



Dakota Westmoreland Corporation - *Beulah Mine*
A Subsidiary of WESTMORELAND COAL COMPANY

June 2, 2021

Dean K. Moos
Director Reclamation Division
North Dakota Public Service Commission
600 E Boulevard Ave, Dept. 408
Bismarck, ND 58505-0480

Dear Mr. Moos:

Attached are the responses to the third technical review of the application for **Revision 32** to permit KNSB-8603. The permit has been electronically copied (via *Dropbox*) for your review. Please feel free to contact me should you have any questions.

Sincerely,

Jesse Noel, P.E.
Director, Environmental & Regulatory
U.S. Operations
Westmoreland Mining LLC

Cc: Scott Aberle

30 RC-18-431 Filed 06/02/2021 Pages: 5
Company response to third technical review letter
Dakota Westmoreland Corporation
Jesse Noel



June 2, 2021

**Comment/Response to May 25, 2021 PSC Letter
Technical Review of Revision 32**

Table of Contents

1. Please update the Table of Contents to include Exhibits 3.2.70 and 3.2.71. (GAW)

Response: The Table of Contents now includes reference to Exhibits 3.2.70 and 3.2.71

Section 3.2 – Water Management Plan

2. Follow-up to Item No. 16 of our technical review letter dated March 16, 2021. Please revise the Pond 85 narrative on page 12 of Section 3.2 to indicate that the pond P85 Sump will be retained until Sediment Ponds 112 and 113 have been constructed. (GAW)

Response: Verbiage was added to the Narrative for the Pond 85 Sump.

3. Follow-up to Item No. 16 of our technical review letter dated March 16, 2021. Please depict the Pond P85 Sump on the Water Management Plan Map, Exhibit 3.2.1 since this feature needs to be retained until sediment ponds P112 and P113 have been constructed. (GAW)

Response: The Pond 85 Sump was added to Exhibit 3.2.1.

Section 3.5 – Backfilling and Grading

4. Follow-up to Item No. 25 of our technical review letter dated March 16, 2021. The Reclamation Division continues to have concerns about whether the approved post mining topography can be achieved in the Gold Pit since the volumetrics provided by WBM show a 777,250 cubic yard deficit. The volumetric analysis provided by DWC indicates a total cut of 4,679,957 yd³ and fill of 5,457,208 yd³ (net -777,251 yd³) is needed to achieve post mine topography in the Gold Pit area. This calculation included approximately 550 acres (portions of Sections 15, 21, 22 & 23), used a cut swell factor of 1.10, and included all available material within the 550 acres (spoil and SPGM). Using the same parameters as DWC, the PSC calculations show that approximately 751,000 yd³ of total material is needed to reach the post mine topography within this area. However, approximately 190 of the 550 acres used in WBM's calculations have already been reclaimed (namely Section 15, the NW¹/₄ of Section 22, and the NE¹/₄NE¹/₄ of Section 21) and should be excluded from the calculation unless DWC is proposing to re-affect these areas. Our calculations using only the 360 acres of un-reclaimed area in the Gold Pit in Sections 22 and 23, a cut swell factor of 1.10, and all available material in Sections 22 and 23 (spoil and SPGM) show that approximately 2.3 million cubic yards of total material (both spoil and SPGM) is needed in this area. Please revise the Post Mining Topography map, Exhibit 3.5.3, such that the cut and fill volumetrics in the Gold Pit are balanced. Post mining elevations should only be lowered on areas of coal removal that have not been reclaimed and a spoil swell factor should not be re-applied to spoil that is rehandled. (SMN/GAW)

Response: Using the boundary provided by PSC staff for the Gold Pit Area, and excluding all reclaimed areas within the boundary, there are a total of 411 acres to be reclaimed. In order to achieve a better earthwork balance, the post-mine topography within the majority of this area has been lowered by 2.5 feet. No spoil swell factor was applied. Thus, Exhibits 3.5.3 (post-mine topography) and 3.5.4b (post-mine slope contours) have been updated accordingly. Using the current topography versus the postmining topography, there are 4.772 million cut cubic yards of material and 4.808 million fill cubic yards of material.

5. Follow-up to Item No. 25 of our technical review letter dated March 16, 2021. Correspondence submitted with the 2020 Annual Mine Map indicates that DWC intends to remove SPGM from approximately 29.4 acres of land adjacent the Gold Pit highwall in 2021. Please clarify if DWC is intending to back slope the highwall and revise the Post Mining Topography map, Exhibit 3.5.3, accordingly if DWC intends to alter the topography along the highwall. (GAW)

Response: The statement will be removed from the 2020 Annual Mine Map when we receive comments back from the PSC. A majority of the highwall material is unusable because of its moisture content and inability to access the material with Mine equipment.

Section 3.9 – Reclamation Cost Estimates and Performance Bond

6. The November 2020 variable costs in Policy Memorandum No. 16 to Mine Operators were not used to calculate the reclamation costs in Table 3.9.11, Worst Case and Total Bond Summary. Please update the table using the 2020 updated variable costs. (SMN/GAW)

Response: The 2020 variable costs have been updated in the Narrative.

7. In Table 3.9.11, Worst Case and Total Bond Summary, please revise the total dozer hours to reflect the total hours shown in Table 3.9.2, Dozer Production Estimate, and then update the associated total and cumulative costs accordingly. (SMN/GAW)

Response: The amount of completed work in the Gold Pit (the bottom line of Table 3.9.2) was inadvertently left off the Table. The line was included and now matches the totals of Table 3.9.11.

8. Follow-up to Item No. 47 of our technical review letter dated March 16, 2021. Please revise Exhibit 3.9.2, Worst Case Bond Map, to show where SPGM will need to be respread in the worst-case bond scenario. The Reclamation Division can provide you with an AutoCAD file of areas needing SPGM that was created using DWC's 2018 Annual Mine Map. If this information cannot be depicted on Exhibit 3.9.2, perhaps an additional exhibit should be created. (GAW)

Response: The original "Worst-Case Mining Disturbance" boundary was removed from Exhibit 3.9.2 because it no longer serves any purpose. The new "Worst-Case Mining Disturbance" boundary was added to the Exhibit which encompasses the entire permit area. The "Soil Respread Areas" were subtracted from new mining disturbance to calculate the acres yet to be respread. Thus, Exhibit 3.9.2 has been updated to more easily visualize respread yet to be performed.

9. Follow-up to Item No. 47 of our technical review letter dated March 16, 2021. The Worst-Case Bond Approximate Spoil Disturbance boundary is not shown on Exhibit 3.9.2, Worst Case Bond Map, even though it is listed as a red line in the legend. Please clarify the difference between the "Worst-Case Mining Disturbance" line and the "Worst Case Bond Approximate Spoil Disturbance" boundary. Perhaps the Worst-Case Bond Approximate Spoil Disturbance boundary line could be relabeled Worst Case Disturbance boundary to show where SPGM respread will be needed. (GAW)

Response: As with the original “Worst-Case Mining Disturbance” boundary, the “Worst Case Bond Approximate Spoil Disturbance” boundary no longer serves any purpose and was removed from the legend of Exhibit 3.9.2. As with other final pits at the mine, all available material will be used to fill the final pit; thus, all areas not respread will be utilized for fill. Similar to Response #8 above, the “Soil Respread Areas” were subtracted from new mining disturbance to calculate the acres yet to be respread, which also represents the area where spoil will be needed to fill the final pit.