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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 1, 2010

TO: Internal File

THRU: Jim Smith, Permit Supervisor *Dec 2 Dec 2010*

FROM: Kevin Lundmark, Hydrologist *KWL*

RE: Beaver Creek Protection and Enhancement Plan and Raptor Survey Requirements, Task ID #3666, Hidden Splendor Resources Inc., Horizon Mine, C/007/0020

SUMMARY:

On November 1, 2010 the Division received an amendment (Task ID# 3666) from Hidden Splendor Resources proposing revisions to the requirement in the Horizon MRP to complete a Protection and Enhancement Plan prior to retreat mining under Beaver Creek. This submittal responded to deficiencies identified by the Division for a previous submittal (Task ID# 3587). This Technical Memorandum includes a review of the amendment for requirements related to Hydrology.

The amendment is not recommended for approval at this time. Prior to approval, the Permittee must address the following deficiency:

R645-301-121.100 Groundwater monitoring well HZ-95-3 has reportedly been mined through, though this is not reflected in the mine map submitted. The Permittee must revise the mine map to show the corrected location of well HZ-95-3 and / or the mine workings in this area, and provide timing when well HZ-95-3 was mined through.

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TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

The amendment included a mine map which was requested by the Division during the review of TID# 3587. The mine map was to include: Underground Workings; Past Mining Activities & Timing (include location and year that advance & retreat mining took place); Future Mining Activities & Timing; Locations and timing where past advance & retreat mining have taken place beneath Beaver Creek; Locations and timing where future advance & retreat mining is expected to take place beneath Beaver Creek; Overburden thickness contours, including a 900-foot contour delineating areas where less than 900 feet of overburden exists; Subsidence monitoring stations; Surface elevation contours; Perennial streams, including Beaver Creek; and Water monitoring locations.

The North Fork of Gordon Creek (a perennial stream) is not shown on the mine map, nor does the mine map include surface elevation contours. This information is available elsewhere in the MRP (e.g., Plate 7-1). Water monitoring locations shown on the mine map were compared to the surface water monitoring and groundwater monitoring program descriptions in the approved MRP. The results of this comparison are summarized below.

Groundwater Monitoring

Groundwater monitoring wells HZ-95-1, HZ-95-1S, HZ-95-3 and HZ-01-06 are shown in the map; however, they are not shown with the "Water Monitoring Point" symbol described in the legend. The location of well HZ-95-2 is obscured by shading used to illustrate mining projections. When shown, the groundwater monitoring well locations appear to be consistent with MRP Plate 7-1 Water Monitoring Locations. There are two locations shown for well HZ-95-3, which are approximately 75 feet apart. Groundwater monitoring well HZ-95-3 has reportedly been mined through, though this is not reflected in the mine map submitted.

Spring monitoring locations SP-1, SP-2, SP-4, SP-9 (Jewkes Spring), 2-6-W (Homestead Spring) and GV-70 are shown on the mine map submitted with the amendment. These locations appear to be consistent with MRP Plate 7-1 Water Monitoring Locations.

Surface Water Monitoring

Surface water monitoring locations SS-3, SS-5, SS-7, SS-8, SS-10 and SS-11 are shown on the mine map submitted with the amendment. These locations appear to be consistent with MRP Plate 7-1 Water Monitoring Locations.

Findings:

The amendment does not meet the minimum Hydrologic Information requirements of the State of Utah R645 Coal Mining Rules and should not be approved. Prior to the Division approving the application, the following deficiency must be addressed:

R645-301-121.100 Groundwater monitoring well HZ-95-3 has reportedly been mined through, though this is not reflected in the mine map submitted. The Permittee must revise the mine map to show the corrected location of well HZ-95-3 and / or the mine workings in this area, and provide timing when well HZ-95-3 was mined through.

RECOMMENDATIONS:

The application does not meet the requirements of the State of Utah R645 Coal Mining Rules and is not recommended for approval at this time. The Permittee must address the deficiency identified above prior to obtaining Division approval.