



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

January 30, 2018

Kirk Nicholes, Resident Agent  
Alton Coal Development, LLC  
463 North 100 West, Suite 1  
Cedar City, Utah 84720

Subject: Conditional Approval of Pit 10 Drainage Controls, Alton Coal Development, LLC,  
Coal Hollow Mine, C/025/0005, Task #5565

Dear Mr. Nicholes:

The above-referenced amendment is approved conditioned upon receipt of 2 clean copies prepared for incorporation. Please submit these copies by February 28, 2018. Once we receive these copies, final approval will be granted.

A stamped incorporated copy of the approved plans will also be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan.

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:** C0250005  
**TaskID:** 5565  
**Mine Name:** COAL HOLLOW  
**Title:** PIT 10 DRAINAGE CONTROLS

## Summary

The underground mine is located at the base of Pit 10. Water flowing from the surrounding 25.2 acres reports to Pit 10. The North cutslope and West highwall of Pit 10 were cut into alluvium and fractured shale rock. A spring located near the NW corner of the West highwall saturates the shale and causes spalling of the rock into the sump. The south side of Pit 10 is a fill slope that drains water from the adjacent alluvium. The underground mine in Pit 10 has been idle since June 2016. This application would eliminate maintenance of ditches shown on the North cutslope, highwall bench and fill slopes (Dwg 5-3B Underground Facilities and Structures As-Built), due to safety concerns. Drainage control would be through maintenance of the culverts, catch basins and ditches along the primary haul road and within the Pit 10 floor. The sump would be modified as shown on Dwg 5-3C, Underground Facilities & Structures layout. Water from the sump would continue to be pumped to Pond #3.

pburton

## General Contents

### Maps and Plans

*Analysis:*

The amendment meets the State of Utah R645 requirements for Maps and Plans.

Due to safety concerns, this amendment proposes to discontinue all maintenance of drainage channels within Pit 10 going forward. Additionally, the capacity of the in-pit sump will be augmented as well as construction of a gravel filter dike separating the inlet side of the sump from the outlet side. All of the proposed modifications to Pit 10 including the augmented in-pit sump as well as all channels where maintenance will be discontinued have been added to Drawings 5-3B and 5-3C.

jeatchel

## Operation Plan

### Hydrologic Sediment Control Measures

*Analysis:*

The amendment meets the State of Utah R645 requirements for Sediment Control Measures.

The amendment updates the design and narrative for the drainage ditches reporting to the sump in the bottom of Pit 10.

The conditions of the highwalls surrounding the pit have become too dangerous to work under/near. Therefore, the ditches near or at the base of the highwalls will no longer be maintained as originally designed. The reduced maintenance on the ditches will not negatively affect water quality leaving the permit area. Runoff within Pit 10 will still report to the sump at the bottom of the pit. Excess water in the sump is filtered through a gravel and fabric divider and is pumped to Sediment Pond 3.

kstorrar

## Hydrologic Siltation General

### *Analysis:*

The amendment meets the State of Utah R645 requirements for General Hydrologic Siltation.

This amendment proposes to update the maintenance protocols for the drainage channels in pit 10. Pit 10 itself is a relatively shallow pit that is excavated in overburden and a weak shale layer directly above the coal seam. Since the geologic strata above the coal seam is weak and incompetent, the walls of the pit are prone to sloughing and localized failures, especially when saturated by seeps and springs located at the pit crest. A system of channels and an in-pit sump were constructed to control the amount of sediment that was eventually pumped from the sump and into sediment pond 3. In addition to channels installed on intermediate catch benches within the pit, another was cut parallel to the primary road leading into the pit. Over time, the deteriorating condition of the highwalls rendered continued maintenance of these channels unsafe to mine personnel. Therefore, Permittee proposes to permanently discontinue the maintenance of these channels going forward.

Abandoning the maintenance protocols for the drainage channels within Pit 10 may lead to a higher sediment load reporting to sediment pond 3. In response to this, the amendment proposes to augment the capacity of the in-pit sump as well as construct a gravel filter dike separating the inlet side of the sump from the outlet side. As contaminated water flows into the inlet side, sediments will settle out as the water flows through the gravel filter to the outlet or "clean water" side. The in-pit sump as well as all ditches and culverts leading into it have been sized to carry runoff from a 100-year - 24 hour storm event.

jeatchel

## Hydrologic Siltation Treatment

### *Analysis:*

The amendment meets the State of Utah R645 requirements for Sedimentation Ponds.

The amendment will not change how the bottom of Pit 10 is dewatered and pumped to Sediment Pond 3. Runoff reporting to the bottom of the pit will collect in the sump. The sump still has the filtration barrier installed a year ago, that filters the excess water before it is pumped to Pond 3. All water pumped from Pit 10 will be treated in Sediment Pond 3 if/when it is discharged out of the permit area. Sediment Pond 3 is regulated and must comply with the UPDES outfall effluent limits issued for the pond's outfall.

kstorrar