

2016 AML Project Report

Bowman Foxhole AML Project

November 2016

Project Definition

The project consisted of filling the pits of two adjacent surface mine pits with spoil material piled on site.

Project Location

The project sites are located on both sides of 78th Ave SW, which is also the Bowman and Slope County line, approximately seven miles north of Bowman, North Dakota.

Contractor

The work on both sites was completed by Martin Construction, Inc. of Dickinson, North Dakota

Project Cost

The reclamation was completed at a final cost of \$90,447.15.

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North Dakota Public Service Commission and Abandoned Mine Lands

The Public Service Commission administers the Abandoned Mine Lands (AML) Program on behalf of the State of North Dakota. Our program began when North Dakota Legislature approved an Abandoned Mine Lands Program in 1981. North Dakota currently has records for 1,700 abandoned coal mines which are generally located in the western half of the state. Of these, North Dakota has records of 580 individual final pit highwalls created by surface mining. These final pit highwalls are walls that are created where the final mining on site was completed. These walls are generally very steep, and range in height throughout the state from 15 to 70 feet. The AML program is charged with eliminating existing and potential public hazards resulting from abandoned surface and underground coal mines.

The Surface Mining Control and Reclamation Act (SMCRA), passed in 1977, set up a federal fund with fees collected on active coal mines for the reclamation of abandoned mines. The rate of fee on the active coal mines is 8¢ per ton. Of the national share, North Dakota receives approximately \$3 million per year. Federal fee collection will be continued through 2021 unless the program is reauthorized by the United States Congress.

Project Summary

The 2016 Bowman Foxhole AML Project was conducted to reclaim two pits of an abandoned surface coal mine located in Section 31, T133N, R101W of Slope County and Section 2, T132N, R102W of Bowman County, approximately 7 miles north of Bowman, North Dakota. The project required the contractor to remove all salvageable topsoil, excavate the on-site spoil piles in order to fill the final pits, evenly respread the topsoil, and fertilize and mulch the entire reclaimed site.

The Invitation for Bids was posted on North Dakota State Procurement Online on July 6, 2016. A mandatory on site meeting for all contractors to attend was held on July 21, 2016, and the public bid opening took place on August 2, 2016. Ten bids were received, ranging from \$89,300 to \$266,355. The lowest received bid was submitted by Martin Construction, Inc. of Dickinson, North Dakota. A Notice of Intent to Award was published by the Public Service Commission on August 3, 2016, and a contract with Martin Construction, Inc. was executed on August 17, 2016. The contract allowed a 40-day performance period, beginning September 6, 2016 and ending October 16, 2016.

Construction began on September 19, 2016. Bob Hoff, Project Superintendent from Martin Construction, Inc. was on site for the duration of the project. The topsoil was stripped on both sites of the project and piled into eight individual stockpiles. Those piles were measured for volume by survey, and the total volume was 4,840 cubic yards, which was 97 percent of the estimated volume. Topsoil salvaging was completed on September 22, 2016.

Earthwork began on September 23, 2016. A Cat D8T Bulldozer and a Cat 627G scraper were operated by a two-man crew for completion of the project. Rough grading on the north site was completed on September 27, 2016. All final grading was finished with a Cat 140 motor grader. Grading of the south site was completed and approved on September 29, 2016. The final grade survey was completed on October 13, 2016. The final amount of earthwork completed by the contractor was 43,211 cubic yards, which is 108 percent of the estimated volume.

Topsoil respread began on September 30, 2016. Topsoil was respread with the 627G scraper, as per the project IFB specifications. Topsoil respread was completed on October 4, 2016.

Once the topsoil was respread and leveled, the contractor fertilized and mulched the site. The reclamation of the site created a final topography that was gently sloping and would be suitable for cropland. Both landowners expressed their intentions to farm the newly reclaimed land, so the site was not seeded. At the request of the county engineer, the disturbed areas of the ditch were seeded.

The final part of the project was to place an overlay on the existing scoria road located west of the project site. Due to the slope of the newly reclaimed land, we had a concern that the existing road would washout during periods of high intensity rainfall. Eight truckloads of Class 5 gravel were delivered onsite and were used to raise the level of the road by an average of one foot.

The final inspection of the project site was completed on October 13, 2016. The final cost of the project completion was \$90,447.15, which was \$1,147.15 more than the contract amount. One change order was issued to increase the volume of earthwork and decrease the topsoil volume and straw wattles. This AML Project eliminated 1100 feet of dangerous highwall and improved 10 acres.

Photos

Topsoil Salvage



Top: Cat D8T dozer performing the topsoil stripping of the pit of the north site.

Bottom: Topsoil stripping completed on the south site



Partial Completion



Top: Cat D8T dozer and Cat 627G scraper leveling the highwall on the north site

Bottom: Partial completion of filling the pit of the south site



Final Grade



Top: Final grade of the north site

Bottom: Final grade of the south site



Completed Project

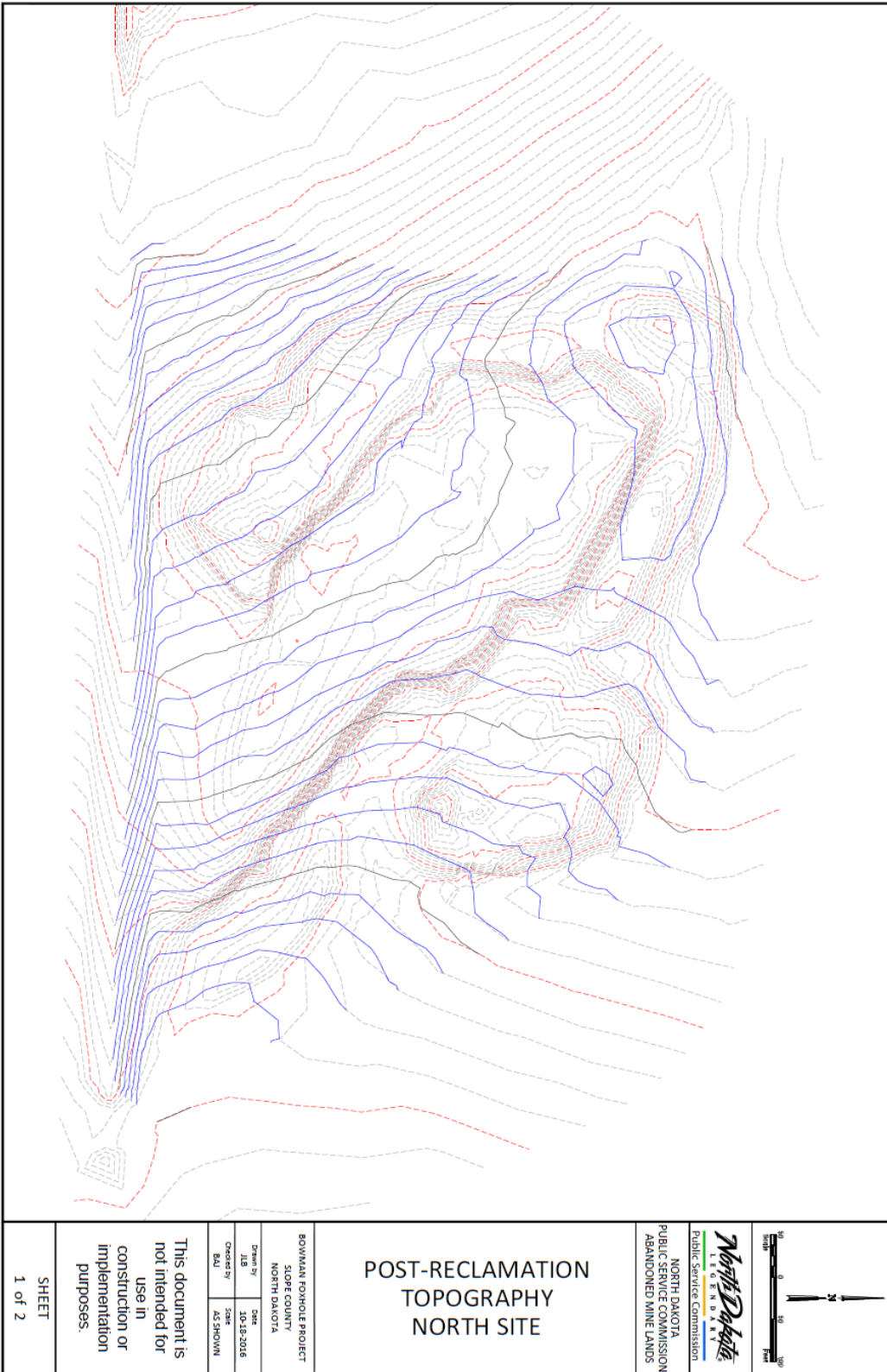


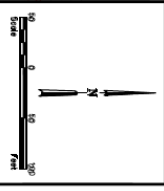
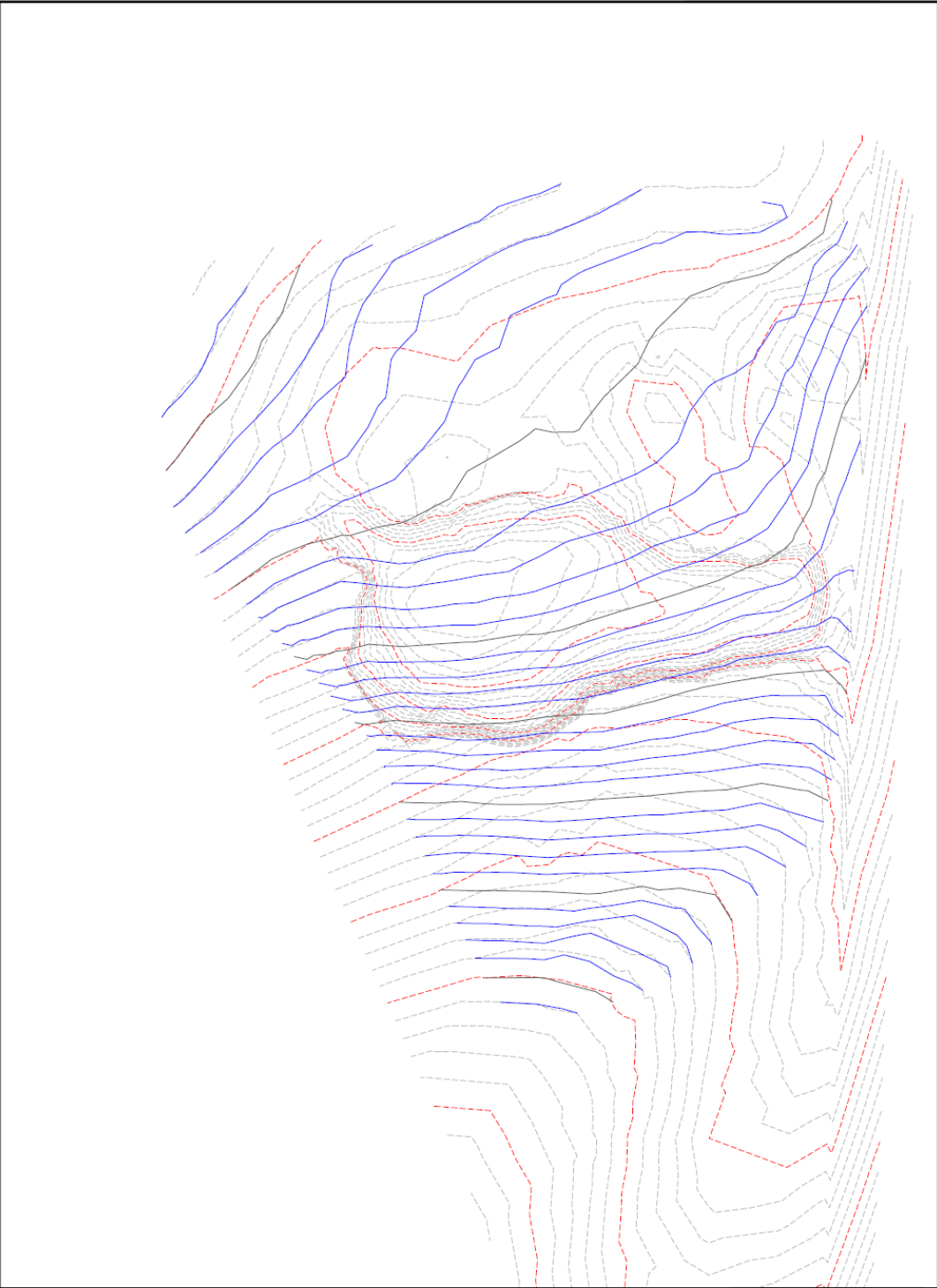
Top: Final grade of the north site after straw mulching and crimping

Bottom: Final grade of the south site during the process of crimping the placed straw mulch



As Built Drawings






 NORTH DAKOTA
 PUBLIC SERVICE COMMISSION
 ABANDONED MINE LANDS

POST-RECLAMATION TOPOGRAPHY SOUTH SITE

BOWMAN ECKHOLE PROJECT
 SLOPE COUNTY
 NORTH DAKOTA

Drawn by	Date
JLB	10-18-2016
Checked by	Scale
BAJ	AS SHOWN

This document is
 not intended for
 use in
 construction or
 implementation
 purposes.