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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

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### Division of Oil, Gas and Mining

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Outgoing  
C0070041  
#3894  
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October 18, 2011

Dave Shaver, Manager  
West Ridge Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520-0910

Subject: Change to Allow Extraction of Longwall Panel #22, Task # 3894, West Ridge Resources, Inc., West Ridge Mine, C/007/0041

Dear Mr. Shaver:

The Division has reviewed your application to add the Longwall panel #22 area to the West Ridge Mine permit area.

The Division has determined that there are some deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met, and an approval can be granted. Those deficiencies are listed as an attachment to this letter.

Each deficiency identifies its author by that author's initials in parentheses, such that your staff can directly communicate with that individual should any questions arise relative to the preparation of West Ridge Resource's response to that particular deficiency.

The plans as submitted are denied. Please resubmit the entire application.

Sincerely,

Daron R. Haddock  
Coal Program Manager

DRH/IC/sqs  
Attachment  
cc: Price Field Office  
O:\007041.WR\WG3894\DEFICIENCIES3894.DOC



## Deficiency List

Task No. 3894

Change to allow extraction of Panel #22

The members of the review team include the following individuals:

Ingrid Campbell (IC)  
Steve Christensen (SC)  
James Owen (JO)

**R645-301-322:** Please update the Map 3-4A Wildlife Map- Raptor Survey to include recent raptor survey results through the 2011 survey season. Also, please note that this map is considered confidential, and should be submitted as such. (IC)

**R645-301-320:** Please conduct random ground-truthing of the vegetation communities east of the left fork of Whitmore Canyon as suggested by Mt. Nebo Scientific on Map 3-1 General Vegetation Communities. (IC)

**R645-301.525.440.** The Division requests that the applicant submit an additional map or an amended version of Map 5-7 to include the locations of the photogrammetric subsidence monitoring points used for annual subsidence surveys. Point labels are not required. An updated map including monitoring station locations (and not just control point locations) will allow the Division to conduct a more thorough analysis of subsidence monitoring adequacy for areas that may be subsided as a result of mining Panel 22. (JO)

**R645-301.525.440; 525.490.** The Division requests that the applicant submit an additional map, at an appropriate scale, to identify the locations of the "survey elevation monitoring stations at 100' intervals along the bottom of the Right Fork drainage within the permit area". In addition, the applicant must submit a complete description of the monitoring system, i.e. instruments used for monitoring, frequency and duration of monitoring, and frequency, method, and format which survey information will be provided to the Division. (JO)

**R645-301-724.100:** The Permittee must consult with the Division of Water Rights to determine whether or not the springs/seeps identified in the *Report of Spring and Seep Survey in the Right Fork of Whitmore Canyon Area* (Petersen Hydrologic, LLC, August 3<sup>rd</sup>, 2011, Appendix 7-6B) are State Appropriated Water Rights. If it's determined that a water right is associated with any of the springs/seeps, additional water monitoring points may be warranted as well as revisions to Appendix 7-5, *Water Rights Summary* and Map 7-3, *Water Rights*. Springs RFS-6 and RFS-11 were identified as developed/fenced springs. The discharges reported in the August 3<sup>rd</sup>, 2011 Petersen report for RFS-6 and RFS-11 were 1.03 gpm and 32.5 gpm respectively. It appears that RFS-11 could potentially be the Section 5 Spring that was recently added to the water monitoring program. (SC)

**R645-301-724.200:** The Permittee must provide the historical flow data for the Left Fork of Whitmore Canyon. Historical flow data for the Right Fork of Whitmore Canyon was incorporated into the approved MRP on March 23<sup>rd</sup>, 2011 (Task ID # 3777) in Appendix 7-14.

As with the Right Fork data, the corresponding historical flow data for the Left Fork should be submitted for incorporation into the MRP as well. (SC)

**R645-301-724.100 and -724.200:** The Permittee must provide the detailed gain-loss analysis of the Right Fork of Whitmore Canyon in the area of proposed development mining. (SC)

**R645-301-724.100 and -724.200:** The Permittee must address (based upon the gain/loss analysis of the Right Fork drainage) whether groundwater monitoring wells should be constructed in order to monitor/identify potential impacts to the base flow component of the Right Fork of Whitmore Canyon. Based upon the June 23<sup>rd</sup>, 2011 stakeholder meeting, it was agreed that groundwater monitoring wells would be installed. The Permittee should address how, in the absence of monitoring wells, base flow impacts to the Right Fork would be identified. (SC)

**R645-301-728:** The baseline information deficiencies must be addressed by the Permittee prior to a determination being made by the Division that the Probable Hydrologic Consequences Determination presented in the amendment is adequate. (SC)

**R645-301-728:** Based upon the underground mine workings water monitoring program to be initiated in the Right Fork of Whitmore Canyon (See R645-301-731.210 Deficiency below), the Permittee must provide a commitment that outlines when a revision to the Probable Hydrologic Consequences (PHC) Section of the approved MRP would be initiated in the event that significant volumes of water are encountered during mining activity in the Right Fork of Whitmore Canyon. The commitment must clearly identify the volume and duration of mine-water inflows that would initiate a hydrogeologic investigation and subsequent PHC revision in the approved MRP. (SC)

**R645-301-731:** The Permittee must provide a detailed location map for the monitoring points to be established within the mine works in the Right Fork of Whitmore Canyon watershed. The map must also depict the mine plan/panel locations. (SC)

**R645-301-731:** The Permittee must revise Map 7-7, *Operational Monitoring Locations*, to depict the as-built locations for the installed/rehabilitated flumes (i.e. LF-1, LF-2, RF-1 and RF-2). (SC)

**R645-301-731.210:** The Permittee must revise Section 731.200, *Water Monitoring* of the approved MRP to reflect additional monitoring points within the mine works underlying the Right Fork of Whitmore Canyon. The text beginning on page 7-36 should be revised with a thorough discussion of the water monitoring to be conducted within the mine works under the Right Fork of Whitmore Canyon. The revisions to Section 731.200 must clearly present/provide the following:

- 1) The locations of the monitoring points and their adequacy in detecting significant inflows of water into the mine as well as in determining the location of that inflow.
- 2) Table 7-1 *Hydrologic Monitoring Protocols and Locations* must be revised to reflect the additional water monitoring points and the frequency of sampling

- 3) A table that identifies the field and laboratory data that will be collected and submitted to the Division.
- 4) The revision to the Water Monitoring section must also provide the PHC revision commitment (See R645-301-728 Deficiency).

Division staff will verify the installation of these flow meters/monitoring points prior to mining in Panel 22. (SC)

**R645-301-731.220:** The Permittee must revise Table 7-1, *Hydrologic Monitoring Protocols and Locations*. The footnotes at the bottom of the Table indicate that RF-1, LF-1 and LF-2 will replace RST-1, ST-9 and ST-10 when the flumes have been installed. It is the Division's understanding that the flumes have been installed. Table 7-1 should be revised accordingly. (SC)

**R645-301-731.220:** The Permittee must address how continuous flow measurements (as agreed to at the June 23<sup>rd</sup>, 2011 stakeholder meeting) can be obtained given the limitations of the 2' and 3' Parshall flumes located within the Left and Right Forks of Whitmore Canyon respectively. It's the Division's understanding that the continuous flow measurements are only obtainable during higher flows. The 2' Parshall flumes (sites LF-1 and LF-2) provide accurate flow measurements down to 296 gpm (or 0.66 cfs). The 3' Parshall flume provides accurate measurements down to a minimum flow rate of 433 gpm (or 0.96 cfs). Table 7-1, *Hydrologic Monitoring Protocols and Locations* indicates that "*flows are continually monitored and will be downloaded quarterly*" for surface water monitoring sites LF-1, LF-2, RF-1 and RF-2. (SC)

**R645-301-731:** The Permittee must revise Map 7-6, *Hydrologic Monitoring Map (Historical Monitoring Locations)* to depict the surface water monitoring sites that will no longer be actively monitored (i.e. ST-9, ST-10 and RST-1). (SC)