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

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April 2, 1999

TO: File

THRU: Daron Haddock, Permit Supervisor 

FROM: David Darby, Senior Reclamation Specialist 

RE: Longwall Abandoned Underground, Cyprus-Plateau Mining Corporation, Star Point Mine, ACT/007/006-99A, File #2, Carbon County, Utah

SYNOPSIS

The Division received an engineering report on from Cyprus Plateau Mining Company on March 5, 1999 identifying the need to leave longwall mining equipment in the mine. The following analysis was conducted to identify the potential impacts to the hydrologic regime from leaving the longwall in place, under ground.

HYDROLOGIC RESOURCE INFORMATION

R645-301-700

Analysis:

Baseline information.

The applicant submitted a hydrologic assessment prepared by Hansen, Allen and Luce identifying the potential of impacts to the groundwater system. The report evaluates the potential of groundwater contamination and impacts from the longwall machinery as the lease is abandon and the groundwater system is reestablished. The report also describes the chances of contamination to the surface waters by corrosion and decay of equipment and leakage of oils and greases from the equipment..

The gradient and mine layout present a desirable situation to divert groundwater away from the abandon equipment. The applicant provided well data showing the levels and trends of groundwater recovery from mining. The ground water elevations are not expected to come in contact with the equipment, even so it is not likely that conditions would exist to corrode or oxidize the machinery molecularly, where it could be transported in concentrations to contaminate surface water sources.

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The report identifies fluids used to lubricate the equipment and operate the hydraulic rams. Only a small portion of fluids are identified as remaining in the equipment incapable of being drained. It is unlikely that the lubricant could reach the surface in concentrations to affect water quality. More likely is that any fluids or corroded metals of the longwall equipment would take a significant amount of time to reach the surface, and be of low concentration so that water quality is not effected..

Findings:

Based on a review of the report and information garnered from Steve Falk, Bureau of Land Management, and Johnny Pappas, Cyprus-Plateau, it is concluded that the abandon longwall unit in Panel 42 has a low probability of impacts to the hydrologic system.

Recommendation:

The applicant should update the Probable Hydrologic Consequences document in the MRP to reflect the existence of the longwall mining equipment left underground and findings of impacts.

cc. Mary Ann Wright
Joe Helfrich
Pam Grubaugh-Littig
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