



Public Service Commission

State of North Dakota

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INSPECTION REPORT

DATE OF INSPECTION: July 27, 2021

TYPE OF INSPECTION: Partial

PERMITEE - MINE: Dakota Westmoreland Corporation - Beulah Mine

PERMITS INSPECTED: KRSB-8603, KRSB-8802

PERSONS ACCOMPANYING INSPECTORS: Jerry Schinke, Scott Aberle and Mike Mohl

INSPECTION CONDITIONS: The inspection was conducted between 8:00 a.m. and 11:00 a.m. CDT. Skies were hazy. The temperature reached 83° F. Access was unrestricted.

GENERAL

The purpose of this inspection was to determine the extent and depth of gray colored sediment on reclaimed hayland north of the dragline walkway corridor in the S1/2NW1/4 of Section 21 of Permit KRSB-8603. The sediment deposition was observed during the mine flyover on June 20, 2021, and was briefly inspected on July 20, 2021.

Areas associated with ephemeral drainageways north of the dragline walkway corridor were walked to determine the extent and depth of gray colored sediment on reclaimed hayland. DWC's 2019 Annual Mine Map documents that the hayland north of the dragline walkway was respread with SPGM and seeded in 2005 and 2006. Runoff flows north of the dragline walkway where it enters a drainage above sediment pond P87 which is in the southwest corner of the NW1/4 of Section 21. National Agriculture Imagery Program (NAIP) 2016 imagery of the NW1/4 of Section 21 is provided on **Figure 1** and areas contaminated with gray sediment, the dragline walkway corridor and Pond P87 are labeled. The 2016 NAIP imagery was used because it shows the extent of the sediment deposition more clearly than current imagery.

The drainageways were walked and a shovel was used to estimate the depth of sediment accumulation in areas affected. Six to eight inches of sediment has accumulated on reclaimed hayland in areas immediately adjacent the dragline walkway and the depth of accumulation gradually decreases downslope (north) from the dragline walkway. Brown colored topsoil was found under the grey sediment and alfalfa crowns and litter were observed on the topsoil below the layer of sediment. The alfalfa crowns document the height of the topsoil when the site was seeded. Alfalfa, intermediate wheatgrass and smooth brome grass are established throughout areas affected with sediment, but only a thin stand of smooth brome grass is present in areas where the sediment deposition is greater than 4 to 5 inches. Sediment that

is only an inch or two deep does not appear to be adversely affecting the established vegetation, but plant vigor is reduced in areas where the sediment accumulation is greater than approximately 4 inches and only a thin stand of smooth brome grass is growing in these areas. The total area affected by sediment is estimated to be approximately 1.3 acres.

An inch or two of sediment has accumulated in a depression at the north end of the eastern drainageway. Otherwise, there was no evidence of sediment deposition in the drainageway above Pond P87.

Photographs showing the depth and extent of sediment are on file with the Reclamation Division and four photographs are attached to this report.

The gray colored sediment affecting reclaimed land clearly originated from the dragline walkway corridor which was constructed with spoil from the Gold Pit as described in the General Mining Plan on pages 11 and 12 of Section 3.1 of Permit KRSB-8603. Exhibit 3.1.8b in the permit indicates that topsoil was respread on virgin land that was affected and on reclaimed land that was re-affected by construction of the dragline walkway in the NW1/4 of Section 21. There was no evidence that topsoil had been removed from areas affected by sediment and a topsoil stripping edge was not present. No water management best management practices (BMP's) were observed adjacent the dragline walkway when the site was inspected July 20, 2021. DWC has since constructed a berm along the north side of the dragline walkway to convey runoff to sediment pond P87 and sumps have been excavated in the north dragline walkway ditch adjacent areas affected with sediment.

Runoff from land south of the dragline walkway corridor is conveyed westward along the south side of the walkway where runoff eventually enters an intermittent stream in the SW1/4 of Section 21. Walkway ditch maintenance is needed to ensure runoff does not flow over undisturbed land in the southwest corner of the NW1/4 of Section 21 and a silt fence should be installed adjacent a sump located at the intersection of the dragline walkway and the Iron Pit haul road.

SURFACE WATER MANAGEMENT

Sediment ponds listed below were briefly observed.

Sediment Pond	Comment(s)
P99E	Water about 3.5 feet below spill elevation
P99W	Water about 10 feet below spill elevation
P98	Water about 7 feet below riser spill elevation
P97	Water about 12 feet below riser spill elevation
P96	Water about 6 feet below riser spill elevation
P95	Nearly dry

A berm on the east side of Ramp 2 of the Gold Pit in Permit KRSB-8603 has been extended northward about 100 feet. This should force runoff from graded spoil to the final Gold Pit. During the July 20th inspection it was apparent that runoff had passed around the north side of the berm on the east side of Ramp 2 and then passed through a piping hole in a berm on along the west side of Ramp 2. This runoff entered Pond P85, which was not designed as a sediment pond.

REVEGETATION

Permit KRSB-8603: Reclaimed cropland established with the pre-cropland perennial hayland seed mixture was being harvested (baled) in the N1/2 of Section 20. Reclaimed native grassland in Section 17 has been harvested for hay. Portions of these areas were not harvested, presumably because of surface roughness and grass stand establishment and perhaps expected low yields. The seeded perennial

vegetation has not established on areas seeded last year in the NW1/4 of Section 20 and the NE1/4 of Section 19. Only a few scattered Intermediate wheatgrass plants were observed established on these new seedings and annual weed growth, primarily Russian thistle, was abundant on these new seedings. The annual weeds on the new seedings in Section 20 have been swathed and were in the process of being baled. Removal of this weed growth by cooperators has prepared the land for reseeding, which was advised. The annual weeds on the reclaimed land in the NE1/4 of Section 19 have not been cut or clipped or otherwise controlled. These weeds should be clipped during the growing season to aid grass stand establishment and to prevent the weeds from blowing off permit after they mature.

Cattle were utilizing reclaimed native grassland in the SE1/4 of Section 18 of Permit KRSB-8603. Absinth wormwood was abundant on the reclaimed native grassland on this tract.

Canada thistle and absinth wormwood was frequently observed on lands affected by mining and these State listed noxious weeds were observed on SPGM stockpiles 19-04-1 and 19-05-2 which are in the NE1/4 of Section 20 of Permit KRSB-8603.

ROADS

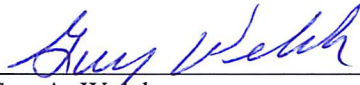
An enormous amount of dust was observed behind loaded triple seven trucks traveling on the haul road in Section 12 of Permit KRSB-8802. An implement that appeared to be a water truck was also observed in this area, and it was also creating fugitive dust. This activity was observed from Highway 49 after the inspection was completed.

WILDLIFE

Pheasants and numerous mule deer were observed in Section 20 of Permit KRSB-8603.

MISCELLANEOUS

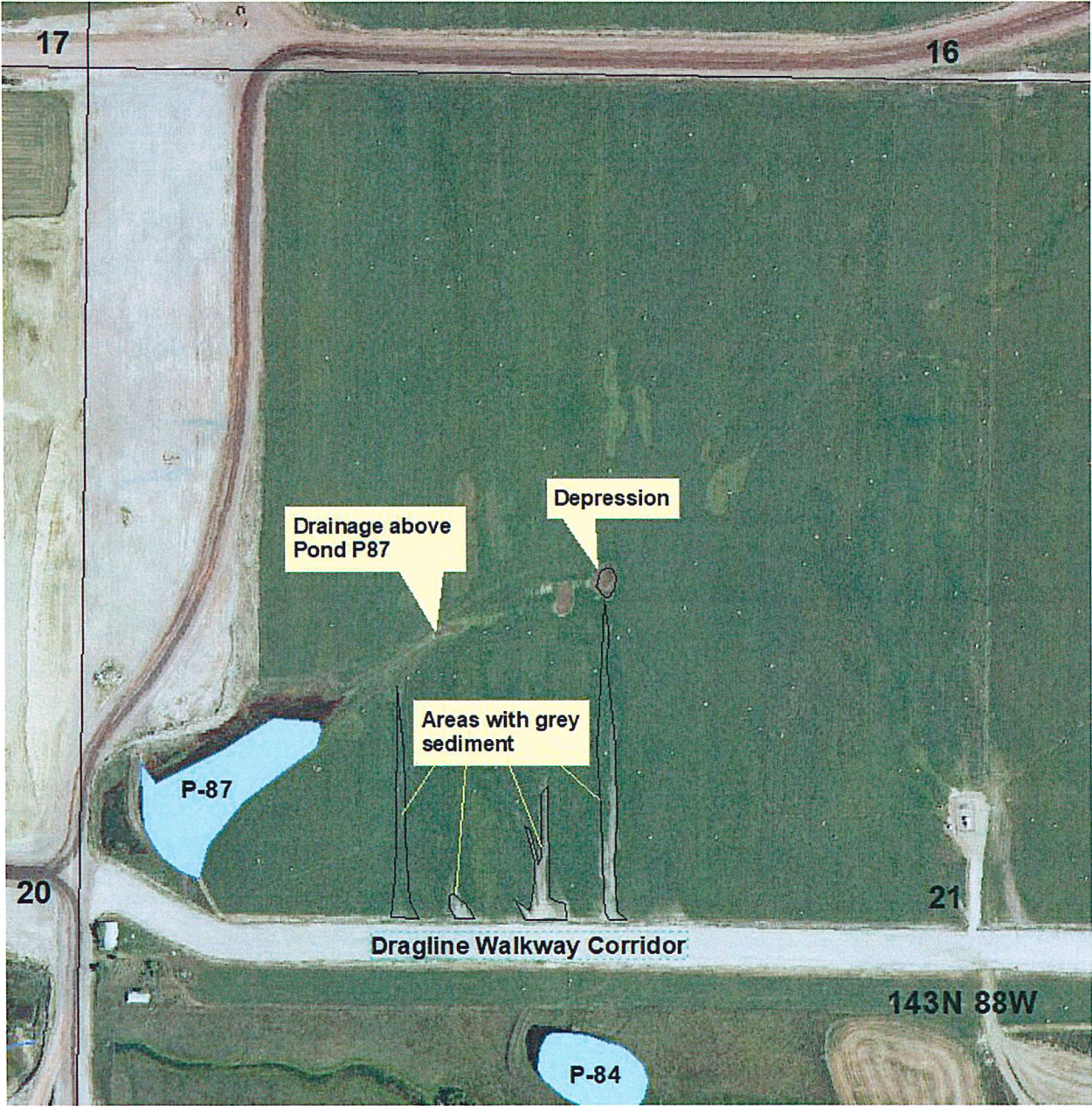
A GPS tracklog of the route traveled and photographs taken during the inspection are on file with the Reclamation Division.



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cc: Jerry Schinke
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Oliver County Auditor
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Figure 1: 2016 NAIP imagery showing sediment deposition on reclaimed land in NW1/4 of Section 21 of Permit KRSB-8603



**Photographs of sediment on reclaimed land in the S1/2NW1/4 of Section 21,
Permit KRSB-8603**



