

# 2018 Morton County AML Project Summary

---

## **North Dakota Public Service Commission, Abandoned Mine Lands Division November 2018**

### **About the Abandoned Mine Lands Division**

The Public Service Commission administers the Abandoned Mine Lands (AML) Program on behalf of the State of North Dakota. The U.S. Department of the Interior approved our State AML Program in 1981. Program funding comes from a federal reclamation fee on coal 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. Of the national share, North Dakota currently receives approximately \$3 million per year through federal grants. Federal AML fee collections will end in 2021 unless the U.S. Congress reauthorizes the program. We currently have records for approximately 1,700 abandoned coal mines in western North Dakota and about half of these are for abandoned surface mines.

### **Project Objective**

This 36-acre project was conducted to reclaim about 2500 feet of dangerous highwalls at two abandoned surface coal mines in Morton County. These highwalls were about 15-40 feet high, with water-filled pits at the bottom. Reclamation involved backsloping and backfilling the highwalls with earthen material from adjacent spoil piles.

### **Project Locations and Property Owners**

The 24-acre Carrick Site is located about 7 miles west and 1.5 miles north of New Salem in Section 6, T139N, R86W. Mike and Denise Groce own the Carrick site. The 12-acre Nilles Site is located 4 miles west and 1.5 miles north of New Salem in Sections 2 and 3, T139N, R86W. George and Mary Kreidt, Leonard and Bonnie Maier and David and Roxane Wolding own the Nilles site.

### **Dates and Details of Reclamation Work**

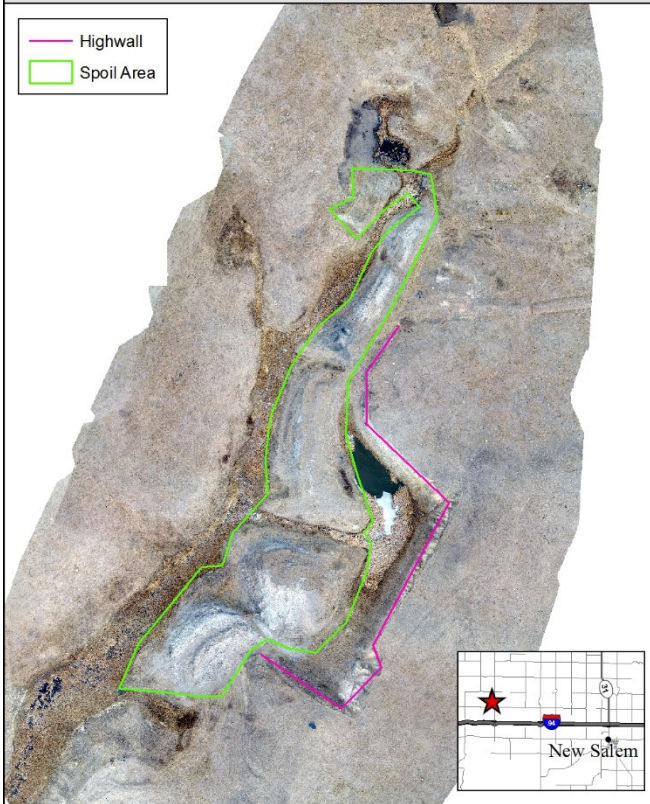
Work on this project began June 11 and finished September 18, 2018. Approximately 115,000 cubic yards of spoil material was used to backfill the highwalls at these two sites. Equipment used in this work included three Cat 627G Scrapers, a Cat 330CL excavator, Cat D8K bulldozer, Cat D6N bulldozer, Cat 143H grader, Cat 95E tractor, disk and other farm equipment for seeding and mulching. Two ponds and a waterway were constructed at the Carrick Site. Approximately 300 feet of perforated PVC pipe was installed as a toe drain to capture clean water from the coal seam at the Carrick site. This water flows through a solid outlet pipe into a constructed pond used by livestock and wildlife. A large petrified stump was moved from the work area at the Carrick Site at the landowner's request. Inert waste, including tree branches, wood, concrete and metal was cleaned up and buried at the Nilles Site. Earthwork was completed by July 31. Fertilizing, tilling and mulching was completed by September 18. Both sites were planted with a native grass seed mixture. Straw wattles were installed at both sites and rock riprap was placed at the Carrick Site to control erosion. Two areas were fenced at the Carrick site where the Morton County Soil Conservation District will plant trees next year.

### **Contractor and Project Cost**

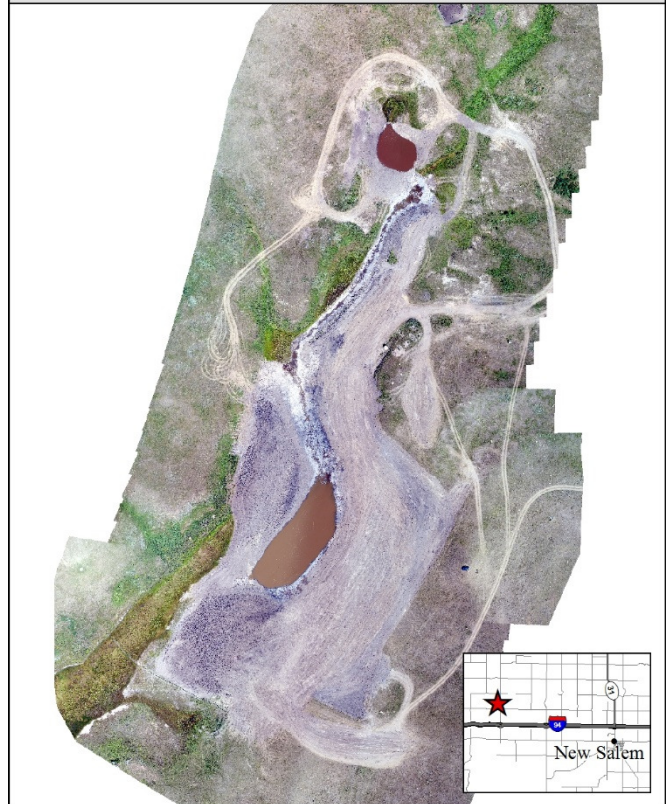
Wilson Construction of Scranton, ND, was the contractor for this project. The final cost was \$228,774.90, about 9% less than the original contract price of \$252,400. The contract was closed October 10, 2018.

# Project Location Maps

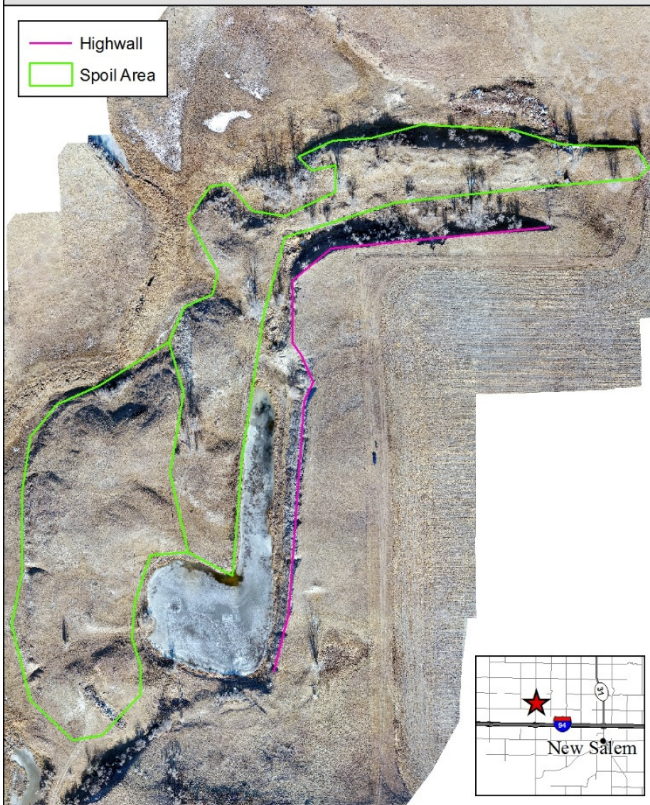
## Carrick Site Pre-reclamation



## Carrick Site Post-reclamation



## Nilles Site Pre-reclamation



## Nilles Site Post-reclamation



## Preconstruction Photos

### Carrick Site



This shows part of the unstable highwall at the 24-acre Carrick site. It was up to 40 feet high and quite steep. There was stagnant, poor quality water in the pit. Spoil piles are at the right of this photo.

### Nilles Site



This shows a portion of the 12-acre Nilles Site. The highwall was up to 25 feet high and quite steep with water in the final pit. Spoil materials used for reclamation are on the right of this photo.

## Construction Photos

### Carrick Site During Construction



This shows a scraper hauling spoils to fill the final pit along the highwall. A perforated pipe “toe drain” was installed to collect water from seeps at the base of the highwall and discharge it into a reclaimed pond.

### Nilles Site During Construction



This shows a bulldozer pushing spoil to fill part of the pond and the final pit highwall. This highwall was reclaimed by backfilling with spoil and backsloping the top of the highwall.

## Reclamation Photos

### Carrick Site Final Grade



This shows the Carrick Site after the highwall was completely reclaimed but before seeding and mulching. A waterway and two ponds were constructed on this site. Two areas near the pond in this photo were fenced and trees will be planted there in 2019 by Morton County Soil Conservation District.

### Nilles Site Final Grade



This shows the reclaimed highwall at the Nilles site while it was being seeded and mulched. Part of the water filled pit was eliminated to make a smaller pond. Inert wastes including wood, metal and concrete were cleaned up and buried away from the pond.