0078

ENERGY WEST Mining Co.
PO Box 310
Huntington, Utah 84528

RECEIVED
DEC 4 2002
DIV. OF OIL, GAS & MINING

December 4, 2002

Hand Delivered

Utah Coal Program
Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Incoming
C/015/018 PM01I-2
Copy Jim
Daron

**RE: Response to the Deficiencies to the Mill Fork Lease Application (Round 2), PacifiCorp, Deer Creek Mine, C/015/018-PM01I, Emery County, Utah**

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits responses to the deficiencies of the Deer Creek Mine Mill Fork Lease Application (Round 2). This application was originally submitted (Mill Fork Lease Volume 12) in October, 2001. On December 21, 2001, the Division determined the application to be administratively complete and commenced their technical review of the supplied information.

For four consecutive weeks in January, 2002, PacifiCorp published the required public notice to increase the size of the Deer Creek Mine permit area. Only one comment was received.On February 7, 2002, PacifiCorp received the technical review for the Mill Fork Lease mining application and respond to the deficiencies by March 15, 2002. On March 7, 2002, PacifiCorp received USFS comments concerning the mining lease application. Their comments were dated February 25, 2002. PacifiCorp requested a 30 day extension to adequately respond to both the concerns of the Division, as well as, the Forest Service.

The latest round of deficiencies of the Technical Review (Round 2) was received October 17, 2002. The attached document attempts to answer those deficiencies. The Division's findings will be first listed by regulation and explanation. PacifiCorp will follow by a response in *italics*.

Accompanied with this letter are seven (7) redline/strikeout copies of the Mill Fork Lease Application for your Round Three Technical Review process. Also enclosed are the proper C1/C2 Forms. When approved, seven (7) clean copies of the Mill Fork Lease Volume 12 will be submitted to the Division.

Huntington Office:
(801) 687-9821
Fax (801) 687-2695
Purchasing Fax (801) 687-9092

Deer Creek Mine:
(801) 381-2317
Fax (801) 381-2285

Cottonwood Mine:
(801) 748-2319
Fax (801) 748-2380

If you have any questions or concerns regarding this document, please contact myself at (435) 687-4720 or Dennis Oakley at (435) 687-4825.

Sincerely,

Charles A. Semborski
Permitting/Geology Supervisor

cc: Carl Pollastro, EWMC w/o enclosures
Scott Child, IMC w/o enclosures

The following responses to deficiencies are formatted as found in the technical analysis document. They are broken down into logical section headings similar to the R645 regulations. In each section, the regulation number along with the associated deficiency is follow by the permittee's italicized response.

## GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

**R645-301-112.900,** After this permit modification is approved but prior to reissuing the permit, the Permittee must update, correct or indicate that no change has occurred in the information previously submitted under R645-301-112.100 through R645-301-112.800.

*The permittee commits to updating all ownership and control prior to permit issuance.*

## ENVIRONMENTAL RESOURCE INFORMATION

VEGETATION RESOURCE INFORMATION

**R645-301-121,** The information provided in the PAP about the vegetation must correlate to the Vegetation Map.

*The text in the Biology Section R645-301-300 has been amended to correlate to the vegetation map.*

FISH AND WILDLIFE RESOURCE INFORMATION

**R645-301-131,** All technical data must be accompanied by the dates of the data collection. Provide the dates of data collection and analysis for the bat studies.

*The permittee has contacted Dr. Duke Rogers and Mr. Rick Sherwin to correct the cover sheets to include the dates of the two bat studies; 1) Assessment of Spotted Bat (Euderma maculatum) and Townsend's Big-eared Bat (Corynorhinus townsendii) in the Proposed Southern Lease Area (LBA 11). Manti La Sal National Forest, Emery County, Utah. and 2) Assessment of Spotted Bat (Euderma maculatum) and Townsend's Big-eared Bat (Corynorhinus townsendii) in the Proposed Cottonwood Canyon Lease Area, Manti La Sal National Forest, Emery County, Utah. Mr. Sherwin corrected the date issue by e-mailing new cover sheets to Energy West. The new cover sheets have been placed in Appendix A.*

**R645-301-322,** the PAP must discuss the potential for the presence or absence of the Mexican spotted owl.

*Energy West participated in a conference call with Rod Player (UFSF), Diana Whittington, (USFWS), Laura Romin (USFWS), Leroy Mead (DWR), and Susan White (DOGM) to discuss Mexican Spotted Owl issues. The subject revolved around the 2000 Willey-Spotskey Mexican Spotted Owl Habitat model developed by MSO expert Dr. Dave Willey from Montana State University. Ms. Whittington ran the model using potential MSO habitat in terms of vetetation, slope, elevation, and curvature. The results showed very limited potential habitat within the Mill Fork Lease. Potential habitat was identified at the tip of the southwest corner of the lease where there are proposed mine workings. Only one longwall panel could potentially impact this area. However, this area is at an elevation between 8800 and 9500 feet and consists of a steep sloped stands of mixed conifer where no cliffs or rocky ledges exist. Possible impacts to vegetation caused by mining induced subsidence will be negligible according to Mr. Bob Thompson, USFS botanist. Without impacts to vegetation, there should be no impacts to the owl habitat.*

**R645-301-322,** the PAP must contain a commitment to monitor for macroinvertebrates in Mill Fork Canyon for three years prior to mining.

*The USGS in cooperation with the Utah DNR and Utah DOGM conducted a comprehensive hydrologic study (from July 1977 through September 1980) of the upper drainages of the Huntington and Cottonwood creeks. Data on benthic invertebrates were collected from 16 sites in October 1977, July and October 1978, and October 1979. This data have been cited in the permit application and used as a baseline evaluation for the Mill Fork Tract. Refer to United States Geological Survey, Water-Resource Investigations, Open-File Report 81-539, Salt Lake City, Utah, 1981.*

*As written from the report, "...data indicate that there were significant seasonal differences in the benthic invertebrate population at a given site in addition to areal differences...These organisms appeared in their maximum numbers in the July samples collected at sites in the higher altitudes of the study area, but they were not present in any of the October samples. The large numbers found in July, reflected a seasonal cycle rather than an unnatural condition that allowed one species to dominate." The average diversity (Shannon-Weiner diversity index) found between 1977 and 1979 in Crandall and Mill Fork canyons was 2.38 and 2.09, respectively. At the time of this mining application, the '77 through '79 study area in Mill Fork Canyon was dry.*

**R645-301-322.230,** the PAP must discuss the potential for Carrington daisy occurrence in the proposed permit area.

*Energy West contacted Mr. Bob Thompson (Plant Botanist, USFS) on the potential for the Carrington daisy to occur in the Mill Fork Lease area. Mr. Thompson indicated during a personal interview that Carrington daisy has been found to occur within the Mill Fork Lease. The area is located at the old limestone quarry west of forest service road 244. This area is planned to be undermined, however, Mr. Thompson does not believe the species will be impacted by subsidence.*

HYDROLOGIC RESOURCE INFORMATON

**R645-301-525.400, -731.530,** The Permittee needs to include a plan for water replacement for Little Bear Spring, and also for other state-appropriated water supplies in and adjacent to the Mill Fork Lease. The plan should specify potential sources for replacement water and how water will be delivered to the water users. The plan should provide for both immediate, short-term replacement and for long-term replacement.

*The Hydrologic Section R645-301-700 has been revised to include the cited regulation; R645-301-731.530 (refer to Hydrologic Section page 106. As stated on page 106: "The permittee will promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES conducted after October 24, 1992, if the affected water supply was in existence before the date the Division received the permit application for the activities causing the loss, contamination or interruption. The baseline hydrologic and geologic information required in R645-301-700. will be used to determine the impact of mining activities upon the water supply. PacifiCorp has conducted baseline hydrologic monitoring to determine pre-mining hydrologic resources (refer to Appendix C). Ground and surface water monitoring programs have been designed to specifically to monitor potential impacts associated with mining in the Mill Fork Lease. Table MFHT-2 lists the ground and surface water rights within and adjacent to the Mill Fork Lease. In addition, Table MFHT-2 list the quantity of the water rights within the projected affected area, and the observed flows collected during the baseline surveys and potential mitigation alternatives. Quality of the State Appropriated Water Supplies are reported in Appendix C".*

**R645-301-731.530,** The Permittee needs to add CVSSD's data, or their own equivalent data, for Little Bear Spring to the baseline data in Appendix C, and add Little Bear Spring to the monitoring plan.

*Volume 12, R645-301-700 Appendix C has been updated to a new tab entitled "Little Bear Spring Data". Included in this tab is historical quantity and quality related to Little Bear Spring.*

**R654-301-724.100, -121.200,** The Permittee needs to rectify the discrepancy between the table in section R645-301-700 – Water Monitoring that indicates RR-5 has a water right, and Table MFHT-2 that does not list RR-5 as having a water right.

*Table MFHT-2 has been revised to rectify the discrepancy cited. In addition, Table MFHT-2 was revised to reflect adjustments in water right locations in Sections 11 and 22, Township 16 South, Range 6 East.*

**R654-301-724.100,** The Permittee needs to explain why only one set of field parameters have been collected as baseline data for EM-216, RR-5 and MF-19B, why the Division should acknowledge this as acceptable and adequate baseline, and how these monitoring points are going to provide useful operational information without adequate baseline data.

*As explained in R645-301-700, Energy West initiated baseline groundwater investigation of the Mill Fork Lease in 2000 and continued through 2001. As part of the process, Energy West reviewed groundwater rights with the Division of Water Rights (original field maps and internet data) to access which springs had claims. As explained on R645-301-700 page 103: The ground water monitoring plan in Appendix A includes a selection of springs based on the following criteria:*

- *Stratigraphic position*
- *Area of potential influence from subsidence*
- *Aerial distribution*
- *Established water rights*
- *Measurable flow based on historical surveys*
- *Reliable measuring point(s)*

*Selection of the springs to be monitored was based upon the factors listed along with discussions with the water users (CVSSD, Emery Conservancy District, NEWUA) and the surface management agency.*

*The three springs cited in the deficiency were selected to be monitored based on water right claims, discussion with the surface management agency and location to the proposed mine*

*workings. Energy West has monitored the three springs as shown in the table below:*

| | Historical Data (Quantity Only) | | | Energy West Data | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Spring Name | 1993 | 1994 | 1995 | 2000 | | 2001 | | 2002 | |
| | | | | High Flow | Low Flow | High Flow | Low Flow | High Flow | Low Flow |
| EM-216* | Seep | <0.3 | Dry | | Seep | 0.5 [1] | Seep | Seep | Seep |
| RR-5* | | 2.0 | Dry | | Seep | 1.6 [2] | <0.1 | 1.1 [3] | Seep |
| MF-19B* | | 0.25 | 0.5 | | 0.4 [4] | Seep | <0.1 | 1.3 [3] | Seep |

* *Water right holder: USFS.*
[1] *Quality sample not collected due to high suspended solids.*
[2] *Quality sample not collected due to high suspended solids, sampled adjacent springs RR-6 and RR-7A.*
[3] *Quality collected on July 24, 2002.*
[4] *Quality sample not collected due to low flow, sampled adjacent spring MF-18B.*

*In reviewing the table above, the reason for the lack of water quality data was mainly due to insufficient flow or inability to collect representative samples because of the low flow conditions. In each sampling situation, Energy West collected water quality samples from adjacent springs with similar quality. Data collected by Energy West (a total of 129 samples) has shown only slight variability in water quality characteristics particularly within each individual geologic formation (refer to R645-301-700 Appendix B, pages 97-99). Water quality samples collected at the springs cited above, or in case of low flow, adjacent springs were sampled, adequately represent baseline conditions. Energy West will continue to monitor the list of springs in Appendix A, unless the surface management agency request alterations to the program.*

**R645-301-724.100,** The Permittee needs to provide the second year of baseline data collected for the springs proposed for operational monitoring, in particular MFR-30 and SP1-29, which have only one baseline point each.

*Energy West has revised R645-301-700: Appendix C to include data collected during 2002. The following table list hydrologic monitoring associated with MFR-30 and SP1-29:*

| | ***Energy West Data*** | | | |
|---|---|---|---|---|
| ***Spring Name*** | ***2001*** | | ***2002*** | |
| | ***High Flow*** | ***Low Flow*** | ***High Flow*** | ***Low Flow*** |
| *MFR-30* | *26.6* [1] | *<0.1* [3] | *Seep* | *Dry* |
| *SP1-29* | *0.5* [2] | *<0.1* [3] | *0.4* [4] | *0.2* [5] |

[1] *Quality collected on May 24, 2001.*
[2] *Quality collected on August 9, 2001.*
[3] *Sample not collected due to insufficient flow*
[4] *Quality collected on July 24, 2002.*
[5] *Quality collected on October 8, 2001.*

*Again, as explained above, the reason for the lack of water quality data was mainly due to insufficient flow or inability to collect representative samples because of the low flow conditions. In the case with MFR-30, Energy West collected water quality samples from an adjacent spring (MFR-10) with similar quality. Data collected by Energy West (a total of 129 samples) has shown only slight variability in water quality characteristics particularly within each individual geologic formation (refer to R645-301-700 Appendix B, pages 97-99). Water quality samples collected at the springs cited above, or in case of low flow, adjacent springs were sampled, adequately represent baseline conditions. Energy West will continue to monitor the list of springs in Appendix A, unless the surface management agency request alterations to the program.*

**R645-301-525.120, -525.500, 727, and -731.530.** The Permittee must describe how appropriated water resources will be replaced in the event their flow is interrupted, diminished or contaminated from coal mining operations.

*Hydrologic Section R645-301-700 has been revised to include the cited new regulation: 731.530 (refer to page 106).*

**R645-100-122, -301-725,** The Permittee must provide to the Division, or otherwise make readily available to the Division, a copy of: *Mayo and Associates, March 1997, Results of in-mine slug tests on the Star Point Sandstone, Genwal Resources consulting report prepared for Genwal Resources, Inc., March, 1997, 15 p.*, which is referenced several times in the PAP.

**The Division inadvertently combined two references listed on page 132, Appendix B.**

*Energy West on November 24, 2002 provided a copy to the Division of the report entitled* ***"Results of in-mine slug tests on the Star Point Sandstone, Genwal Resources consulting report prepared for Genwal Resources, Inc., November, 1997.***

**R645-301-728.200, -728.350,** The Permittee must explain why it does not consider the Crandall Canyon Syncline as an analogous structure to the Straight Canyon Syncline. The Crandall Canyon Syncline, and the potential that mining in this syncline will impact the hydrologic balance in and adjacent to the Mill Fork Lease, Little Bear Spring in particular, needs to be discussed in the PHC.

*Hydrologic Section R645-301-700 has been revised to include a discussion on geologic folding and the significance of these features (refer to page 96).*

## OPERATION PLAN

SUBSIDENCE CONTROL PLAN

**R645-301-521.142, -525.110 and -525.240,** The Permittee must give the Division a map the show the areas that are scheduled to subside (area within the angle-of-draw.) The map must show the subsidence limit for all areas to be mined including subsidence. Stating the information in the text is not considered adequate.

*Energy West has revised the Engineering Section R645-301-521.142 (page 7) to state: As documented in R645-301-525: Annual Subsidence Survey Procedures, the effects of significant subsidence are assumed to be coincident with the outline of the planned mine workings. Therefore, significant subsidence will not cross outside of the permit boundary. Map*

*MFS1866D projects the affected area boundary based on two methods; 1) angle-of-draw, and 2) actual subsidence case studies from the East Mountain area. As depicted on map MFS1866D, the angle-of-draw method projects potential affected areas beyond the northern permit boundary. Based on historical case studies of actual subsidence, (refer to Figure R645-301-500E and Annual Subsidence Reports), the affected boundary will not exceed the permit boundary. If subsidence occurs outside the permit boundary based on annual subsidence surveys, PacifiCorp commits to amending the permit boundary to include the affected area.*

**R645-301-525.130,** The permittee must conduct a survey or study that shows whether surface water from the Mill Fork Lease area flows to the recharge area of Little Bear Spring.

*Energy West completely discussed recharge areas associated with Little Bear Spring (refer to page R645-301-700 pages 50 through 55) including; mechanisms discussed in the Mill Fork Environmental Assessment, geophysical studies conducted by Aqua Track, research conducted by Genwal Resources and Mayo & Associates. Several new references were added to assist the reviewer.*

**R645-301-525.480,** The Permittee must state where they will obtain water rights of sufficient quality and quantity to replace State-appropriated water rights damage from subsidence.

*As discussed previously, the Hydrologic Section R645-301-700 has been revised to include the cited regulation; R645-301-731.530 (refer to Hydrologic Section page 106. As stated on page 106: "The permittee will promptly replace any State-appropriated water supply that is contaminated, diminished or interrupted by UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES conducted after October 24, 1992, if the affected water supply was in existence before the date the Division received the permit application for the activities causing the loss, contamination or interruption. The baseline hydrologic and geologic information required in R645-301-700 will be used to determine the impact of mining activities upon the water supply. PacifiCorp has conducted baseline hydrologic monitoring to determine pre-mining hydrologic resources (refer to Appendix C). Ground and surface water monitoring programs have been designed to specifically monitor potential impacts associated with mining in the Mill Fork Lease. Table MFHT-2 list the ground and surface water rights within and adjacent to the Mill Fork Lease. In addition, Table MFHT-2 list the quantity of the water rights within the projected affected area, and the observed flows collected during the baseline surveys and potential mitigation alternatives. Quality of the State Appropriated Water Supplies are reported in Appendix C".*

**R645-301-525.130,** The Permittee must list all State appropriated water rights in the permit and adjacent areas. In addition the Permittee must list the quality and quantity of the water associated with each water right.

*Refer to previous response.*

**R645-301-525.130,** The Permittee must commit to give a list of the water right survey to each property owner, the local water conservancy district and to the Division.

*As stated on R645-301-500 Engineering Section page 38-39, Energy West committed to notifying the water conservancy district(s) and all owners and occupants of surface property and structures above the underground working six months prior to mining. Through the entire permitting process Energy West has closely conferred with both the surface management agency and water users. Both parties were instrumental in designing the hydrologic monitoring program and providing historical data.*

FISH AND WILDLIFE INFORMATION

**R645-301-130,** Data must be presented to support the statement in the PAP that experience from the existing PacifiCorp permit areas has shown that the effects of subsidence on grazing and grazing lands, timber resources or access to timber resources, wildlife resources are minimal. The PAP must contain a commitment to analyze and provided the Division with a report at the time of permit area reduction that quantifies resource protection.

*A reference to the vegetation and wildlife experts in the Biology Section and information on vegetation and wildlife resources that qualifies the statement "Experience from the existing PacifiCorp permit areas has shown that the effects of subsidence on grazing and grazing resources, vegetation, and wildlife resources are minimal" has been included in the Engineering Section. PacifiCorp has provided a report that quantifies resource protection (i.e. lease relinquishment documents, permit reduction documents, annual reports on vegetation and hydrology, etc.) and will provide this information again at time of permit reduction.*

**R645-301-333,** The PAP must address the adverse effects to the four Colorado River endangered fish species: the Colorado pikeminnow, the humpback chub, the bonytail chub, and the razorback sucker.

*R645-301-330-333 says, "Each application will contain a plan for protection of vegetation, fish, and wildlife resources throughout the life of the mine. The plan will provide:"*

*.333 "A description of how,...the operator will minimize disturbances ... to fish and wildlife and*

*related environmental values during* ***coal mining and reclamation operations****...."*

*The key words in these regulations are coal mining and reclamation operations. This a defined term in the regulations which refer to surface disturbances. However, mining activities are also subject to the requirements of Section 40-10-18 of the Act. The Act states (40-10-18 (2)(i));*

*"(2) Each permit issues pursuant to this chapter and relating to underground coal mining shall require the operator to:"*

*"(i) Minimize the disturbances of the prevailing hydrologic balance at the mine site and in associated offsite areas and to the quantity of water in surface and groundwater systems both during and after coal* ***mining operations*** *and during reclamation by:*

*(i) Avoiding acid or other toxic mine drainage by such measures as, but not limited to:"*

*"(C) casing, sealing, or otherwise managing boreholes, shafts, and wells to keep acid or other toxic drainage from entering ground or surface waters.*

*(ii) Conducting surface coal* ***mining operations*** *so as to prevent,..., additional contributions of suspended solids to stream flow..."*

*and*

*"(k) To the extent possible..., minimize disturbances and adverse impacts of the* ***[mining] operation*** *on fish, wildlife, and related environmental values, and achieve enhancement of these resources where practicable."*

*Section 40-8 defines* ***mining operations*** *as "those activities conducted on the surface of the land for the exploration for, development of, or extraction of a mineral deposit, including, but not limited to, surface mining and the surface effects of underground and in situ mining,..."*

*Energy West interprets R645-301-333 to relate to the disturbed areas from coal mining and reclamation operations. However, to respond to the concerns of the USFWS, Energy West states below the expected water loss/gain due to underground mining operations. This issue will only be responded to in this document. No reference will be provided in the PAP.*

*As mentioned in numerous reports (i.e. Investigations of Surface-Water and Groundwater Systems in the PacifiCorp Leease Area, East and Trail Mountains, Emery County, Utah, Mayo and Associates, Oct. 1997), there are two types of water resources intercepted by underground mining operations; 1) active water zones and 2) inactive zones. Active water zones are usually associated to mining encounters with underground fault systems. These systems are hydraulically connected to the surface and are recharged with precipitation events (i.e. snow and rain). Flow into the mine from these systems is usually constant and may or may not exhibit seasonal fluctuations. Every effort is made to segregate the mine from the fault system. If a fault*

*system is encountered, the immediate area is grouted to eliminate water flow into the mine.*

*Inactive zones are associated with sandstone channel groundwater. These channels may be several miles long, up to 1000 feet wide and are commonly 25 to 30 feet thick. The channels have varying degrees of water saturation, resulting in wet and dry regions of the mine.*

*During mining operations, the channels are penetrated and groundwater drips from the roof. Most roof drips are short lived, persisting for only a few weeks before the flow completely ceases. Typical ages of these intercepted waters are between 5000 and 15,000 years old and would not normally contribute to the quantity of the Colorado River Basin.*

*The TA requires that the PAP must address the adverse effect to the endangered fish species of the Colorado River by determining the amount of water that is consumed by the mine. Consumption estimates should include evaporation from ventilation; coal preparation; sediment pond evaporation; subsidence effects on springs; alluvial abstractions into mines; postmining inflow into workings; coal moisture loss; and direct diversions. The following addresses each one of the above consumption mechanisms.*

***Evaporation from ventilation*** *- In mine water loss due to evaporation is a fairly easy calculation when the barometric pressure and vapor pressures are known. For example, on a 570,000 CFM mine fan, typical volumes of evaporation are approximately 18,000,000 gallons/year. However, this result is dependent on temperature and relative humidity. The evaporation evolves primarily from the inactive hydrologic systems mentioned above.*

***Coal Preparation*** *- PacifiCorp owns water rights for use in their coal preparation plants.*

***Sediment pond evaporation*** *- The sediment pond is used to hold rain and snow runoff that flows over disturbed areas of the coal mining and reclamation operations until accumulated sediment has dropped out. At that point the water is discharged into a receiving stream. This would not be considered a consumption mechanism.*

***Subsidence effect on springs*** *- In twenty-five years of mining, there have been no reported effects on springs due to subsidence. Refer to the Hydrology Section R645-301-728 and Appendix B, Section 11, Probable Hydrologic Consequences (reported by Mayo and Associates, 2001).*

***Alluvial abstractions into mines*** *- There will be no water infiltrations from alluvial systems into the mine.*

***Postmining inflow into workings*** *- There currently no proposed mine openings for the Mill Fork*

*Lease. Currently, there is a planned postmining water discharge associated with the Deer Creek portals (refer to the Deer Creek reclamation plan).*

***Coal moisture loss*** *- Typically the inherent moisture in coal mined at Deer Creek is approximately 5%. Run-of-mine moisture averages approximately 8.5 %. Deer Creek is scheduled to mine 4.2 million tons in 2002. Using these values the consumption is approximately 161 acre feet of water.*

***Direct diversion*** *- no consumption.*

*Adding the two losses due to mining operations (Evaporation + Coal Moisture ) equals 161 plus 55 acre feet of water consumed. The resultant is approximately 216 acre feet of water per year. If mine discharge is added to the equation, an enhancement to the hydrologic resource would be achieved. In 2001, the Deer Creek mine discharged nearly 2,670 acre feet into the Huntington Canyon drainage system. Theoretically, this would be a net gain of 2,453 (2,670-216) acre feet of water into the Colorado River Basin. Therefore, it the opinion of PacifiCorp and Energy West that water consumption by underground coal mining operation will not jeopardize the existence of or adversely modify the critical habitat of the Colorado River endangered fish species.*

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

**R645-301-521.141,** The Permittee must provide a map indicating the boundaries of all areas proposed to be affected by mining.

*This deficiency was previously discussed.*

# APPLICATION FOR COAL PERMIT PROCESSING

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

**Permittee:** PacifiCorp
**Mine:** Deer Creek Mine **Permit Number:** C/015/018
**Title:** Response to the Deficiencies to the Mill Fork Lease Application (Round 2), PacifiCorp, Deer Creek Mine, C/015/018-PM01I, Emery County, Utah.

**Description,** Include reason for application and timing required to implement:
Response to October 17, 2002 deficiencies.

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

☒ Yes ☐ No 1. Change in the size of the Permit Area? Acres: 5562.82 Disturbed Area: _____ ☒ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☒ Yes ☐ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☒ Yes ☐ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
*Explain*: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☒ Yes ☐ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☒ Yes ☐ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☒ Yes ☐ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☒ Yes ☐ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
☒ Yes ☐ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

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

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

Charles A. Semborski
Print Name

Charles A. Semborski Geology/Permitting Supervisor 12/3/02
Sign Name, Position, Date

Subscribed and sworn to before me this 3rd day of December, 2002

Lori Ann Anderson
Notary Public

My commission Expires: 12/22/, 2005

Attest: State of Utah } ss:
County of Emery

LORI ANN ANDERSON
NOTARY PUBLIC • STATE of UTAH
31 NORTH MAIN
HUNTINGTON, UT 84528
COMM. EXP. 12-22-2005

RECEIVED
DEC 04 2002
DIV. OF OIL, GAS & MINING

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

**Permittee:** PacifiCorp
**Mine:** Deer Creek Mine **Permit Number:** C/015/018
**Title:** Response to the Deficiencies to the Mill Fork Lease Application (Round 2), PacifiCorp, Deer Creek Mine, C/015/018-PM01I, Emery County, Utah.

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

| | | | DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED |
|---|---|---|---|
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-100: General Information, Replace Map MFU1837D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-100: General Information, Replace Map MFS1838D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-200: Soils, Replace Map MFS1834B |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12 R645-301-300: Biology, Replace Entire Text Section |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-300: Biology, Appendix A, Replace Report Cover Sheets |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12 R645-301-300: Biology, Replace Map MFS1821D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12 R645-301-300: Biology, Replace Map MFS1852B |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-400: Land Use and Air Quality, Replace Map MFS1835B |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-400: Land Use and Air Quality, Replace Map MFS1836B |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-400: Land Use and Air Quality, Insert Map MFS1856B |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-500: Enginering, Replace Entire Text Section |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-500: Enginering, Replace Map MFU1841D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-500: Enginering, Replace Map MFU1840D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-500: Enginering, Replace Map MFS1839D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-500: Enginering, Replace Map MFS1857D |
| ☒ Add | ☐ Replace | ☐ Remove | Volume 12, R645-301-500: Enginering, Insert Map MFS1866D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Entire Section |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Appendix A |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Appendix B (Drill Hole Tabulation Sheet) |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFU1823D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFU1829D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFS1824D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFU1827D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFU1826D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFS1825D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-600: Geology, Replace Map MFU1828D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Replace Entire Text Section |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Figures Tab, Replace Figure MFHF-4 and MFHF -5 |

| Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan. | Received by Oil, Gas & Mining |
|---|---|
| | RECEIVED<br>DEC 04 2002<br>DIV. OF OIL, GAS & MINING |

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

**Permittee:** PacifiCorp
**Mine:** Deer Creek Mine **Permit Number:** C/015/018
**Title:** Response to the Deficiencies to the Mill Fork Lease Application (Round 2), PacifiCorp, Deer Creek Mine, C/015/018-PM01I, Emery County, Utah.

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

| | | | DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED |
|---|---|---|---|
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Tables Tab, Replace Table MFHT-1 and MFHT-2 |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Replace Appendix A |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Replace Map MFS1830D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Replace Map MFS1831D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Replace Map MFS1832D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, R645-301-700: Hydrology, Replace Map MFS1851D |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Replace Field Data Tab (New Tab 2000 - 2002) |
| ☒ Add | ☐ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Insert 2002 Field Data in Field Data Tab (end of section) |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Replace Elevation vs. Total Dissolved Solids Data (retain tab) |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Replace SP1-26, MF-219, EM-215, UJV-206, UJV-209, UJV-214 |
| ☒ Add | ☐ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Insert Grants Spring, Little Bear Spring |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Replace Stratigraphic Location Chart (retain tab) |
| ☐ Add | ☒ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Replace Water Quality Data in Water Quality Tab (end of section) |
| ☒ Add | ☐ Replace | ☐ Remove | Volume 12, Appendix C (Separate Binder), Insert New Tab (Little Bear Spring) |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |
| ☐ Add | ☐ Replace | ☐ Remove | |