-6, Plate 3-7, Plate 4-5, and Plate 5-1.

No deficiencies were found in this section. However approval is conditioned upon the submittal of the above referenced maps and all maps that contain permit boundaries. In addition, the approval is conditional since it is tied to the approval of the IBC (IB01K-1).

ENVIRONMENTAL RESOURCE INFORMATION

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

HYDROLOGIC RESOURCE INFORMATION

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

Analysis:

Baseline Information

Maps in the MRP show springs 89-62, 89-63, 89-64, 89-65, and 89-70 plus two springs without names in leases ML-22509 and U-7653.

Of the springs in the relinquished leases, only 89-65 has been monitored: at high-flow in July and low flow in October since 1989. The Division has compared the flow data against the Palmer Hydrologic Drought Index (PHDI) for Regions 4 and 7 and the precipitation data from PacifiCorp's weather station on East Mountain. Variations in high-flow at spring 89-65 correspond roughly with variations in the PHDI and precipitation data, but low-flows show poor correspondence. A period of minimal low-flows from 1992 through 1995 occurred during a time when both the PHDI and precipitation were generally high; however, it is notable that when both the PHDI and precipitation dropped in 1994 in the middle of this wet cycle, high-flow and low-flow both fell to zero – no measurable flow. The areas near this spring were undermined by the Deer Creek Mine operations from 1996 through 1999, so the 1992 to 1995 period of reduced low-flows does not appear related to mining activity. PacifiCorp also plots the flow of springs and precipitation on East Mountain and has found a strong correlation of spring discharge volumes and the amount of precipitation; these charts are included in the Annual Reports.

Spring 89-64 is the only spring in the relinquished areas that has been subsided. It is located in U-7653 where the surface subsided 2 to 4 feet, on the west edge of the subsided area. Because this spring was not monitored, it cannot be determined whether or not subsidence had any impact on it.

The following explanation of the process that was used to select springs for monitoring was provided by Chuck Semborski of Energy West in an e-mail dated Friday, April 26, 2002:

“Between the time PacifiCorp began monitoring springs on East Mountain and 1986 the number of springs measured increased from less than fifty (50) to nearly eighty (80). PacifiCorp believed that more benefit could be realized by concentrating its monitoring to selective springs in the areas that will be undermined within the next five years. (See Map HM-5 in pocket. [of MRP]) A meeting was held on March 25, 1987 with the U. S. Forest Service and the Utah State Division of Oil, Gas and Mining to determine the most

ENVIRONMENTAL RESOURCE INFORMATION

effective plan for PacifiCorp's monitoring. A subsequent meeting was held on April 15, 1987 with the State Division of Oil, Gas and Mining to finalize the monitoring plan revisions. In addition to major revisions made in 1987, each year a meeting is held with State and Federal agencies to adjust the monitoring schedule based on field investigations.”

“During the meetings it was resolved that the following springs will be monitored. Eight additional springs (denoted with a plus [+] symbol below) were added in 1989 after the annual field verification process jointly conducted by DOGM and PacifiCorp.”

*Burnt Tree Springs	79-40
*Elk Spring	80-41
*Sheba Springs	80-43
Ted's Tub	*80-44
79-2	*80-46
*79-10	80-47
79-15	+80-48
*79-23	80-50
79-24	82-51
*79-26	*82-52
+79-28	*84-56
*79-29	+89-60 (Alpine Spring)
79-32	+89-61
79-34	+89-65
*79-35	+89-66
79-38	+89-67
	+89-68

This list is basically the same as the list now found in the monitoring plan of the current MRP.

Overall, data collected by PacifiCorp from 1989-2001 indicate a direct relationship between ground-water discharge and precipitation. Hydrologic monitoring on East Mountain has not revealed any change in the quantity or quality of groundwater that can be attributed to mining on East Mountain. Considering the data compiled by PacifiCorp for the area, and as best as can be determined from the limited data in the relinquished areas and considering the absence of complaints from water users, it appears that mining has caused little or no impact to ground- and surface-water resources and the hydrologic balance in and adjacent to the areas being removed from the permit.

Monitoring of spring 89-65 will continue under the operational monitoring plan in the MRP. The relinquished leases will be in the adjacent area and will still be subject to the Coal Mining Rules to the extent the rules apply to adjacent areas.

ENVIRONMENTAL RESOURCE INFORMATION

Findings:

Hydrologic resource information is sufficient to meet the requirements of this section of the Coal Mining Rules.

OPERATION PLAN

OPERATION PLAN

SUBSIDENCE CONTROL PLAN

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

Analysis:

Subsidence Control Plan

In conjunction with the request to remove six parcels of ground from the current permit area, the Annual Subsidence Monitoring Report East/Trail Mountain Properties 2001 was reviewed. Each of the areas being removed from the permit area have been evaluated and a description of these analysis is as follows:

LDS Fee Area (Subsidence Study Area 2), Deer Creek 5th, 6th, 7th, & 8th Longwall Panels, Wilberg 3rd through 13th Right Panels.

Page 14 of the Annual Subsidence Monitoring Report East/Trail Mountain Properties 2001 indicates that subsidence has stabilized at 13 feet in one area above the center of the multiple seam mining (Figure 10). The subsidence profiles (Figures 11 and 12) indicate that the subsidence has been stable for the past 8 years or more. No springs have been identified over the subsidence area but two springs $\frac{1}{4}$ to $\frac{1}{3}$ mile west, show no effects from mining (see Hydrologic Monitoring Report 2001).

SL-064607 & 064621 (Subsidence Study Area 3), Deer Creek 1st North Area.

Page 20 of the Annual Subsidence Monitoring Report East/Trail Mountain Properties 2001 indicates that no significant change has occurred in the past 7 years. The East Mountain/Trail Mountain 2001 Subsidence map does not highlight this area. Subsidence in area 3 has been less than 2 feet. The portion of the lease area being removed from the permit area has had no mining, nor subsidence from mining. The strata surrounding and above this area are generally dry. Mining has not affected the groundwater. The mined areas and subsidence from mining, discussed above, lie to the west of the area being removed from the permit area.

U-024319 & U-47979 (Subsidence Study Area 21), Deer Creek 2nd East through 7th East Longwall Panels.

Page 102 of the Annual Subsidence Monitoring Report East/Trail Mountain Properties 2001 indicates that mining began in November of 1993 and finished in January 1996. A maximum of 6 to 8 feet of subsidence has occurred in this area. Indications are that subsidence has stabilized from recent transects. Hydrologic monitoring has not detected

any change to the spring flows in this area. The area being removed from the permit area has had no mining, nor subsidence from mining. The mined areas and subsidence from mining, discussed above, lie to the west of the lease areas being removed from the permit area.

U-7653 & ML-22509 (Subsidence Study Area 22), Deer Creek 2nd through 8th West Panels off 3rd North.

Page 22 of the Annual Subsidence Monitoring Report East/Trail Mountain Properties 2001 indicates that mining began in February 1996 and ended in April 1999. The maximum subsidence appears to have stabilized slightly over 7 feet maximum. Mining and subsidence from mining does not appear to have had an effect on the ground water. Monitoring of spring 89-65 will continue under the operational monitoring plan in the MRP until bond release.

Findings:

Subsidence from mining has not affected any structures or buildings. Ground and/or surface water have not indicated any change in flow or quality. The areas where subsidence has occurred are remote. Subsidence has stabilized in these areas and no further subsidence is expected. The time frames in which subsidence last occurred have been long enough to assure that the effects resultant from subsidence is finished. The information submitted and reviewed meets the requirements of this section of the Coal Mining Rules.

RECLAMATION PLAN

HYDROLOGIC INFORMATION

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

Analysis:

General

Leases ML-22509 and U-7653 were undermined by the Deer Creek Mine from 1996 through January, and a large section of the surface in U-7653 has subsided up to 6 feet. The 320-acre fee area owned by the LDS Church on the east side was undermined by both the Deer Creek and Cottonwood/Wilberg Mines and has subsided up to 14 feet in the center. The parts of U-24319, U-47979, and SL-064607-064621 that have been relinquished were not undermined by either mine.

Ground-Water Monitoring

Maps in the MRP show springs 89-62, 89-63, 89-64, 89-65, and 89-70 plus two springs without names in leases ML-22509 and U-7653. Only spring 89-64 has been subsided. It is located in lease U-7653 where the surface dropped 2 to 4 feet, on the west edge of the subsided area. Because this spring was not monitored, it cannot be determined whether or not subsidence had any impact on it.

Overall, data collected by PacifiCorp from 1989-2001 indicate a direct relationship between ground-water discharge and precipitation. Hydrologic monitoring on East Mountain has not revealed any change in the quantity or quality of groundwater that can be attributed to mining on East Mountain. Considering the data compiled by PacifiCorp for the area, and as best as can be determined from the limited data in the relinquished areas and considering the absence of complaints from water users, it appears that mining has caused little or no impact to ground- and surface-water resources and the hydrologic balance in and adjacent to the areas being removed from the permit.

Monitoring of spring 89-65 will continue under the operational monitoring plan in the MRP. This monitoring will continue through bond release unless the plan is modified with the Division's approval. The relinquished leases will be in the adjacent area and will still be subject to the Coal Mining Rules to the extent the rules apply to adjacent areas.

Findings:

Hydrologic reclamation information is adequate to meet the requirements of the Coal Mining Rules.

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
www.ut.blm.gov

IN REPLY REFER TO:
3400
UTU-73336

APR 14 2003

Utah Coal Regulatory Program
Mary Ann Wright
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Incoming
C/015/018

RE: Permit Area Reduction, PacifiCorp, Deer Creek Mine, C/015/018-AM02B

Dear Ms. Wright:

The Bureau of Land Management (BLM) was unaware that there was a separate permit for the Cottonwood mine and the Deer Creek mine. PacifiCorp has sent us a map (Map 1) showing that the Cottonwood mine permit covers the areas that were in question in our previous response. We request that you disregard our previous response. BLM approves the modification of the Deer Creek mine permit area as requested by PacifiCorp as shown on Map 2.

If you have any comments or questions, please feel free to contact Mr. Stan Perkes, 801-539-4036.

Sincerely,

James F. Kohler
James F. Kohler

Chief, Solid Minerals Branch

Encl.

Map 1
Map 2

Cc: PFO

RECEIVED

APR 16 2003

DIV OF OIL GAS & MINING