

0043

**From:** Steve Christensen  
**To:** vmiller@archcoal.com  
**CC:** Jim Smith; OGMCOAL  
**Date:** 10/30/2008 10:52 AM  
**Subject:** Dugout Degas G-22 Deficiencies  
**Place:** OGMCOAL  
**Attachments:** WG3068\_Draft\_Deficiencies.doc

*Outgoing*  
*C/007/0039*  
*#3068*

*Q*

Vicky,

The attached document contains all the deficiencies as of today (October 30<sup>th</sup>, 2008). The only person whose deficiencies are not listed are Joe Helfrich's. He's been out of town for the last two days, but when I last spoke to him, he hadn't identified any deficiencies. I'll follow up with him on Monday.

Have a great weekend. Steve

# **Dugout Mine (C/007/0039)**

## **Degas Well G-22 and Access Road**

### **Draft Deficiencies**

April Abate (AA)  
Priscilla Burton (PB)  
Steve Christensen (SC)  
David Darby (DD)  
Joe Helfrich (JH)  
Wayne Western (WW)

**R645-301-763:** The Permittee should provide some discussion as to the maintenance and removal of applicable siltation structures in the disturbed area during the reclamation phase of the project. (AA)

**R645-301-114,** In 2007, Federal Lease U-07064-027821 was increased by 40 acres to include the NW ¼ NW ¼ of Sec. 21 T. 13 S., R. 13 E. A BLM Lease modification document was not available for inclusion into the MRP, in September 2007 when the Division approved the amendment increasing the permit acreage, but the Permittee committed to update the right of entry information in Appendix 1-1 of the MRP when the modified BLM Lease U-07064-027821 was received (see **R645-301-114.100**). Prior to approval of this emergency action, this information must be included in the MRP. (PB)

**R645-301-222,** The soil survey lacks an adequate soil survey map for Site G-22 and other sites included in the survey. The site specific maps provided in Appendix C are not useful in determining the extent of soil map units. The enlarged sites maps are distorted and not legible. The soils map must be provided on a scale no smaller than 1: 6,000 showing all appropriate USGS symbols (topographic lines, existing pads, roads, and individual soil pit locations, etc.). • Appendix C contains the laboratory reports. Laboratory reports have been retyped and do not include the name of the laboratory or the date of the analysis. Laboratory reports must be the original, to ensure that no typing errors of data occur and to verify the date of analysis and laboratory contact information. Please provide the original laboratory reports. Laboratory information for horizon B2 at site SP11 is missing and might be found on the original lab reports. • Appendix A of The soil survey does not provide adequate information from the Munsell Color chart to decode the dry color. [The moist color must also be given in Munsell notation.] All future soil surveys must include complete Munsell notation. This information would have been useful during this review, since the survey refers to contrasting soil color within horizons of SP10. The soil survey lacks an adequate soil survey map for Site G-22 and other sites included in the survey. The site specific maps provided in Appendix C are not useful in determining the extent of soil map units. The enlarged sites maps are distorted and not legible. The soils map must be provided on a scale no smaller than 1: 6,000 showing all appropriate USGS symbols (topographic lines, existing pads, roads, and individual soil pit locations, etc.).•It appears that field texture was not reported, since

the profile descriptions listed on the soil profile sheets in Appendix A report the information collected by the laboratory for texture, including the notation "nd" for "not detected". Ordinarily texture is assessed in the field and reported on the field profile sheets and the original field sheets are provided in the survey. Original field sheets are requested with all future surveys. •Soil profiles SP 4 - 9 are not included in this emergency review. Site 21 is not included in this emergency review and information pertaining to the soil survey, especially the site map for Site 21 will not be not approved and should be removed from the application. (PB)

**R645-301-121.100 and R645-301-230**, The total topsoil removal volume is reported incorrectly for site G-22 on Table 2-1 and in Appendix 2-1, Attachment 2-2, Pad G-22 Summary. Only the access road volume has been reported in these two locations. The correct total volume for access road and pad is 2,103 cu yds as listed in the Topsoil Volume Calculations Table of Attach. 2-2 and as noted in the bonding calculations (App. 5-6). Please make the necessary corrections to Table 2-1 and Appendix 2-1, Attachment 2-2, Pad G-22 Summary. (PB)

**R645-301-231.400**, For site G-22 and access road, the topsoil stockpile dimensions are calculated in Attach 2-2 and reported in Table 2-2 as 85 ft. length X 65 ft. width X 25 ft high, with slopes of 1.25 h: 1v. A pile of this description would have the capacity for 5,115 cu yds, whereas only 2,103 cu yds will be salvaged. A more realistic scenario would describe a pile with the same base, but a 12 ft. height. There is no need for 1.25h:1v slopes. The possible storage locations described in Section 231.100 as either pad G-17 or G-16, both are level pads. For the most effective erosion control protection through interim reclamation, the slopes should not exceed 2h:1v. The plan should be modified accordingly. (PB)

**R645-301-724-** The Permittee must provide some discussion or characterization as to the ground and surface water resources in the area of proposed degas well G-22 and its access road. On page 7-3 of the application, the Permittee provides references to Sections 724.100 and 724.200 of the approved MRP for ground and surface water information respectively. Upon review of the approved MRP, it's unclear as to whether the information is adequate to describe the hydrologic characteristics of the proposed project area. If the Permittee asserts that the approved MRP provides adequate baseline information for the proposed project area and associated drainages, a citation should be provided that includes a page number where these drainages and hydrologic resources are discussed. (SC)

Division staff conducted a field inspection of the proposed location on October 23<sup>rd</sup>, 2008. It was observed that defined drainage channels are located on either side of the proposed pad location (essentially east and west of the pad). In addition, the alignment of the proposed access road will cross the western drainage and require the installation of a culvert in order to safely divert the water and prevent road failure. In order for the Division to find that the baseline requirements have been met, the

application must provide some characterization as to the nature of these drainages (i.e. water quality and quantity). (SC)

**R645-301-728-** As the PHC is based upon baseline hydrologic information, the Permittee must first address the baseline deficiencies as outlined herein before the Division can make a finding that the PHC requirements have been met. Additionally, the Permittee should address the culvert and road crossing of the drainage located approximately 350' west of the drill pad. On page 7-12 of the application, the application states, "No additional or new perennial or intermittent stream channel alterations are anticipated as part of the project". The proposed road alignment will cross a defined drainage channel. The PHC (based on the baseline information) should provide some discussion as to the nature of the drainage to be diverted and crossed by the access road and the potential for impacts to that drainage. (SC)

**R645-301-731.600-** The Permittee must characterize the flow characteristics/nature of the two drainages located on the east and west side of the proposed degas pad (i.e. ephemeral, intermittent or perennial). R645-301-731.600 prohibits surface disturbance within 100 feet of a perennial or intermittent stream, unless authorized by the Division. (SC)

**R645-301-732-** The Permittee must revise sections of the application as well as sections of the approved Methane Degasification Amendment so as to eliminate any confusion as to how the sediment control structures will be maintained at the methane degasification sites and their associated access roads.

During a field inspection conducted by Division representatives, some confusion arose as to what the maintenance and repair commitments were for the sediment control measures employed at the AMV access road to degas pads G-18 and G-31 (i.e. the silt fence). As a result, the Permittee must clarify and provide further commitments regarding the utilization and maintenance of the sediment control measures to be implemented at all existing and future degas wells and their associated access roads.

There are numerous instances where the application and approved Methane Degasification Amendment discuss the utilization of sediment controls "during construction" only. This is misleading. The Methane Degasification Amendment should make it clear that the sediment controls are to remain in place and remain functional during construction, operation and reclamation of the degas wells and associated access roads.

In addition, the Permittee should provide a commitment to periodically inspect the sediment control measures at the degas sites and associated access roads. Inspections of the sediment controls should also be performed after major precipitation events. Based upon those inspections, the sediment controls will be repaired and accumulated sediment removed as needed in a timely fashion in order to maintain the functionality and effectiveness of the sediment controls.

The Permittee should also commit to bi-annual inspections with Division staff to assess the function of the sediment controls at all degas pads and associated access roads. The bi-annual inspections will occur as soon as conditions allow in the spring/early summer and once again in the fall before weather conditions impair access to the site. Based on those inspections, the Permittee must commit to perform maintenance/repair of the sediment controls in a timely fashion following the spring inspection and prior to onset of winter following the fall inspection. Additionally, the discussion should include the commitment to install the sediment controls prior to beginning any construction.

The following sections of the application need to be revised as outlined above:

- Page 5-11: The application states that silt fences will be placed at the toe of fill slopes *during construction*.
- Page 5-13: The application discusses sediment controls under Section 532.
- Page 7-8: The 3<sup>rd</sup> paragraph discusses silt fence installation “during construction” only.
- Page 7-11: The 3<sup>rd</sup> complete paragraph discusses silt fence installation “during construction” only.
- Page 7-11: The 4<sup>th</sup> complete paragraph should provide discussion as to the silt fence to be utilized with the access road as well as the drill pad.
- Page 7-12: The first sentence states, “Where necessary, silt fencing will be used during reclamation activities to contain loose soils and reduce sediment laden runoff.” The Permittee should amend this sentence so it’s clear that the locations of where the silt fence will be ‘necessary’ will be done in consultation with the Division.
- Page 7-14: The first paragraph discusses the inspection and maintenance of the silt fence and/or straw bale dikes. This section should be revised with the aforementioned clarifications and commitments.
- Page 7-15: Section 732 discusses Sediment Control Measures and should be revised as outlined above.
- Page 7-19: Section 742.200 discusses siltation structures and should be revised as outlined above.
- Page 7-21: Section 752 discusses sediment control measures and should be revised as outlined above. (SC)

**R645-301-521.170**, The Permittee must provide the Division with a map that shows the network of roads used to access the drill holes. Specially, the Permittee must show how to access each drill hole and what sections of the roads will and will not be reclaimed. (WW)