2024 Dakota Collieries AML Project

Contractor: Young Gun Construction, LLC.
Contract Number: AM-899-24
Contract Bid Amount: $1,015,149.30
Total Project Cost: $1,081,973

Tree Removal Contractor: CD & Sons, LLC
Contract Number: AM-893-24
Contract Bid Amount: $21,100
Total Project Cost: $21,100

Location: Three miles southeast of Zap, ND within portions of Section 36, T144N, R89W, and Sections 31 and 32, T144N, R88W, Mercer County

2024 eAMLIS Project Information							
Project	Project Area Number & Name	Project Start Date	Project End Date	Working Days	Project Cost	Estimated Population Impacted	Acres Reclaimed
2024 Dakota Collieries AML Project	ND014/ Beulah Subsidence	8/13/2024	9/12/2024	22	Subsidence: $202,120	75 - based on 5 % of deer permit for the unit 3D2	7.09 Acres
2024 Dakota Collieries AML Project	ND014/ Beulah Tree Removal and Highwall	3/11/2024	10/04/2024	49	Highwall: $900,953	75 - based on 5 % of deer permit for the unit 3D2	17.56 Acres

Bipartisan Infrastructure Law (BIL)

This project was funded by the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL). The OSMRE (Office of Surface Mining Reclamation and Enforcement) is required to submit a report to Congress within six years of the first BIL AML grant allocations. This report will detail the progress made under the BIL AML provisions in addressing outstanding reclamation needs under subsections (a) and (b) of section 403 and section 410 of SMCRA. OSMRE has asked States and Tribal AML Programs to collect the following metrics.

BIL Metrics:

AML Reclamation Environmental Benefits

- Number of acres reforested: 0 acres
- Number of trees planted on AML sites: 0 trees – This site would be eligible for future tree plantings.

- Number of bat gates installed: 0 bat gates
- Number of acres of endangered species habitat re-established: 0 acres
- Number of tons of rare earth elements, metals, or sediment recovered for reuse: 0 tons
- Amount of methane emissions reduced: 0

Socio-economic Benefits of BIL AML Projects

- Percent of overall benefits and types of benefits that accrue to disadvantaged communities, communities of color, low-income communities, or Tribal or Indigenous communities: 0%
- Number of former/current employees of the coal industry employed in AML reclamation: 0 employees
- Demographics of workers and number of workers from under-represented groups: One (1) female equipment operator worked 86 hours on the project.
- Percentage of workers employed at AML sites that reside in the county in which the AML project is located, or in adjacent counties: 36% (4/11)
- If there is a community benefit agreement as part of the project: No
- Number of project partners involved in AML reclamation projects: 0 project partners
- Number of contract(s) awarded that aggregated projects exceeding a value of $1 million at the time of award: 2 contracts were awarded that aggregated over $1 million
- Number of businesses constructed on reclaimed AML sites, and number of people employed at those sites: 0 businesses
- Number of job hours involved in BIL AML remediation: 1,621.62 hours
- Number of people receiving potable water after completion of water supply restoration projects: 0 people
- Number of residents positively impacted by the restoration of previously polluted waterways: 0 residents
- Number of residents within one mile of a BIL-funded project: 2 residents

Further, for projects or aggregated projects in excess of $1 million, States or Tribes should require that contractors, consistent with State or Tribal applicable law, provide:

1) a certification that the project uses a unionized project workforce;

2) a certification that the project includes a project labor agreement; or

3) a project workforce continuity plan:

- Not Applicable – North Dakota is a right to work state.

AML Background

The Public Service Commission administers the Abandoned Mine Lands (AML) Program on behalf of the State of North Dakota. The State AML Program was approved by the U.S. Department of the Interior in 1981 under the authority of the Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87, Title IV). Program funding comes from a federal reclamation fee on coal that has been mined in the United States since the late 1970's. These fees are placed into the AML fund and the money that North Dakota receives from this fund is

used to eliminate existing and potential public hazards resulting from abandoned surface and underground coal mines.

Dakota Collieries Site Background

There are several abandoned lignite coal mines located within three miles of the reclamation areas. The EL Gunderson Mine was the first recorded mine. It began operating in 1905. The Gunderson Mine was a small underground operation that grew and became the Lucky Strike Mine. The Zap Colliery (1922) was a surface strip mine that went through several name changes including the Dakota Collieries Mine (1938), and Indian Head (1955). In 1957 the North American Coal Corporation purchased the mining operation and continued operating under modern reclamation laws.

Project Overview

The AML Division began planning the 2024 Dakota Collieries AML Project after site investigations and meetings with landowners in 2023. A public meeting was held on January 8, 2024, at the Beulah Civic Center. The meeting sought input from landowners, local government, and anyone concerned about abandoned mines.

PSC staff performed topographic surveys in the fall of 2023 along with a plan to address the problems raised by landowners. In February of 2024, CD & Sons, LLC was awarded the tree removal contract via competitive bidding. Trees were felled in the wintertime to avoid impacting bat populations and nesting raptors. CD & Sons, LLC began cutting down the trees on March 11, 2024. Approximately 80 trees were felled by the completion of the contract on March 12, 2024.

Young Gun Construction, LLC of Ludlow SD was awarded the construction contract via competitive bidding in April. The project was divided into the west, central, and east work areas (**Figure 1**). On July 22, 2024, construction commenced. Approximately 7,292 feet of silt fence were installed to control erosion and prevent sedimentation downstream.

The central site was an abandoned surface coal mine characterized by a steeply eroding highwall, 50 feet high and 915 feet long. Work on the central site began with stripping and stockpiling all available topsoil and subsoil. The contractor then backsloped and backfilled the highwall with earthen material from adjacent spoil piles in July. Approximately 115,000 cubic yards of spoil material were moved to reclaim the surface mine on the central site (**Figures 2 and 3**). An unexpected sinkhole opened up when heavy equipment was grading the highwall (**Figure 4**). The sinkhole was caused by an undocumented abandoned underground mine. The large sinkhole was promptly filled and compacted. Following backfilling and backsloping, subsoil and topsoil were respread, and soil amendments were incorporated. Engineered drainage channels lined with erosion control blankets were installed to direct surface water runoff on the reclaimed area. A solar well and two stock tanks were constructed (**Figure 5**) to replace a developed spring that was destroyed by an abandoned mine.

Work on the west property included reclaiming subsidence and erosional features from an abandoned surface mine. Many of these features were caused or enhanced by the lack of vegetation that could grow on spoil material. Over 300 cubic yards of spoil were required to

reclaim approximately 51 subsidence features on North Dakota State Trust Land. A soil enhancement mixture of gypsum, leonardite, and sulfur (**Figure 6**) was incorporated to improve health prior to seeding and mulching. Lastly, one rock channel (**Figure 7**) was installed, and two existing rock channels were reinforced to stabilize large erosional gullies.

Work on the eastern site consisted of stabilizing eroding spoil material and filling subsidence features in and adjacent to the farm trail used to access the property. Surveys showed 5,875 CY of spoil was moved to stabilize the slopes and fill the subsidence areas (**Figures 8 and 9**). Manure was then hauled from the landowners' nearby property and respread over the reclaimed areas to help establish vegetation. Work also included grading an additional erosional area and removing an old, rusted culvert that was directing surface water runoff. This area was graded, and the culvert was removed and replaced with a flexible concrete mat (**Figure 10**). The concrete mat will allow seasonal runoff to flow downstream while allowing the landowners to access the western portion of their property. One new rock channel (**Figure 11**) was installed to stabilize a large erosional gully in the SE1/4 of Section 32.

All disturbed areas were seeded with locally adapted grass species and mulched. Approximately 1,451 feet of wattles were installed to prevent erosion in the newly disturbed areas. The project was completed on October 4, 2024.

Statistics for the 2024 Dakota Collieries AML Reclamation Project:

- 836 tons of gravel was used to access the AML site
- 7,292 feet of silt fence was installed and removed
- 8,151 cubic yards of topsoil were salvaged and respread
- 11,804 cubic yards of subsoil were salvaged and respread
- 317 cubic yards of spoil were used to reclaim 51 settlement features on the east site
- 114,857 cubic yards of spoil material were moved to reclaim 915 feet of dangerous highwall
- 5,875 cubic yards of spoil were moved to stabilize a spoil disposal area
- 410 cubic yards of rip rap were placed to stabilize two eroding channels and reinforce 2 existing rock channels
- 2,246 CY of manure and 56 tons of soil amendment were incorporated into the respread topsoil.
- 2,211 feet of erosion control blanket were installed
- 1,451 feet of wattles were installed
- 24.65 total acres reclaimed

Figure 1: Project Location Map

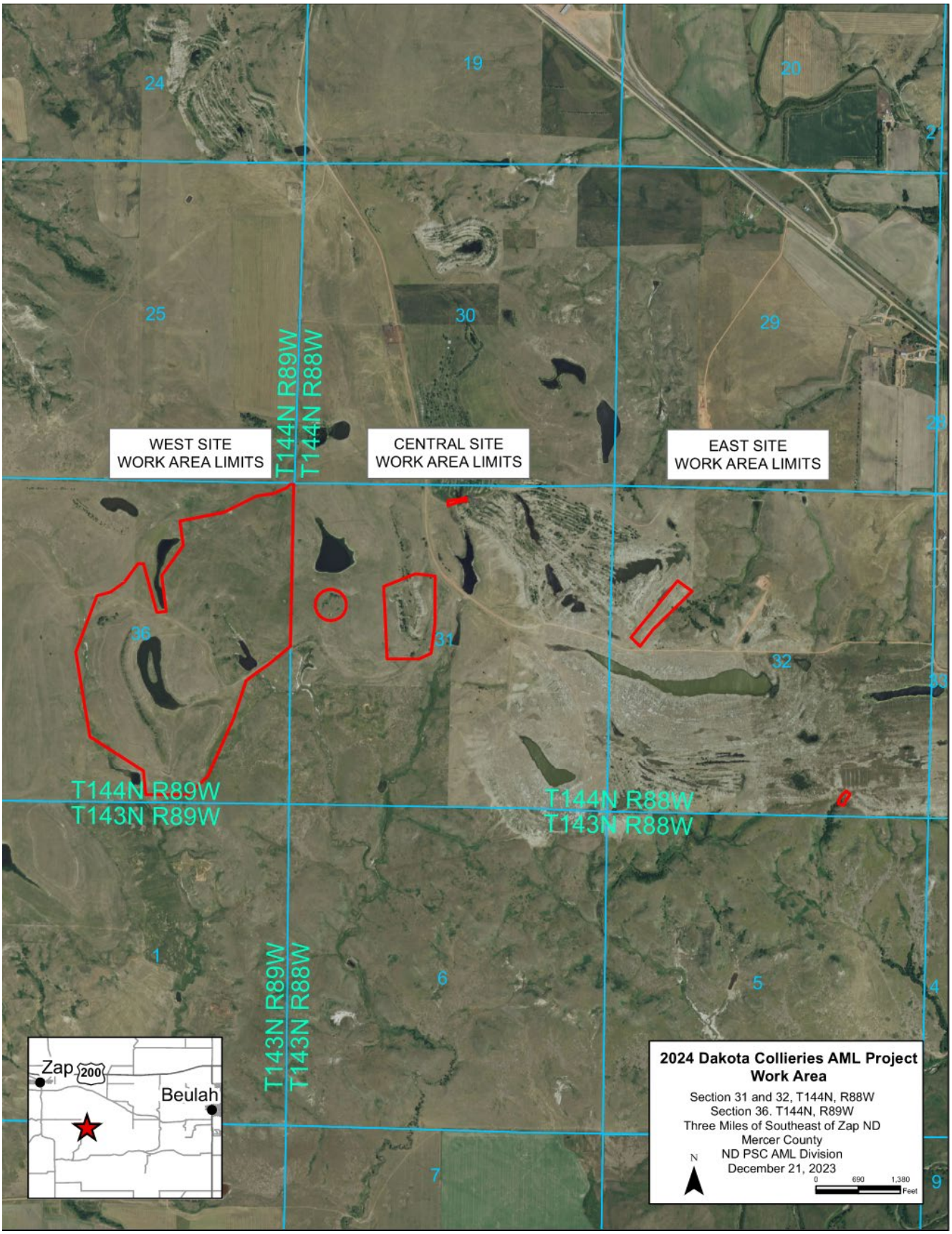

Figure 2: The surface mine in Section 31 before reclamation.

Figure 3: The surface mine in Section 31 after reclamation.

Figure 4: This sinkhole developed when heavy equipment was grading the highwall.

Figure 5: A solar well watering system was installed because the abandoned mine reduced surface and groundwater availability.

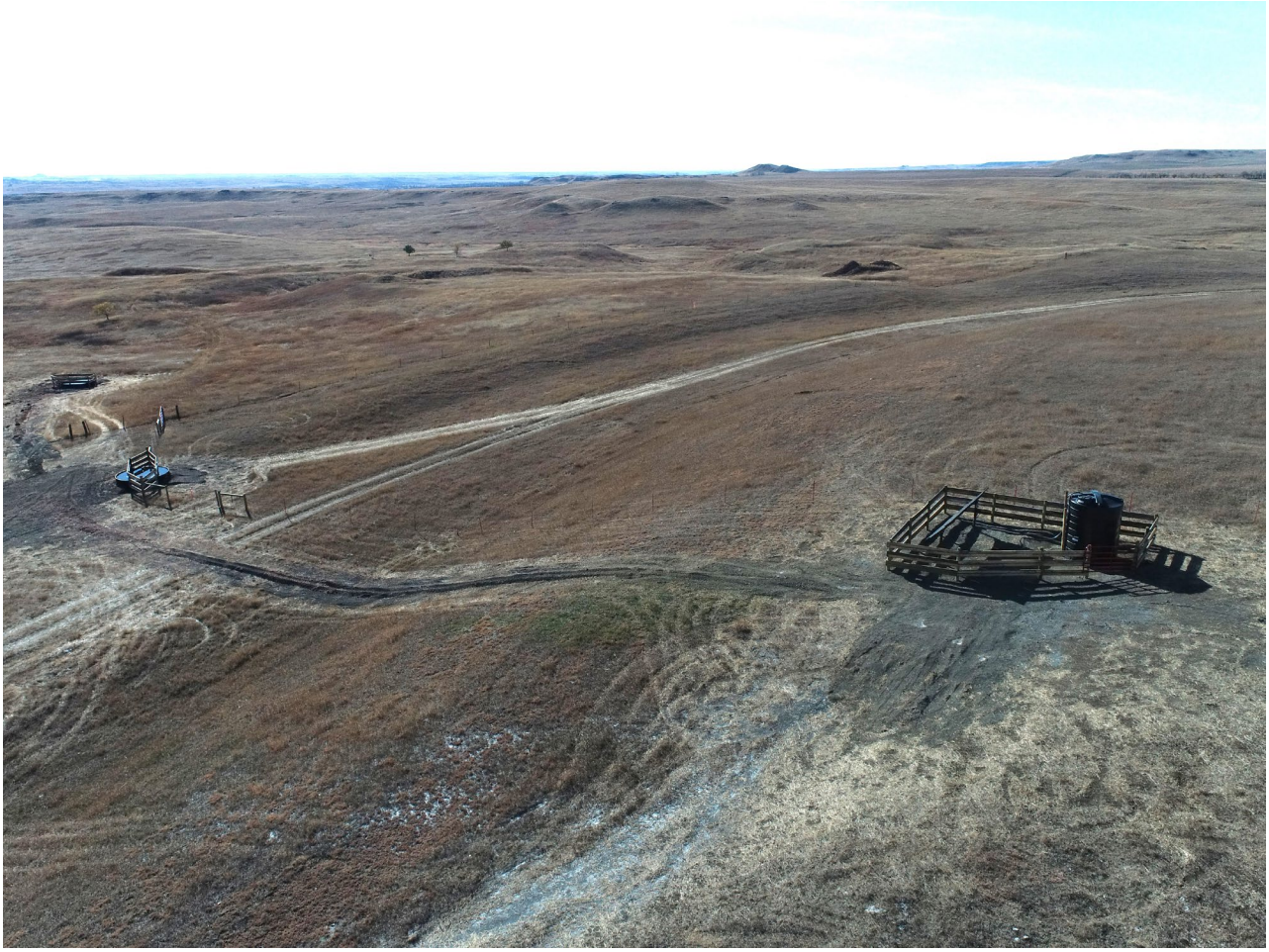

Figure 6: Soils amendments were incorporated into the soil on the North Dakota State Trust Land.

Figure 7*:* Three erosional gullies were graded and stabilized with rip rap in Section 36.

Figure 8: Slope stability area with subsidence features before reclamation.

Figure 9: Slope stability area after reclamation.

Figure 10: A flexible concrete mat was installed to replace a culvert and stabilize erosion.

Figure 11: A large erosion gully was graded and stabilized with rip rap.