

# 3930

R

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

---

November 1, 2011

TO: Internal File *10074*

THRU: Ingrid Campbell, Team Lead *IC*

FROM: April A. Abate, Environmental Scientist III *aaa 11-1-2011*

RE: Midterm Permit Review, West Ridge Resources, Inc., LLC, West Ridge Mine, C/007/0041, Task ID #3930

### SUMMARY:

In accordance with R645-303-211, the Division of Oil, Gas, and Mining (the Division) is required to review each active permit during its term. The Division commenced the Midterm Review for the West Ridge Mine on September 29, 2011. This Technical Memorandum will review any and all commitments and permit conditions relating to geology requirements of the R645-301-600 Utah Coal Rules.

The Master List of Commitments was reviewed for any commitments pertaining to the geology, none were identified. The latest 5-year permit renewal for the West Ridge mine was effective April 1, 2009. No special conditions (Section 18-Attachment A) of the permit were identified pertaining to the geology requirements of the R645-301-600 Utah Coal Rules.

The December 16, 2009 Master Technical Analysis document prepared by the Division determined that all geological information provided in the MRP was considered adequate to meet the requirements of this section. This technical review will focus on a review of the geology section of the Mining and Reclamation Plan (MRP) to determine if any information in the plan is noncompliant in accordance with the Utah Coal Rules.

### **Findings:**

Midterm approval is not recommended until the following minor deficiencies are corrected in the MRP:

**[R645-301-622.400]:** Section 622.400 on page 6-6 of the MRP states that “*No oil and gas wells exist within the proposed permit area*”. According to Map 6-1 – Regional Geology

---

TECHNICAL MEMO

---

Map, Section 3 of T.14 S. R. 13 E. gas vent well sites are located in Bear Canyon. Section 622.400 will need to be updated to address the gas vent well sites in Bear Canyon.

**[R645-301-622]:** The Table of Contents – Map List on page iii of Chapter 6 indicates that the scale of each of these maps is: 1" = 1,000'. The scale shown on the maps themselves indicates a scale of 1" = 2,500', with the exception of Map 6-1A showing a scale of 1" = 700'. The scale information on the Chapter 6 Table of Contents should either be updated or removed altogether.

## GEOLOGIC RESOURCE INFORMATION

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

### Analysis:

The Permittee complied with this section because they have supplied sufficient geological information determining that:

- The West Ridge Mine was designed to prevent material damage to the hydrologic balance outside the permit area.
- All potentially acid- or toxic forming strata down to and including the stratum immediately below the coal seam to be mined.
- The probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground water monitoring is necessary.
- That reclamation can be accomplished.
- Geologic structure and stratigraphy of the permit and adjacent areas how they may influence the occurrence, availability, quantity, and quality of surface and ground water.
- There are no known geologic conditions that could influence the required reclamation in a way to require collection of additional information or monitoring of other parameters.

Geologic information in the plan is based on maps and plans required as resource information for the plan, detailed site-specific information, and geologic literature and practices. The MRP includes geologic information in sufficient detail to assist in preparing the subsidence control plan.

**Findings:**

**[R645-301-622.400]:** Section 622.400 on page 6-6 of the MRP states that “*No oil and gas wells exist within the proposed permit area*”. According to Map 6-1 – Regional Geology Map, Section 3 of T.14 S. R. 13 E. depicts gas vent well sites are located in Bear Canyon. Section 622.400 will need to be updated to address the gas vent well sites in Bear Canyon.

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

**Analysis:**

A total of four maps including a regional geology map, a geologic cross section A – A’ map, a coal seam structure map and a coal seam isopach map are included in Chapter 6 of the MRP.

**Findings:**

**[R645-301-622]:** The Table of Contents – Map List on page iii of Chapter 6 indicates that the scale of each of these maps is: 1”= 1,000’. The scale shown on the maps themselves indicates a scale of 1” = 2,500’, with the exception of Map 6-1A showing a scale of 1” = 700’. The scale information on the Chapter 6 Table of Contents should either be updated or removed altogether.

**RECOMMENDATIONS:**

Midterm approval is not recommended until these minor deficiencies are corrected in the MRP.