

DKM



Public Service Commission

State of North Dakota

COMMISSIONERS

Julie Fedorchak
Randy Christmann
Brian P. Kalk

Executive Secretary
Darrell Nitschke

600 East Boulevard, Dept. 408
Bismarck, North Dakota 58505-0480
Web: www.psc.nd.gov
E-mail: ndpsc@nd.gov
Phone: 701-328-2400
ND Toll Free: 1-877-245-6685
Fax: 701-328-2410
TDD: 800-366-6888 or 711

INSPECTION REPORT

DATE OF INSPECTION: November 8, 2016

TYPE OF INSPECTION: Partial

PERMITTEE - MINE: Coteau Properties Company - Freedom Mine

PERMIT INSPECTED: NACT-9101

PERSONS ACCOMPANYING INSPECTORS: Troy Leingang, Kayla Torgerson, Amanda Hoffer, Ken Link and Mike Berg representing Coteau Properties Company; Bill Tveit, Mercer County Commissioner; Ken Miller, Mercer County Road Superintendent; and Dan Halstead and Scott Peterson representing NDGF

INSPECTION CONDITIONS: The inspection was conducted between 10:00 a.m. and 12:45 p.m. CST. Skies were sunny. The temperature was near 60° F. Access was unrestricted.

GENERAL

The purpose of this inspection was to inspect the reclaimed lands associated with Final Bond Release Applications No. 6 and 7 to Permit NACT-9101, as required by NDCC 38-14.1-17(3). The Wetlands Advisory Committee, NDGF, OSM and Mercer County Commissioners were invited to participate in this inspection. Two NDGF representatives, a County Commissioner and the Mercer County Road Superintendent participated in the inspection. Each of the bond release applications are discussed in detail below.

BOND RELEASE NO. 6 TO PERMIT NACT-9101

Bond Release Application No. 6 contains 128.8 acres of land located along the northern edge of Section 17 and the NW1/4 of Section 16, T145N, R86W. Approximately 52.8 acres including some redisturbed pre-law spoils within this tract were affected by mining related activities and are subject to our current reclamation requirements. The balance of the tract consists largely of pre-law orphan spoil that was not redisturbed. The lands in this tract are owned and managed by the NDGF Department as part of the Harmony Lake Recreation Area. The postmining land use of this tract is recreation land that includes

three reclaimed wetlands, orphan spoil grassland, native grassland and a portion of a reclaimed section line road. The 10-year revegetation responsibility period does not apply to recreation lands.

The reclaimed grassland on this tract consists of areas of re-disturbed orphan spoil where no soil was available for salvage and areas where topsoil and subsoil was salvaged and respread. Although no SPGM was available for salvage on the re-disturbed orphan spoil areas, the reclaimed orphan spoil area was respread with 8 inches of subsoil and 4 inches of topsoil and planted to a diverse mixture consisting of 17 species of native and introduced grasses and forbs. The reclaimed native grassland was seeded to the Coteau's native grassland seed mix that consist of 7 native grass species. These lands were reclaimed and seeded in 2007, 2008, 2009 and a small area was seeded 2013. The seeded species and other invasive species have established very well on this reclaimed grassland and these species are providing excellent ground cover through the entire area. It was very difficult to determine the boundary between reclaimed native grassland and the reclaimed orphan spoil due to the uniformity of vegetative stand. This reclaimed native grassland was hayed later in the growing season which made determining species composition more difficult and perhaps made the grassland tracts appear more similar than it actually is. In any event, this reclaimed grassland is well established with little bluestem, Kentucky bluegrass, smooth brome grass, switchgrass, western and intermediate wheatgrass, hard fescue, sweet clover, black medic and sideoats grama. The established vegetation is providing excellent protection from erosion. The majority of this tract drains to the 3 sediment ponds that have been converted to wetlands, although it appeared that a small portion of the tract may drain into a pond within the orphan spoil. The images in Figure 1 below show the reclaimed grassland.

Figure 1: Reclaimed grassland



Reclaimed sediment ponds P-D17-01R, P-D17-02R and P-D16-02R were converted to reclaimed wetlands CW-D17-04, CW-D17-03 and CW-D16-02, respectively, in 2010 and 2012. Design plans for these wetlands are included in Section 5 of Permit NACT-9101. Wetland CW-D17-04 is designed to hold approximately 6 feet of water prior to spilling into a riser, wetland CW-D17-03 will hold about 3 feet of water prior to spilling into an outlet and wetland CW-D16-02 was designed to hold approximately 5 feet of water prior to spilling into the old channel of East Antelope Creek. The wetlands in Section 17 (D17) have embankments and are classified as being seasonal wetland while wetland CW-16-02 doesn't have an embankment and it was classified as a semi-permanent wetland in the permit.

CW-D17-04 was holding water several feet below spill elevation and most of the pool area of the wetland was supporting wetland vegetation. However, there was a small open water zone in this wetland which indicates that it has been functioning as a semi-permanent wetland during these recent years of higher than normal precipitation. The open water zone is surrounded by cattails, and bulrush to a lesser extent. Reed canarygrass was quite prevalent around this wet-meadow vegetation zone. Switchgrass, Canada thistle, and Kentucky bluegrass were observed in the low prairie zone. The emergency spillway was supporting a heavy stand of reed canarygrass and it did not appear that water had flowed through this spillway recently. The embankment to this wetland is well vegetated and no erosion was noted in this area. The riser to this wetland is capped with a trash rack and a gate valve was noted on the embankment that would allow one to regulate the water level of the pond/wetland. Figure 2 shows this wetland.

Figure 2: CW-D17-04



CW-D17-03 was holding water at spill elevation. A developed spring located about ½ mile north of this wetland apparently flows enough water to keep this wetland at spill elevation on a permanent basis. This spring flow is allowing this wetland to function as a permanent or semi-permanent wetland and the majority of the pool area of the pond is an open water zone. The open water zone is lined with cattails and bulrush, and phragmites to a lesser degree, along the shoreline and the upper reaches of the shoreline is supporting species such as reed canarygrass, Aster sp., Canada thistle, switchgrass, and other low prairie species. The spillway is also lined with cattails and concrete matting is in place at the end of the

spillway to keep erosion from occurring, although it appeared that water may be flowing under some of the matting. A picture of CW-D17-03 is shown in Figure 3.

Figure 3: CW-D17-03



Wetland CW-D16-02 was designed as a semi-permanent wetland. This wetland is in the original drainage way of East Antelope Creek which has been diverted upstream into Harmony Lake. Water would flow through this wetland if the East Antelope Creek block/diversion was removed. This wetland was holding water several feet below spill elevation. The spillway is lined with cattails which is also the principal vegetation established around the large open water zone in this wetland. There was evidence of muskrat activity in this wetland and the wetland appears to be functioning as intended. CW-D16-02 is shown in Figure 4.

Figure 4: CW-D16-02



The principal outlet of Harmony Lake is located immediately west of wetland CW-D16-02 adjacent to the original channel of East Antelope Creek. There is a concrete energy dissipater at this discharge point and the area adjacent to the outlet is heavily established with cattails (see figure 5). No water was discharging from Harmony Lake at the time of this inspection.

Figure 5: Harmony Lake principal outlet



The reclaimed section line trail located along the north side of Final Bond Release No. 6 has been constructed to serve as a very functional road compared to that which existed prior to mining. This road is built up similar to a county road. It has functional ditches and the affected portion has been surfaced with scoria. Mr. Leingang indicated that Coteau was in the process of having this road opened by the county to allow the public access to the north side of the Harmony Lake Recreation Area. The road ditch associated with this road is well vegetated. There are two culverts under this road immediately upstream from CW-D16-02. Rock is in place at the outlet ends of these culverts to keep erosion from occurring. Figure 6 shows the reconstructed section line trail.

Figure 6: Section line trail on the north side of Sections 16 and 17.



No issues were identified with any of the land associated with Final Bond Release No. 6. All observed of state listed noxious weeds, primarily Canada thistle and Absinth wormwood, appeared to have had been sprayed this fall.

BOND RELEASE NO. 7 TO PERMIT NACT-9101

Final Bond Release No. 7 consists of 30.6 acres of land located in a portion of the SE1/4 of Section 21 of T145N, R86W. This tract consists of 29.2 acres of cropland and 1.4 acres of county road right-of-way. Approximately 17.4 acres of the tract were disturbed by mining activities. This tract is owned by the Coteau Properties Company.

Only a small portion of County Road No. 17 within this bond release tract was affected by mining activities and it has been restored. This road is paved and it appeared that a new layer of asphalt may have been applied this year.

The cropland was in small grain stubble that had been harrowed this fall. There were a number of rocks on the surface of this cropland but apparently these rocks were present prior to mining since the topsoil from the lands affected on this tract was stored on site and respread back on this area. It was difficult to visually determine which portions of this cropland field had been affected by mining. The topography appears to blend appropriately throughout. According to the topographic map of the area, this cropland drains southward to the permit boundary at which point it is not visually clear in the field how it drains beyond that point. However, since this property was only affected by associated disturbance the topography should be exactly like it was prior to mining. No water ponding or differential settling was noted on this tract. The image in Figure 4 below

MISCELLANEOUS

Pheasants observed on the lands associated with Final Bond Release No. 6 and a muskrat was observed in CW-D17-03.

Photographs taken during this inspection are on file with the Reclamation Division as are GPS tracklogs of the route traveled during the inspection.



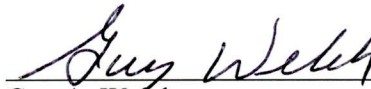
Bill Gunnerson
Environmental Scientist



Bruce Beechie
Environmental Scientist



Randy Kowalski
Environmental Scientist



Guy A. Welch
Environmental Scientist

cc: Troy Leingang
OSM Casper Field Office
Mercer County Auditor