



GARY R. HERBERT  
Governor

SPENCER J. COX  
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

July 18, 2018

Ken Fleck, Manager of Geology and Environmental Affairs  
Interwest Mining Company  
P.O. Box 310  
Huntington, Utah 84528

Subject: Reduce Hydrologic Monitoring Sites, PacifiCorp, Deer Creek Mine, C/015/0018,  
Task #5690

Dear Mr. Fleck:

The Division has reviewed your application. 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 deficiencies authors are identified so that your staff can communicate directly with that individual should questions arise. The plans as submitted are denied.

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

Sincerely,

Daron R. Haddock  
Coal Program Manager

DRH/sqs

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## Technical Analysis and Findings

### Utah Coal Regulatory Program

**PID:** C0150018  
**TaskID:** 5690  
**Mine Name:** DEER CREEK MINE  
**Title:** REDUCE HYDROLOGIC MONITORING SITES

## Summary

The Deer Creek mine submitted an amendment to reduce hydrologic monitoring sites within the water monitoring program on June 6, 2018. The Division has assigned this amendment to Task #5690.

kstorrar

## Operation Plan

### Hydrologic Ground Water Monitoring

#### Analysis:

- **Regulatory Citations to Use Ground Water Monitoring Section**
  - R645-301-731.214: "GW monitoring will proceed through mining and continue during reclamation until bond release. –The Division may modify the monitoring requirements including the parameters covered and the sampling frequency if the operator demonstrates, using ... monitoring data that..."
    - 301-214.1: "The coal mining and reclamation operation has minimized disturbance to the prevailing hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area".

The amendment does not meet the State of Utah R645 rules for Ground Water Monitoring.

On June 6<sup>th</sup>, 2018, the Division of Oil, Gas and Mining (the Division) received an amendment to revise the approved hydrologic monitoring plan for the Deer Creek Mine. The amendment proposes the removal of all monitoring sites from the approved ground water monitoring plan.

R645-301-731.214 discusses how water monitoring "will proceed through mining and continue during reclamation until bond release". The rule also allows for the Division to modify the monitoring requirements (including the parameters covered and the sampling frequency) if a demonstration is made that impacts to the hydrologic balance in the permit and adjacent areas have been minimized and material damage to the hydrologic balance outside the permit area prevented.

Additionally, in order for the Division to approve a Phase III bond release application, the application must provide a groundwater quality and quantity impact analysis assessing the hydrology data relative to the impacts identified in the Probable Hydrologic Consequences (PHC) and Cumulative Hydrologic Impact Assessment (CHIA). The Division must make a finding that material damage to the hydrologic balance has been prevented. As a result, continued water monitoring and data collection are integral during the 10-year liability period following final reclamation.

The Division recognizes that due to termination of active mining activity and the final reclamation work of the mine site, a

reduction in water monitoring may be appropriate and indeed, allowed under the State of Utah R645 rules. However; in order to evaluate a reduction in water monitoring, the Division feels it is appropriate and necessary to conduct a field inspection of the monitoring sites. The field inspection will be conducted in conjunction with the Permittee, the USDA Forest Service and the Division. The purpose of the field inspection will be to determine the extent of monitoring needed to assess potential impacts/material damage to the hydrologic balance at phase III bond release. Due to the Trail Mountain Fire, access to areas of water monitoring has been restricted. As such, the Division finds the amendment deficient at this time.

Once the areas affected by the Trail Mountain fire have stabilized to the extent that a safe field reconnaissance can occur, the Division will work with the Permittee in scheduling and conducting the inspection in conjunction with appropriate USDA Forest Service personnel.

*Deficiencies Details:*

R645-301-731.214: The Permittee must conduct a field inspection in conjunction with the Division and the USDA Forest Service in order to ascertain the extent of monitoring that is required to assess potential impacts/material damage to the hydrologic balance within and adjacent to the permit area.

kstorrar

## Hydro Surface Water Monitoring

*Analysis:*

- **Regulatory Citations to Use Surface Water Monitoring Section**
  - R645-301-731.224: "Surface-water monitoring will proceed through mining and continue during reclamation until bond release.—The Division may modify the monitoring requirements...if the operator demonstrates..."

R645-301-224.1: "The operator has minimized disturbance in the hydrologic balance in the permit and adjacent area and prevented material damage to the hydrologic balance outside the permit area. .quality/quantity are suitable to support approved postmining land use".

The amendment does not meet the State of Utah R645 rules for Surface Water Monitoring.

On June 6<sup>th</sup>, 2018, the Division of Oil, Gas and Mining (the Division) received an amendment to revise the approved hydrologic monitoring plan for the Deer Creek Mine. The amendment proposes the removal of all monitoring sites from the approved ground water monitoring plan.

R645-301-731.224 discusses how water monitoring "will proceed through mining and continue during reclamation until bond release". The rule also allows for the Division to modify the monitoring requirements (including the parameters covered and the sampling frequency) if a demonstration is made that impacts to the hydrologic balance in the permit and adjacent areas have been minimized and material damage to the hydrologic balance outside the permit area prevented.

Additionally, in order for the Division to approve a Phase III bond release application, the application must provide a groundwater quality and quantity impact analysis assessing the hydrology data relative to the impacts identified in the Probable Hydrologic Consequences (PHC) and Cumulative Hydrologic Impact Assessment (CHIA). The Division must make a finding that material damage to the hydrologic balance has been prevented. As a result, continued water monitoring and data collection are integral during the 10-year liability period following final reclamation.

The Division recognizes that due to termination of active mining activity and the final reclamation work of the mine site, a reduction in water monitoring may be appropriate and indeed, allowed under the State of Utah R645 rules. However; in order to evaluate a reduction in water monitoring, the Division feels it is appropriate and necessary to conduct a field inspection of the monitoring sites. The field inspection will be conducted in conjunction with the Permittee, the USDA Forest Service and the Division. The purpose of the field inspection will be to determine the extent of monitoring needed to assess potential impacts/material damage to the hydrologic balance at phase III bond release. Due to the Trail Mountain Fire, access to areas of water monitoring has been restricted. As such, the Division finds the amendment deficient at this time.

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R645-301-731.224: The Permittee must conduct a field inspection in conjunction with the Division and the USDA Forest Service in order to ascertain the extent of monitoring that is required to assess potential impacts/material damage to the hydrologic balance within and adjacent to the permit area.

**kstorrar**