

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

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#3076

January 5, 2009

TO: Internal File

THRU: Dave Darby, Team Lead   
Jim Smith, Permit Supervisor

FROM: April A. Abate, Environmental Scientist II   
1-5-09

RE: Midterm Permit Review, Hidden Splendor Resources Inc, Horizon Mine,  
C/007/0020, Task ID # 3076

### GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

#### Analysis:

The Mining and Reclamation Plan (MRP) in its updated form was approved and the Permit was renewed for the Hidden Splendor Resources Group, Inc. on October 11, 2006. The mine is presently active and producing coal. Chapter 6 includes the geologic information for the Horizon Mine area in accordance with the requirements set forth in R645-301-600. Much of the Permittee's geologic data has been obtained from previous studies conducted in the area by the Beaver Creek Coal Company and the US Geological Survey in the late 1970s, early 1980s. The data included drill logs and cross-sections generated during their exploration and mining efforts. Additional information from recent geologic publications and exploration holes drilled in 1995 were also included to supplement the information.

The mine is located on the northeastern limits of the Wasatch Plateau, which is characterized by several faults in the area with offsets of up to 250 feet. The economically mineable seams are found in the lower 350 feet of the Blackhawk Formation and include the Castlegate "A" and Hiawatha formations that average between approximately 5 to 8 feet in thickness.

Chapter 6 contains a description of the general geologic environment of the permit and adjacent areas. Plates 6-2 and 6-3 are geologic cross-sections that illustrate the stratigraphic relationships of the Blackhawk and Star Point Formations and the mappable coal beds present in the Horizon No. 1 Mine area.

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**Findings:**

The midterm review of the MRP indicates that the Permittee has submitted sufficient Geologic Resource Information to meet the requirements of regulations R645-3-1-600.610 thru 627. However, one deficiency was found based on the following regulation:

**[R645-301.631] Casing and Sealing of Exploration Holes and Boreholes:**

According to the MRP, four exploration holes were drilled in 1976 by LMC Resources Inc. Well logs for these exploration holes were included in Chapter 6. The locations of LMC-1, LMC-3, LMC-4 are depicted on Plate 7-1. LMC-2 was not depicted on the map. Section 6.5.1.1 specifically states in the MRP that the LMC-1, LMC-2, LMC-3 and LMC-4 exploration holes will be "plugged and abandoned following State-approved methods", implying that this process has not yet been completed.

According to the Permittee, given the 33-year age of the LMC-series exploration holes, they have likely been plugged and abandoned by one of the previous ownership entities and that no evidence exists indicating that the exploration holes are still present on the site. However, the MRP prepared by Hidden Splendor does not document the plugging of these wells (likely because it was completed by a previous owner), and the wells were drilled prior to SMCRA regulations.

The Permittee needs to update the language in Section 6.5.1.1 to reflect that these wells no longer exist. Revisions to Plate 7-1 should also be made indicating that these wells no longer exist. Since Plate 7-1 shows the locations of the LMC wells (with the exception of LMC-2), it is recommended that the Division perform a field check during the next routine inspection of these areas to verify whether or not any evidence exists indicating that these wells were plugged.