



Public Service Commission

State of North Dakota

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COMMISSIONERS

Julie Fedorchak
Randy Christmann
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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: July 12, 2016

TYPE OF INSPECTION: Complete

PERMITTEE - MINE: Coyote Creek Mine

PERMITS INSPECTED: NACC-1301, NACC-1302

PERSONS ACCOMPANYING INSPECTORS: Donn Steffen

INSPECTION CONDITIONS: The inspection was conducted between 9:30 a.m. and 3:30 p.m. CDT. Skies were mostly clear. The temperature was near 70° F. Access was limited mostly to roads and active areas to avoid areas still wet from recent rains.

OFFICE RECORDS

Mining permits and other mining related permits and information were on file and available for review. The following records were briefly reviewed:

Record	Comment
Coyote Creek MSHA Identification Number	32-01028
Certificate of Liability Insurance	On file, expires 2/1/2017
Surface Water Monitoring Report	1 st Quarter 2016 report on file
Ground Water Monitoring Report	1 st Quarter 2016 report on file
Air Pollution Control Permit	PTC 15001 on file, dated 1/7/2015
NDPDES Discharge Permit	Permit ND0026697 on file, expires 10/30/2019
NDPDES Discharge Monitoring Report	1 st Quarter report on file, dated 4/28/2016
NDPDES Storm Water Permit	NDR32-0772, expires 12/31/2019
NDPDES Storm Water Discharge Monitoring Report	Report for 2015 on file. No sampled discharges.
Pond Inspection Reports	2 nd Quarter 2016 report on file. Ponds inspected 6/17-24/2016.
Haul Road Certifications	Annual Haul Road certification dated December 2015
State Coal Exploration Permit	Expired 6/22/2016. Request to explore outside of coal mining permit area.

Record	Comment
Mercer County Conditional Use Permits	Conditional use zoning permits were on file for the permit area, the haul road and an industrial use permit were on file for the shop-office facilities area. These permits were dated 8/6/14, 1/21/15 and 1/2/14, respectively.
Mercer County Temporary Test Hole Drilling	Expired 12/31/2014
Mercer County Road Closures and Setbacks	Closure and setback information on file
US Corps of Engineers Permit	Regional General Permit No. 11-01 on file, expires 8/31/2017.
Temporary Water Use Permit	Appropriation of 110 ac-ft. from sediment ponds from 8/21/2015 to 8/20/2016 on file.

SIGNS & MARKERS

Permit identification signs and markers were observed throughout the inspected permit areas.

OVERBURDEN/COAL REMOVAL

The dragline was removing overburden in the NE1/4 of Section 24. A scraper was working on the pit entrance area of Ramp 1. Coal was being hauled from the north end of the pit through Ramp 1.

SURFACE WATER MANAGEMENT

The recent rain events resulted in a substantial increase in the water levels of the sedimentation ponds. Several thunderstorms occurred in the area during the week prior to the inspection. The most recent events occurring over the July 9th and 10th weekend were brief intense storms with estimated rainfall totals ranging from 1.5 to 2.5 inches (NOAA, RFC estimates). The flow in Coyote Creek was low, perhaps 1 to 2 cfs as a visual estimate. The following is a list ponds viewed with approximate water levels and other information:

Pond	Water Level	Comments
P30-01	4 Feet below PPE	
P31-01	3 Feet above PPE	Slightly below prior to weekend rains
P30-03	3 Feet above PPE	Slightly above prior to weekend rains
P30-04	4 Feet above PPE	About 9 feet below spill, was pumped to P30-01, below PPE prior to rains.
P30-02	4 Feet above PPE	About 4 feet below spillway
P19-01	2 Feet below PPE	
P24-01	2 Feet below PPE	
P24-02	4 Feet below PPE	
P10-01	8 Feet below PPE	
P10-02	5 Feet below PPE	

The sumps along the SPGM removal edge up gradient of ponds P24-01 and P24-02 were inspected. The three sumps and silt fence sediment traps located above P24-02 appeared to function as intended to minimize the sediment load carried in runoff through the wooded portion of the drainages leading to the pond but each require sediment removal. We noted that the silt fence at the east sump was beginning to

undercut and a portion of the middle fence partially fallen. The sediment control sump and silt fence in the east haul road ditch appeared to function as intended and is one of several sediment controls where crews were able to remove sediment following the July 3rd storm event. The material was excavated from the sump and temporarily placed nearby at the toe of the road slope but outside the main flow path to the sump. A crew was repairing silt fences and installing additional ones along the haul road northeast of the Coyote Creek crossing in Section 19.

The erosion and sediment controls along the haul road north of County Road 12 took heavy damage from the recent rain events. At several locations it appeared that significant erosion occurred at discharge outlets during the runoff events resulting in the loss of material from erosion at pipe outlets and the loss of silt fences and sumps located near the outlet. We reviewed and extensively photographed the erosion at haul road storm water discharge point 6 in the SE1/4 of Section 9. Similar damage was observed at storm water discharge points 4, 8 and 9. The other storm water discharge points were affected but to a lesser degree. A contract crew was removing sediment at discharge point 3 in the SW1/4 of Section 10.

Haul road Discharge Point 8 in SE1/4 Section 8



SUITABLE PLANT GROWTH MATERIAL REMOVAL/RESPREAD

The PC2000 excavator and truck fleet was removing topsoil in the SE1/4 of Section 25 and hauling the material to stockpile 13 in the NE1/4 of Section 30. The upland hay field had been harvested in the NE1/4 of Section 25. The active mine area fencing had not yet been moved in order to complete the SPGM removal scheduled for this year in Section 25.

ROADS

Erosion and sediment damage was reviewed along the north haul road with observations made at each haul road discharge point. Crews were in the process of making an initial round of maintenance and

repairs to sediment controls along the north haul road. We discussed the ongoing erosion and sediment control activities and possible plans, materials and equipment to maintain and stabilize the haul road slopes. The two main challenges for managing runoff from the haul road corridor are the lack of vegetation or other cover on cut and fill slopes along with stabilizing the discharge outlets.

The overburden materials comprising the finished grades and serving the growth media to establish vegetation are poor or marginal in agronomic qualities. The vegetation that has grown this year is too short and thin to provide erosion protection on the constructed slopes of the haul road. We discussed the possibility of purchasing topsoil material or obtaining organic matter such as manures or commercial humic product to construct a topsoil like material to help establish vegetation. Mulch and other ground covers will need to be used extensively to protect the slopes until vegetation establishes.

The design, arrangement and erosion protection armoring used at the culvert and slope drain outlets must be reevaluated and improved to provide a stable transition for water from the outlets to the undisturbed channel downstream of the haul road. The discharge points that appeared to experience the most off-site sediment deposition also had substantial erosion damage at the outlets. We discussed several possible modifications to be made at discharge point 6 and others with similar damage.

OFF-SITE REVIEW

We walked two areas outside the permit boundary to evaluate the extent of sediment deposition below discharge points that blew-out during a recent rain event. We followed sediment deposition from Discharge Point 6 to an area near Brush Creek in the SE1/4 of Section 9 on land owned by Otter Tail Power Company and partners. A low area possibly a former oxbow channel on the Brush Creek flood plain appeared to have detained flows from Discharge Points 4, 5 and 6 allowing sediment to deposit on the area. The area appeared to drain to Brush Creek via a small well-vegetated channel. No visible sediment deposits were observed in this small channel or Brush Creek.

We walked a portion of the drainage below Discharge Points 8 and 9 located on State land in the SE1/4 of Section 8. The sediment material in this area is very sandy in texture and appeared to settle-out mostly upstream of the point where the drainage from point 8 joins the drainage below point 9. About 150 to 200 yards downstream of where point 8 joins the drainage below point 9, the sediment deposits appeared to be minimal.

Sediment deposits were observed beyond the permit boundary at discharge points 12, 13 and 14 on land owned by Ronald and Janice Gunsch. We did not walk the areas below these discharge points. The areas of deposition were observed and photographed from the haul road. Notice of Violation 1601 was subsequently issued for the sediment deposition that occurred on these off-permit areas.

WILDLIFE

A hen pheasant and a brood of about a dozen young were observed near the permit boundary down stream of discharge point 8 in the SE1/4 of Section 8. An antlerless deer was seen near haul road discharge point 12 in the NE1/4 of Section 18.

MISCELLANEOUS

A GPS point track log of the driven inspection route and photographs taken during the inspection are on file with the Reclamation Division. A DVD containing some of the photographs taken during this inspection is attached and a photograph log is provided at the end of this inspection report.



Randy Kowalski
Environmental Scientist

Attachment – DVD containing photos taken during this inspection

cc: Sarah Flath
OSM Casper Field Office
Mercer County Auditor

Minedata/CoyoteCreek/InspectionReports/2016/160712c

Haul road discharge point photograph log for July 12, 2016

Discharge Point	Location	Notes
1	SE10	Photos d/s: 822-825, 826 ponding in ditch between points 1 and 2.
2	SW10	Photos d/s: 829 sump at top of slope Contractor crew removing sediment on downstream side
3	SW10	Photos u/s: 815-818 d/s: 830-832
4	SE9	Photos u/s: 811, 812 d/s 833-834 880 looking from off permit
5	SE9	Photos d/s: 835, 880 looking from off permit
6	SE9	Photos u/s: 809, 810, 838, 887 d/s: 836, 837, 839-847, 881-886 off permit 848-880 Brush Creek at 859
7	SW9	Photos d/s: 888, 889 Sediment removal and repaired following 7/3 rain
8	SESE8	Photos d/s: 891, 934-943 off permit 913-933 Sediment trail leading off permit
9	SWSE8	Photos u/s: 804-808, 892 d/s 893-903 off permit 904-912 Sediment trail off permit
10	SW8	Photos d/s: 944-945
11	SWSW8	Photos u/s: 800-803 d/s 946-947
12	NE18 north	Photos u/s: 799 d/s: 948-952 Flow (about 1cfs) from upstream possibly DWC pond discharge
13	NE18 south	Photos u/s: 798 d/s 954-958
14	SW18	Photos u/s: 796-797 d/s: 959-961 Recently cleaned/repared
Coyote Creek Crossings: Section 19, Photos 782-795 Section 30, Photos 962		