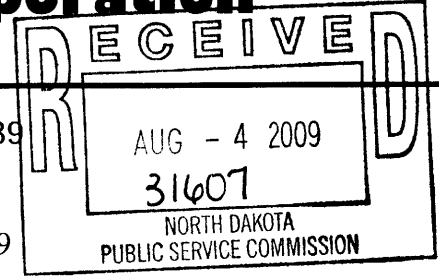


Dakota Westmoreland Corporation



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August 4, 2009

Mr. James R. Deutsch
Director, Reclamation Division
Public Service Commission
600 E Boulevard Ave, Dept. 408
Bismarck ND 58505-0480

Re: Revision No. 25, KRSB-8802
Technical Deficiency Responses

FROM DIRECTOR - RECLAMATION DIV.

Date: _____

Action: _____

Info. Only: _____

Info & File: _____

The following information is submitted in response to the technical questions dated May 12, 2009. Individual comments are set forth below followed by Dakota Westmoreland's responses and a listing of revised information.

Section 1.4 - Business Entity Information

1. If necessary, please update the ownership and control information in Section 1.4 to reflect the most recent changes in officers and directors. (DKM)
 - Narrative 1.4 has been updated with the most recent ownership and control information. Narrative 1.5 has also been updated.
2. Pages 1.4.16 and 1.4.39 plus Exhibit 1.4.1 indicate that the USA owns the coal in the SE¼ of Section 14; however, pages 1.4.30 and 1.4.36 list Jonathan W. A. Liebelt. Please explain or make the necessary corrections. (SAS)
 - After a county court house review it was found that the Jonathan W.A. Liebelt Estate owns the coal in the SE¼ of Section 14. Exhibit 1.4.1 and pages 1.4.16 and 1.4.39 have been updated to show this change.

Section 2.2 - Surface Water Hydrology - Inventory and Monitoring Plan

3. Please make the following corrections to the list of ponds in the discussion of surface water discharge from the permit area on page 2.2.3: (1) Remove Pond 63 from the list of ponds because it was reclaimed in 2007; and, (2) Add Pond 71 to the list of ponds because it is still in operation and is assigned an NDPDES discharge point in an active mining area. (WTG)
 - The narrative to Section 2.2 has been updated. In addition to your recommendation above, ponds 41, 50 and 64 were also removed from the narrative. All changes reflect the current status of DWC's NDPDES permit.

4. Please make the following updates to Exhibit 2.2.7, the Surface Water Monitoring Map, with regard to NDPDES points and watershed boundaries: (1) Please remove the discharge point notations for sedimentation Ponds 41, 63, and 64 because the discharge points were released from the NDPDES permit on July 12, 2002; (2) Please remove the discharge point notations for sedimentation Ponds 50 and 69 because they have never been assigned a discharge point for the NDPDES permit; and, (3) Please depict the watersheds for Ponds 70 and 71 consistent with those shown on Exhibit 3.2.1, and add a discharge point notation for Pond 71 because it was assigned a discharge point for the NDPDES permit on March 6, 2006. (WTG)
 - Exhibit 2.2.7 has been updated with the following changes: (1 and 2) Ponds 41, 40, 50, 63, 64, and 69 were removed from the Exhibit to match the current status of DWC's NDPDES permit; (3) both Exhibits 3.2.1 and Exhibit 2.2.7 were updated to include the same post-mine watershed boundaries, and Pond 71 was added as a discharge point.

5. Please address the inconsistencies on page 2.2.5 for annually sampling the three intermittent stream Sites 09DDD-E/ST, 16DDA-E/ST, 20AAD-E/ST and perennial stream Site 25DCC-E/ST after a runoff event during the fall, versus sampling the stream sites annually during low base flows in the fall. Also, please address the limited sampling data collected during the past five years. As shown on the 2008 fourth quarter NDPDES discharge monitoring report, sampling for all four sites has been attempted in late November or December since 2004 which has resulted in sampling the intermittent sites only two times since 2004. (WTG)
 - The "stream" sites are not sampled during low base flows in the fall; rather, the "spring" sites are sampled annually during low base flows in the fall. Although this is correctly stated within the narrative on Section 2.2, you may have inadvertently seen "stream" within the sentence. Attempts will be made to collect samples earlier in the fall for the intermittent streams.

6. Please update the Probable Hydrologic Consequences section to describe how the post-mine topography proposed in Revision 25 will change watersheds, and how the proposed changes will affect flow of intermittent tributary streams to Brush and Otter Creeks and the undisturbed wetland in the southeast corner of Section 19. For example, it appears that the watershed for the intermittent tributary to Brush Creek that is presently controlled by temporary Pond 70 will increase significantly. As shown on attached Figure 1 near the end of this letter, the pre-mine watershed of Pond 70 was about 480 acres, but it appears that the watershed will increase to about 700 acres based on the post-mine topography shown by Exhibit 3.5.3. Also, address any changes to the watershed of the undisturbed wetland located in the southeast corner of Section 19. The update should also include a discussion of how the post-mining watersheds have been designed to prevent any material damage to the hydrologic balance outside the permit area, as required by NDAC 69-05.2-08-04(3) and NDAC 69-05.2-16-01(1). (WTG/MDB)
 - The effects of the updated post-mine topography of Revision 25 are negligible in relation to Brush Creek and Otter Creek's role as intermittent streams as well as their watershed size in general. These are very intermittent drainages that only react to runoff events; thus, the perennial nature of Brush and Otter Creeks will not be affected materially. The undisturbed wetland in the southeast corner of Section 19 will also maintain its ability to replenish itself from inflow in the post-mining sense. The undisturbed wetland in the

southeast corner of Section 19 had a premine watershed of 88 acres. After mining is completed in the area, the watershed acreage decreased to 72 acres. Currently, the undisturbed wetland is full of water and the current status is reflected in the post-mining topography contours. Pond 70's watershed increased in size from 480 acres premine to 565 acres post-mine. In reference to narrative 2.2, Brush Creek's watershed size covers 33 square miles. The increase in watershed size going to Pond 70 is a negligible percentage at 0.4% of the Brush Creek's total watershed.

Section 2.3 - Ground Water Hydrology

7. The narrative response and update of Table 2.3.2 in response to Midterm Item No. 11 is adequate; however, the beginning of the paragraph on page 2.3.24 indicates there are no water supply wells screened in the Spaer interval within the permit, adjacent or general areas. Although we do not dispute that statement, the interpretation of the Aquifer Material column of Table 2.3.2 should be more specifically labeled, so that those screened intervals or zones that are generically labeled as "coal" should have the named coal seam listed for future reference. (BEB)
 - Table 2.3.2 within the narrative of Section 2.3 has been updated per your recommendation to specifically label the coal zone in which a well was drilled.
8. It would be beneficial if the legend data map text, borders, croplines, etc. of the Exhibits could all be bolded. Also Exhibit 2.3.6 has a green line (assumed to be watershed delineation) on the right side of the map that probably doesn't need to be there. Please consider addressing these issues. (BEB)
 - Exhibits 2.3.1, 2.3.4, 2.3.5, 2.3.6, 2.3.7, and 2.3.8 have been updated to include a more legible title block, thickened croplines and borders. Also, the raster image was trimmed so that the title blocks would be easier to read. The green line on the right side of Exhibit 2.3.6 was changed to red to match the legend as a coal cropline.
9. As a reminder to DWC and as was discussed during our August 5, 2008 meeting, please incorporate language into the ground water monitoring plan of Permit KRSB-8802 that outlines the location details and an estimated timeline for installation of post-mining ground water monitoring wells within the Charlie and Orange Pit areas following reclamation. (BEB)
 - Based on the discussion from the August 5, 2008, meeting, the PSC and DWC agreed that no new monitoring wells are needed in the Orange and Charlie pits. This discussion was also verified by B. Beechie via phone on June 30, 2009. DWC installed monitoring wells 2020 through 2029 in 2008 in coordination with the PSC. Essentially, as mining ends in permit KRSB-8802, the current affected area is surrounded by a mix of spoil wells and coal wells on all sides. Page 39 of the narrative was changed with Revision 24 to summarize the plan details. In addition, B. Beechie agreed via phone on June 20, 2009, that the wells will be of limited use given the number of wells in close proximity to the final pit area. However, Exhibit 2.3.1 was updated to include the new wells installed in 2008. This information now matches the information presented in permit KRSB-8603.

Section 2.7 - Land Use

10. Please make the following corrections to the permanent pond table on page 2.7.4: (1) Pond 11 is located in the NE $\frac{1}{4}$ of Section 10, rather than the SE $\frac{1}{4}$; and, (2) Pond 30 is located in the SW $\frac{1}{4}$ of Section 11, rather than the SE $\frac{1}{4}$ of Section 10. (WTG)

➤ The table corrections have been carried out.

11. The first paragraph on page 2.7.5 has been revised to indicate that the reclaimed wetland will no longer also serve as a water source for the tame pastureland. The paragraph states that cattle will use the water source inland located south of the county road, but we understand that the underpass in the road was removed due to potential runoff events from Pond 70. Please review and address in the narrative how water will be supplied to the tame pastureland in the S $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 24. If the cattle underpass in the road was removed because of mining activities, then a replacement water source will need to be provided. (GAW)

➤ The bovine underpass was replaced with a new and improved version with dimensions adequate to allow cattle to access water to the south as the old one did. We are not aware of any connection between the underpass replacement and pond 70.

12. Follow-up to Midterm Item No. 13: DWC is proposing to change the post-mine land use of lands disturbed prior to 1969 from hayland and fish and wildlife grassland habitat to cropland in the S $\frac{1}{2}$ of Section 12. In addition, the post-mining land use of a portion of the area in the SE $\frac{1}{4}$ of Section 12 is being changed from hayland to cropland. Please update the permit with information showing that this land is suitable as cropland, i.e. slopes and topsoil and subsoil respread depths, and include updated landowner preference statements, if necessary. (GAW)

➤ The narrative of Section 2.7 has been revised to include a reference to the cropland use and rationale for the land use change. The cropland use was implemented in 1993 on almost all of the field acreage and the minor remaining acreage a few years later. Although no soil salvage was required on this area, some soil may be present. Some of the field gradients do not favor cropping. However, a history of cropping annually has been established over more than a decade and no change of plans is apparent. Given the cropping history, a change of the postmining land use is being proposed. No change to preference statements appears necessary.

Section 3.1 - General Mining Plan

13. Please update the coal production schedule, Exhibit 3.1.1 - Extended Mine Plan and 5 Year Subareas, and Exhibit 3.1.2 - Pit Sequence and History of Mining, to reflect that the 1570 dragline will now be operating in the Charlie Pit longer than previously anticipated. (MDB/WTG)

➤ Exhibit 3.1.1 has been updated to show the projected mining in the Charlie pit area. The projected pit sequence for Permit 8603 has been updated also. Exhibit 3.1.2 has also been updated.

Section 3.2 - Water Management Plan

14. Please update Exhibit 3.2.1 with the most recent topography. (WTG)
 - The correction has been made.
15. Please depict the quarter and section line boundaries on Exhibit 3.2.4 so that one can more easily determine the location of the proposed recreated wetlands and identify the watershed boundary for each wetland. (GAW)
 - The correction has been made and the watershed boundaries have been delineated on the map.
16. Please include calculations showing that the watershed of the wetland located in the southeast corner of Section 19 is of adequate size for the wetland to function properly. This can be accomplished by annual runoff calculations for both pre-mine and post-mine watershed conditions. Please identify steps to mitigate watershed size changes if they have been changed by more than 10 percent to comply with NDAC 69-05.2-16-01(1). (GAW/MDB)
 - You are correct in noting that the overall watershed size for the undisturbed wetland decreased. However, the annual yield calculation for the wetland in Narrative 3.2 shows sufficient runoff still going to the wetland in a “normal year”. The past several years have not qualified as normal runoff years, but below average. The overall wetland encompasses 3.3 acres and the main pool area covers roughly 1.2 acres. Pre-mine the annual yield was 3.4 acre-feet and the post-mine annual yield was 2.8 acre-feet. The post-mine annual yield balance was 1.6 acre-feet. So the undisturbed wetland will still function as a wetland with room to spare on a “normal year”. The annual yield calculations for the undisturbed wetland in the SE corner of Section 19 have been added do the narrative.
17. Table 3.8.6 indicates that Pond 52 will be reclaimed; however, in the pond summary it is listed as a permanent pond. Please correct the inconsistency. (MSK)
 - Pond 52 is a permanent pond. Pond 52 will be removed from the reclamation liability in Table 3.8.
18. With the post-mine watershed of Pond 70 increasing in size (see Figure 1), please review and update the runoff calculations for Pond 70 to ensure that it is adequately sized. This pond is currently designed for a 315 acre watershed. If the pond is no longer capable of storing the runoff from a 10-year, 24-hour precipitation event, or if a spillway has to be modified, please include the appropriate design plans. (DKM)
 - The post-mine watershed of Pond 70 has increased to 565 acres. However in a fully vegetated state with a CN of 66 Pond 70 will handle the 10-year 24 precipitation event. The spillway is designed sufficiently to handle the peak discharge from the 25 year-6 hour storm event. During the reclamation process of the Charlie Pit, there will always be areas to trap runoff. The reclamation efforts will go from west to east until grade is achieved on the leveled spoil. A method very similar to what we are doing in the west Orange pit will

be used to control all the excess runoff going to Pond 70. Once everything is reclaimed, the goal is that the field conditions will resemble the CN of 66 which has been historical for our adjacent alfalfa fields on reclaim in Sections 13, 18, and 19.

Section 3.5 - Backfilling and Grading

19. Please update Exhibit 3.5.3, Post-Mining Topography, to address the following:

- a. Please label the contour elevations on the map so they are clearly legible.
 - The correction has been made.
- b. Please depict the topographic disturbance boundary (all areas where the topography has been changed due to mining) for all areas within Permit KRSB-8802.
 - Exhibit 3.4.1 now has the disturbance boundary added to it. Adding the entire 8802 disturbance boundary to Exhibit 3.5.3 would require a much larger map in plan view and would take away from what the final pit reclamation is trying to show (by decreasing the scale of the contours).
- c. Please update the disturbance boundary in Section 19 to reflect the southward extension of the Charlie Pit beyond what was planned in Revision 24.
 - The correction has been made.
- d. Please remove the contours associated with the SPGM stockpiles in the N½ of Section 19 as these stockpiles will be removed and will not be part of the post-mine topography of the area.
 - The correction has been made.
- e. Numerous post-mine topo contour lines converge near the southeast corner of Section 19 making it difficult to determine how the post-mine topography ties into the adjacent undisturbed topography. Please clarify the topography in this area. (GAW/MDB)
 - The 2080 contour is the one to note. You will see that the county road leading to the Darrel Herman farmstead distorts the contours. The correction has been made per your request.

20. Due to concerns with the proposed post-mine topography of the final pit area in Sections 19 and 24, please address the following items:

- a. To the extent possible, please reduce the slope of the highwall in Sections 19 and 24 to less than 6% to support the intended post-mine land use of cropland. As currently proposed, some long highwall slopes are about 8 percent.
 - Exhibit 3.5.3 has been revised to reflect slopes of 6 percent or less.

- b. Please provide a comparison of the pre- and post-mine acreages by slope groups for the SE $\frac{1}{4}$ and SW $\frac{1}{4}$ of Section 19. There was very little pre-mining acreage with slopes exceeding 6% for these tracts; however, there appears to be a significant increase in the acreage with slopes greater than 6%.
 - Exhibit 3.5.3 has been revised to reflect slopes of 6 percent or less. A slope comparison has been completed and discussed with the PSC at an informal conference held on July 16, 2009. A phone conversation with Mike Berg on July 22, 2009 confirmed that this concern has been addressed.
- c. The "pit floor area" in Sections 19 and 24 is extremely flat, having an average slope of less than 0.5% over much of the area. Consideration should be given to modifying the post-mining topography to increase the drainageway slope to about 1%, or if that is not possible, to construct a better defined drainage channel through this area. Considering the flat gradient of this area, please discuss what measures will be taken to ensure positive gradient and to prevent differential settling from occurring.
 - A drainageway slope of 1% instead of 0.5% would increase the drainage floor about 25 feet in the SE $\frac{1}{4}$ of Section 19. This type of grade change is not possible. The "fill" required for such a plan is not available. A slope of 0.5% can be constructed with success. Any problems can and will be fixed.
- d. If necessary based on the PHC assessment, please revise the topography to ensure that the undisturbed wetland located in the southeast corner of Section 19 will have a watershed of adequate size.
 - The watershed will be reduced by the post-mining topography. There is no feasible method to maintain the pre-mining watershed acreage. The watershed area will be reduced by 18%. The proposed post-mining watershed has been in place for the last several years. The wetland in question has had sufficient inflows for the last several years to function as it is intended.
- e. Please indicate what measures will be taken to ensure that the undisturbed wetland located in the southeast corner of Section 19 will not drain out to the northwest into the final pit area under the current grading plan.
 - A field survey conducted on July 22, 2009 of the wetland perimeter shows that the wetland will drain into the NE $\frac{1}{4}$ of Section 30 before it would drain into the final pit area.
- f. Consideration should be given to extending the watershed/drainage boundary of the northeast watershed of the delayed reclamation area (SE $\frac{1}{4}$ NE $\frac{1}{4}$ and NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 19) further to the southwest.
 - Every effort was made to extend the drainage. The post-mining drainage in the NW $\frac{1}{4}$ of Section 20 has grades that are higher than the drainage going to Pond #70. This

becomes a volume issue; having a higher drainage increases the volumes required to reclaim the mined lands in Section 19.

- g. The long uniform sideslopes proposed in Section 19 and 24 need to be broken up. This can be accomplished by incorporating secondary drainages, additional backsloping into adjacent reclaimed and undisturbed areas, carrying the sideslopes out further, breaking the slopes up with terraces, etc. (GAW, MDB, DKM)
 - The slopes have been broken up as shown on Exhibit 3.5.3. The slopes have been reduced because of the extended backslopes which have been extended out as far as possible, as shown on Exhibit 3.5.3.

Section 3.6 - Revegetation Plan

- 21. The discussion on page 3.6.9 concerning the "...primary control area..." depicted on Exhibit 3.6.2a seems to indicate that this control area will be used mine wide. This is **not** the case. The approval given for use of this control area was for only cropland areas being farmed by the same operator. Please revise the annual cropland discussion to clarify this. (SAS)
 - This appears to be the same issue that was raised during the pre-renewal review associated with revision No. 22. That review raised concerns with respect to the lack of language in the revegetation plan that would meet the specificity of the control area requirements, i.e., that it could only be used when the "management (especially the operator and crop) is the same..." We responded by extracting language from the vegetation guidelines and adding it to page 3.6.9 specifying that the control area management would be equal in effect to that on any reclaimed tract it is used to represent. This proposal was later approved. While adhering to these restrictions, we hope to be able to influence cropping operations throughout the permit area so that "effective equivalence" of management on the control area and reclaimed tracts during final bond release data collection periods can be achieved on many ownerships. Of course, the Heth properties will be an exception, having their own control area as proposed herein.
- 22. Page 3.6.9 refers to a second control area supposedly depicted on Exhibit 3.6.2a to be used for the Heth properties. This area currently is not depicted. Please show this control area on the exhibit. (SAS)
 - The Heth control area has been moved to new Exhibit 3.6.2b. The text has been modified accordingly.

Section 3.7 - Time Schedules

- 23. Please update Table 3.7.1 and the appropriate narrative for the Orange and Charlie Pits to reflect the variances or delays needed to reflect the delayed reclamation of these final pit areas. The delayed reclamation areas should be clearly identified and the appropriate justification to support the delayed reclamation must be provided. An estimated schedule for completing reclamation of all delayed reclamation areas must also be provided. (SAS & DKM)

- Narrative 3.7 and Table 3.7.1 have been updated with justifications to reflect the delayed reclamation of these final pit areas. The updates are highlighted in yellow.

Section 3.8 - Reclamation Cost Estimates and Performance Bond

24. The reclamation cost estimate was not reviewed at this time and will be reviewed once it is determined that the post-mine topography is acceptable. No updates are required to this section at this time, but the January 2009 Variable Cost updates may be used in calculating the bond amount when updates are required. (MDB)

- Narrative 3.8 was updated with the July 2009 edition of Policy Memorandum 16. The final pit yardage and push distances have been updated to reflect the stopping of mining at Charlie pit #57 instead of #55. Exhibits 3.8.1 and 3.8.2 have been updated to show this as well.

The PSC received letters from Darell Herman expressing his concerns regarding the post-mining topography and elevation changes in the W½ of Section 19 and requesting an informal conference on this application. We will be contacting Mr. Herman to discuss his concerns prior to scheduling the informal conference. (ongoing)

Two letters were received from Dennis Neuberger on the application. Please address his concerns about the land use for the 1.5 acres that he is concerned about.

- After considering Mr. Neuberger's concerns about changing the land use of a small acreage in the SW corner of the S½ of Section 7 and researching farm program ramifications, we maintain that there are several reasons why the change is practical and the concerns are unwarranted. We are also concerned about having to abide by sodbreaking requirements for this cropland area. This site will not be respread and we think it would be prudent to maintain the sod but unfortunately, there seems to be no exemption for situations where topsoil will not be respread. Further, we do not wish to pursue a sodbreaking variance from the landowner. Nevertheless, we have returned the 2.6-acre parcel to a postmining land use of cropland.

If you have any questions, feel free to call me at extension 208.

Sincerely,



Jeff P. Frohlich
Manager,
Engineering and Environmental

plg
Enclosures