

OGMCOAL - Kinney Deficiencies

From: Steve Christensen
To: Gregory Hunt
Date: 4/28/2011 1:54 PM
Subject: Kinney Deficiencies
CC: Daron Haddock; Joe Helfrich; OGMCOAL
Attachments: Kinney_SKC_Deficiencies.doc

Greg,

Attached is my list of deficiencies. They should be pretty straight forward.

Regards,
Steve

April 28, 2011

Kinney No. 2
Hydrology Deficiencies

(R645-301-120): The Permittee must delete the Monitoring Well discussion on pages 7-12 thru 7-14. The previous technical analysis directed the Permittee to address the various water level reading discrepancies. It was the intent of the Division to simply have the well data revised to accurately reflect the characterization of the groundwater system. An explanation of the errors and confusion is not required information for an approved Mining and Reclamation Plan (MRP) (SC)

R645-301-724.100: The Permittee must provide additional baseline data to characterize the springs and seeps located within the permit boundary (specifically Eagle Springs 1, 1A, 2, 3 and Aspen Spring). The previous two technical analyses (#2989 and #3646) identified baseline deficiencies relative to the Eagle Springs. In addition, the previous technical analysis (Task ID #3646) identified a deficiency relative to the baseline data collection of Aspen Spring. The Permittee was asked to provide documentation as to how these resources were characterized (i.e. provide the frequency/dates of monitoring visits and associated data). In response, the Permittee has indicated that the water monitoring data obtained at Angle Spring (2005 and 2006) combined with the data collected at Aspen Spring (aka Eagle Pond 1 in 2008 and 2010) provides the baseline data necessary to characterize the nature of these springs/seeps (i.e. Angle Spring, Eagle Springs 1, 1A, 2 and 3) as they all discharge from the fault system within the Eagle Canyon Graben. However; no flow data has been obtained from Aspen Spring. The Permittee indicates on page 7-31 that “*it has never been possible to measure flow*” from Aspen Spring. In addition, Eagle Springs 1, 1A, 2 and 3 have not been monitored. In the absence of the baseline spring data, the Division is unable to make a finding that the springs/seeps and associated groundwater have been adequately characterized. (SC)

R645-301-724.100: The Permittee must address a statement on page 7-11. The Permittee states that Aspen Spring is “*named Eagle Pond 1 in the Spring and Seep Survey*”. The Seep and Spring Survey in Exhibit 9 does not appear to identify nor discuss Eagle Pond 1 or Aspen Spring. (SC)

R645-301-724.100: The Permittee must address why field data in Figure 17, *Field Data* for Eagle Spring (aka Miller Spring), Sulfur Spring, Aspen Spring and Res-1 has been removed from the application. The previous application’s Figure 17 contained flow, conductivity and pH field measurements for these hydrologic resources. The application currently under review does not appear to include this information. (SC)

R645-301-724.100: The Permittee must address statements on pages 7-21, 7-135 that refer to Figure 17, *Field Data* as containing field data for monitoring wells. Figure 17 contains information for Mud Creek, Miller Outlet and Angle Spring only. (SC)

R645-301-724.100: The Permittee must revise the data provided for CR 06-02 in Exhibit 10, *Surface and Ground Water Field Measurements*. Based upon the monitoring well completion diagram in Exhibit 11, *Monitoring Well Completion Details*, all depths are measured from the ground surface elevation of 8,336.7'. The diagram for CR 06-02 shows a depth to the top of the screen as 422.7'. $8,336.7' - 422.7' = 7,914'$. However, the data in Exhibit 10 shows the top of the screen to be 7,894.0'. (SC)

R645-301-724.100: The Permittee must revise the 1st sentence of paragraph three in Exhibit 20. In discussing the ephemeral drainages within the permit and adjacent area, the Permittee states, "*The reason these drainages were excluded from the baseline monitoring suite is simply because flowing water never observed in any of them during the baseline monitoring period.*" The application has been revised to document 21 field visits where flow was not observed in the 7 ephemeral drainages discussed in Exhibit 20 (See Exhibit 10 and Figure 17). The recorded field observations constitute baseline monitoring of these drainages. Additionally, the Permittee should revise the last paragraph of page 8 of Exhibit 20 to reflect the number of site visits (21 visits, not 22) documented in Figure 17 and Exhibit 10. (SC)

R645-301-725: The Permittee must address the baseline data deficiencies outlined previously in order for the Division to assess the probable cumulative hydrologic impacts from the proposed operation on ground and surface water systems. (SC)

R645-301-728: In order to accurately assess the PHC Determination provided in the application, the Permittee must first address the baseline data deficiencies outlined in the Baseline Information section. Per R645-301-728, "*The PHC determination will be based on baseline hydrologic, geologic and other information collected for the permit application*". Once the baseline deficiencies have been addressed, the Division will be able to assess the probable hydrologic consequences associated with the proposed mining activity. (SC)

R645-301-527.123, -527.200, -534.300, -742.323 and -742.423.1: The Permittee must provide the detailed design information for the two post-mining land use roads. Upon review of the application, it does not appear that the required design information for the post mining land use roads depicted on Maps 29 and 29A is provided. It appears the application only provides the design information/discussion for primary roads P1 through P7 in section R645-301-527. It is noted that diversion ditches UDD-1 and UDD-2 (directly adjacent to eastern most post-mining land use road) have been sized for the 100-year, 6-hour event as required for a permanent diversion. Road profiles are provided for roads P1 through P7 on Maps 20-22. It does not appear that a road profile has been generated for the post-mining land use roads. Additionally, any permanent diversions that may be constructed would need to be designed to adequately handle the runoff generated from a 100-year, 6-hour rainfall event. (SC)

R645-301-731.210 The Permittee first address the deficiencies relative to groundwater baseline data before the Division can make a finding that the proposed operational phase groundwater monitoring plan meets the requirements of the State of Utah R645-Coal Mining Rules. Per R645-301-731.211, the groundwater-monitoring plan must be based upon the PHC determination as well as all baseline hydrologic and geologic information. (SC)

R645-301- 531, -742.300, -760: The Permittee must revise the 4th paragraph on page 7-126. The application indicates that ditch DE-2 is a component of the interim drainage control. However; Map 29 does not depict DE-2 as part of the interim drainage control. It appears that the text incorrectly references ditch DE-2 rather than ditch DE-4. (SC)