



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

August 19, 2013

Kenneth S. Fleck, Manager of Geology and Environmental Affairs  
Energy West Mining Company  
P.O. Box 310  
Huntington, Utah 84528

Subject: Amendment to Volume 9, Appendix A to Reduce the Hydrologic Monitoring Sites, PacifiCorp, Deer Creek Mine, C/015/0018, Task ID #4381

Dear Mr. Fleck:

The Division has reviewed your application to reduce the hydrologic monitoring sites at the Deer Creek Mine. The Division has identified deficiencies that must be addressed before final approval can be granted. The deficiencies are listed as an attachment to this letter.

The names of the deficiencies authors are provided following the deficiency details so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied. Please resubmit the entire application.

If you have any questions, please call me at (801) 538-5325.

Sincerely,

Daron Haddock  
Coal Program Manager

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## FINDINGS DOCUMENT

### Utah Coal Regulatory Program

**PID:** C0150018  
**TaskID:** 4381  
**Mine Name:** DEER CREEK MINE  
**Title:** REDUCE HYDROLOGIC MONITORING SITES

#### Operation Plan

#### Hydro GroundWater

##### *Deficiencies Details:*

The application does not meet the water monitoring requirements of the State of Utah R645-Coal Mining Rules. The following deficiencies must be addressed prior to the Division approval of the application:

R645-301-731.214: Spring 79-29 - The justification for eliminating this spring from the groundwater monitoring program is that there has been no change in pre-mining and post-mining water quality or quantity. This explanation is justified for removal of this spring from the monitoring plan. However, this argument was made in the first submittal and left out of the July 2013 submittal.

R645-301-731.214: Spring 82-52 - The justification for eliminating this spring from the groundwater monitoring program is that there has been no change in pre-mining and post-mining water quality or quantity. Several possible inaccurate statements are included in the justification form. Such as:

""Pre- and Post-water quality data is included for spring 82-52. Data show insignificant variances between pre- and post-quality results.""

Based on DOGM review mining began in 1975 but monitoring was not begun until 1982 and this indicates that no premining data is available. The permittee must either better demonstrate premining data or adjusted these statements and reevaluate spring 82-52. The justification for removal will be reexamined after this further explanation or reevaluation.

R645-301-731.214: Spring 89-60 - The justification for eliminating this spring from the groundwater monitoring program is that there has been no change in pre-mining and post-mining water quality or quantity. Several possible inaccurate statements are included in the justification form. Such as:

""Pre- and Post-water quality data is included for springs 79-38, 89-60, and Ted's Tub.""

and

""Sites 79-38, 89-60, and Ted's Tub have been monitored by Energy West Mining Company since 1979.""

Based on DOGM review mining began in 1988 but monitoring was not begun until 1989 and this indicates that no premining data is available. The permittee must either better demonstrate premining data or adjusted these statements and reevaluate spring 89-60. The justification for removal will be reexamined after this further explanation or reevaluation.

R645-301-731.214: Spring 80-47 - The justification for eliminating this spring from the groundwater monitoring program is that there has been no change in pre-mining and post-mining water quality or quantity. Several possible inaccurate statements are included in the justification form. Such as:

""Pre- and Post-water quality data is included for spring 80-47. Data show insignificant variances between pre- and post-quality results.""



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Based on DOGM review mining began in 1977 but monitoring was not begun until 1981 and this indicates that no premining data is available. The permittee must either better demonstrate premining data or adjusted these statements and reevaluate spring 80-47. The justification for removal will be reexamined after this further explanation or reevaluation.

Spring 79-40 - The justification for eliminating spring 79-40 from the groundwater monitoring program is there has been no change in pre-mining and post-mining water quality or quantity. The pre-mining water quantity data shows flow between 2 gpm to 15 gpm from 1983 to 1988. Since subsidence was completed in 1998 flows have ranged from 0 gpm to 2 gpm. Due to the periods of no flow from 2002 to 2004 and 2007 to 2010 the Division finds it necessary to continue monitoring of this location to better evaluate these dry periods flow.

R645-301-731.214: Spring 18-2-1 - The justification for eliminating this spring from the groundwater monitoring program is there has been no change in pre-mining and post-mining water quality or quantity. The pre-mining water quantity data shows flow between 0 gpm to 18.9 gpm from 1987 to 1998. Since subsidence was completed in 2002 flows have ranged from 0 gpm to 3.6 gpm. Due to the numerous periods of no flow since 2002, the Division finds it necessary to continue monitoring of this location to better evaluate these dry periods flow.

R645-301-731.214: Spring 84-56 - The justification for eliminating spring 84-56 from the groundwater monitoring program is that there has been no change in pre-mining and post-mining water quality or quantity. No pre-mining water quality data is presented so this is unsupported. Further, the request does not sufficiently explain the measurement of no flow from 2002 until 2006 and again from 2007 until 2011. Prior to mining flows were present from 1.6 gpm to 6.2 gpm. Since 2011 flows up to 0.84 gpm have appeared. The Division finds it necessary to continue monitoring of this location to evaluate the return of this flow.

R645-301-731.214 and 728.334: Spring 17-35-1 - The justification for eliminating spring 17-35-1 from the groundwater monitoring program is that there has been no change in pre-mining and post-mining water quality or quantity. Prior to mining flows varied from less than 0.5 gpm to more than 3 gpm from 1988 to 1999. However, following subsidence completion in 2002 every measurement has registered as no flow or at best ground saturation. In addition, the Permittee indicates that a grazing permittee unsuccessfully attempted to redevelop the spring in August 2000. The Division rejects the request to cease monitoring at spring 17-35-1. In addition, if no flow has been present since 2002 and a grazing permittee has attempted and failed at redevelopment then the Division requires the permittee update their MRP to address any probably hydrologic consequences at this location.

R645-301-731.214: Because the Division database does not contain all of the flow data presented in the permittee's justifications the permittee shall electronically submit a copy of all flow data provided in justification graph in Microsoft Excel or comma separated format.

R645-301-731.214: Appendix A shall be updated as necessary in accordance with these findings. In addition, the permittee shall keep all locations within currently held leases and notate these as inactive and that monitoring will be resumed if mine workings are ever redeveloped.

khoffman