



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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December 1, 1995

TO: Daron Haddock, Permit Supervisor

FROM: Ken Wyatt, Reclamation Hydrologist *KW*

RE: PHC at Trail Mountain, PacifiCorp, Trail Mountain #9 Mine,
ACT\015\0009, Folder #3, Carbon County, Utah

SYNOPSIS

On November 13, 1995, the Division received a revised PHC for the Trail Mountain Mine. This submittal was based on Division Order 95A.

ANALYSIS

This PHC is essentially the previous PHC for the Trail Mountain Mine revised to include information from PacifiCorp. The PHC indicates that ground water inflow will occur at the Trail Mountain Mine especially as the working progress to the west and south. The water table in the Blackhawk Formation is such that water interception is expected towards the west and south.

The permittee drilled a monitoring well in Straight Canyon in 1993 in order to place a down-gradient well associated with the Starpoint Sandstone. This well is under artesian pressure. On June 22, 1994, 65 pounds per square inch of pressure was recorded at the well head.

The permittee used the ground water modeling work done by the USGS for trail Mountain as a basis to estimate potential ground water inflows. Based on the permittee's extrapolation of the USGS model, between 80 and 170 gallons per minute of water may be encountered with additional amounts possible if fractured conditions are encountered. The previous mine operator did not conduct longwall mining which PacifiCorp is planning. Longwall mining in the Wasatch Plateau has historically produced larger mine water inflows than conventional mining methods. The PHC estimates that 0.2 percent of the annual flow in Cottonwood Creek may be consumed for in mine use.



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Several springs which issue from the Blackhawk Formation could potentially be impacted. The artesian pressure associated with TM-3 could also be affected. PacifiCorp commits to replace any water determined to have been lost due to the mining activities. This water replacement commitment is discussed on page 2-10.

RECOMMENDATION

Although potential impacts have been identified, PacifiCorp has agreed to mitigate any adverse impacts and to replace water lost due to mining. I recommend that the submittal incorporated into the applicant's permit.