

2025 Lehigh Road Phase X & Scranton Phase IV AML Project Summary

Drilling and Grouting Contractor: Earth Energy & Water Systems, Inc.

Drilling and Grouting Contract Number: AM-907-25

Drilling and Grouting Project Cost: \$1,976,973.50

Material Testing Contractor: Terracon Consultants, Inc.

Material Testing Contract Number: AM-906-25

Material Testing Project Cost: \$56,823.25

Total Project Costs: \$1,976,973.50 + \$56,823.25 = **\$2,033,796.75**

Locations:

- Sections 7, 8, 17, & 18, T 139N, R 95W, Stark County (Dickinson)
- Section 24, T131N, R100W, Bowman County (Scranton)
- Section 26, T131N, R100W, Bowman County (South Scranton)

2025 eAMLIS Project Information							
Project	Problem Area Number & Name	Project Start Date	Project End Date	Working Days	Project Cost	Estimated Population Impacted	Acres Reclaimed
2025 Lehigh Road Phase X AML Project	ND000024 Binek B, C, D, E, H	9/2/2025	10/31/2025	17	\$733,300 (Contractor) + \$23,880.75 (Materials) = \$757,180.75	23 – AMLIS Census Data	0.64 Acres
2025 Scranton Phase IV AML Project	ND000003 South Scranton	5/22/2025	8/29/2025	21	\$748,101.50 (Contractor) + \$21,297.13 (Materials) = \$769,398.63	5 – AMLIS Census Data	0.58 Acres
2025 Scranton Phase IV AML Project	ND000528 Scranton	6/5/2025	8/26/2025	26	\$495,572 (Contractor) + \$11,645.37 (Materials) = \$507,217.37	5 – AMLIS Census Data	0.21 Acres

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.

Infrastructure Investment and Jobs Act (IIJA)

The Infrastructure Investment and Jobs Act, also known as The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. In addition to the extension of abandoned mine land (AML) fee collections and mandatory AML Grant distributions, \$11.293 billion in new funding was authorized to be appropriated for deposit into the Abandoned Mine Reclamation Fund. The OSMRE (Office of Surface Mining Reclamation and Enforcement) is now required to submit a report to Congress within six years of the first IIJA AML grant allocations. This report will detail the progress made under the IIJA 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. However, this project was funded with the federal reclamation fee on mined coal.

IIJA Metrics:

AML Reclamation Environmental Benefits

- Number of acres reforested: 0 acres
- Number of trees planted on AML sites: 0 trees
- Number of bat gates installed: 0 bat gates
- Quantity of rare earth elements, metals, or sediment recovered for reuse: 0 tons

AMD Remediation Project Benefits

- Quantity of iron, aluminum, manganese, sulfate, etc. removed and/or recovered on annual basis by AMD water reclamation projects: 0 tons
- Quantity of Rare Earth Elements (REE) recovered by AMD water reclamation projects: 0 tons
- Number of AMD passive treatment systems built: 0 passive treatment systems
- Number of AMD passive treatment systems operated and maintained: 0 passive treatment systems
- Number of AMD active treatment systems built: 0 active treatment systems
- Number of AMD discharges abated: 0 discharges abated
- Miles of waterways improved: 0 miles of waterways improved
- Estimated volume of water treated: 0 gallons of water treated
- Number of outflows remediated: 0 outflows remediated

Socio-economic Benefits of IIJA AML Projects

- Number of former/current employees of the coal industry employed in AML reclamation: 0 employees
- Percentage of workers employed at AML sites that reside in the county in which the AML project is located, or in adjacent counties: 50% (2/4)
- If there is a community benefit agreement as part of the project: no community benefit agreement
- 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 IJA AML remediation: 1427 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 people
- Number of residents within one mile of an IJA-funded project: 280 residents (estimated)

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.

Dickinson Site Background

There are several abandoned underground lignite coal mines located within a mile of the work area. The first recorded was the Missouri Slope Company Mine, which is referenced in a 1901 report. Mining in the area was also conducted by Republic Coal Mine (1921), Lehigh Mining Co. (aka Lehigh Coal Mining Co., Lehigh Coal Co.) (1923-1927), Lehigh Briquetting Co. (1928-1948), Dakota Briquets & Tar Products, Inc. (1949-1957), Pelton Coal Mine (1910-1911), Pittsburg (aka Pittsburgh) Coal Mine (1912-1918), Dakota Lignite Mines Co. (1919), Pittsburg (aka Pittsburgh) Mine (aka Coal Mine, Coal Co., Coal Mining Co.) (1920-1940), Dickinson Coal Mining (aka Mine) Co. (aka Dickinson Coal Co./Company) (1941-1975), and the Husky Briquetting, Inc. (1967-1971).

Although we have some records, mining continued much beyond the last recorded mine map. Without accurate mine maps, exploratory drilling is used to characterize and determine the extent of abandoned underground mine workings. The legacy of these mines is exhibited through sinkholes.

The AML Division has conducted multiple sinkhole filling projects in the area and nine previous phases of drilling and grouting projects.

Exploratory drilling was most recently conducted in 2022, 2023, and 2024. This drilling helped identify several abandoned underground mine workings in new locations and it showed that more drilling is necessary to reveal the extent of mining. Grouting was last conducted in 2024, and due to larger than expected grout quantities, the site had to be revisited for the 2025 construction season.

South Scranton Site Background

One known abandoned underground lignite coal mine is located near the work area. The Scranton Lignite Coal Company first recorded mining in 1923. The mine was operated and reported continuous annual production from 1923 through 1946. Since no reports were noted for this mine following 1946, it is assumed that the mine ceased operations at about that time; however, it is possible that the mine was operated but not reported or that it was operated and reported under some other name following 1946. Mining continued well beyond the last recorded mine map (1938). Without accurate and complete mine maps, exploratory drilling is used to characterize and determine the extent of abandoned underground mine workings. The legacy of these mines is exhibited through sinkholes.

The AML Division has conducted multiple sinkhole filling and drilling and grouting projects in the area. The most recent AML project in South Scranton was an Exploratory Drilling project in 2024.

Scranton Site Background

The first recorded abandoned underground lignite coal mine located within this work area was the Scranton Coal Mine which began operations in 1909. Mining in the area was also conducted by Johnson Fuel Co. Coal Mine (1917-1923), Scranton Coal Mining Company (1924-1929), Scranton Collieries Corporation (1930) Northwestern Power Company (1931), Scranton Coal Mining Company (1932-1936). In 1918, it was reported that the underground system of mining was going to be abandoned and surface (strip) mining was to be pursued; however, the mine continued to be reported as an underground mine through 1936.

Mining continued beyond the last recorded mine map (1929). In addition to the most recently completed 2024 Exploratory Drilling Project, the AML Division has conducted multiple sinkhole filling projects in the area as well as three phases of drilling and grouting projects.

Reclamation Procedures

In North Dakota, remote backfilling is the preferred method to stabilize abandoned underground coal mines near public infrastructure. This process involves pumping pressurized grout into the mine voids. Backfilling begins with drilling injection holes about every 10 linear feet. The relatively close spacing of drill holes is essential for targeting the mine workings, as the underground haul tunnels were typically 10 feet wide. Angle or directional drilling may be used to drill under buildings, utilities, or roads. Drill holes that intercept mine workings are cased from the ground surface to within five feet of the mine voids with 3" diameter Schedule 40 PVC pipe. Casing the holes allows for mine inspection with a borehole camera and also serves as a conduit for grout to be pumped into mine voids. The grout is designed to mimic the strength of the removed coal and prevent collapse.

Project Overview

The 2025 Lehigh Road Phase X & Scranton Phase IV AML Project was awarded to Earth Energy & Water Systems, Inc. of New Salem, North Dakota through the competitive bidding process. The total contract cost was \$1,976,973.50.

The 2025 Lehigh Road Phase X & Scranton Phase IV AML Materials Testing Project contract was awarded to Terracon Consultants, Inc. of Bismarck, North Dakota through the competitive bidding process. The total contract cost was \$56,823.25. The material testers collect grout samples and cast grout cylinders. They also test the fine aggregate and perform slump, spread, and strength tests of the grout.

Work began in Scranton on May 22, 2025. **Figures 1 & 2** show the locations of the holes drilled and grouted. Several mine voids were found and grouted along the privately-owned rail spur (**Figure 3**), Dump Road (**Figure 4**), 133rd Ave SW, and near a private residence in Scranton. Grout was pumped along 38th Street SW (**Figure 5**), and Lehigh Road (**Figure 6**) in Dickinson. Fifty-three drill holes were cased in the 2025 Lehigh Road Phase X & Scranton Phase IV AML Project. Twenty-one holes were drilled that encountered grout from previous projects. These holes are labeled as confirmed grout drillholes in the figures below. Grout was pumped into seventy-four cased drill holes. Sixty-four additional holes were filled from adjacent pumping. Work was completed on October 31, 2025, in the Lehigh area. The final quantities for the project include 31,538 feet of drilling, 1,801 feet of casing, and 5,727 cubic yards of grout injection.

All 138 of the grouted drill holes were drilled and cased under the 2022 Exploratory Drilling Project, the 2023 Exploratory Drilling Project, 2024 Exploratory Drilling Project, 2024 Lehigh Road Phase IX Project, or the 2025 Lehigh Road Phase X & Scranton Phase IV Project. There are no remaining cased holes that require grout to be pumped at either project site.

2025 Lehigh Road Phase X Project Statistics:

Total holes drilled: 0
Total feet drilled: 0 feet
Average depth drilled: 0 feet
Total holes cased: 0
Total casing installed: 0 feet
Total grout pumped: 2,800 cubic yards
Average grout pumped per hole: 66.7 cubic yards
Total holes pumped: 42
Holes filled by adjacent pumping: 40
Estimated area reclaimed: 0.64 Acres

2025 Scranton Phase IV Project Statistics:

Total holes drilled: 532
Total feet drilled: 31,538 feet
Average depth drilled: 59.28 feet
Total holes cased: 53
Total casing installed: 1,801 feet
Total grout pumped: 2,927 cubic yards
Average grout pumped per hole: 91.5 cubic yards
Total holes pumped: 32
Holes filled by adjacent pumping: 24
Estimated area reclaimed: 0.79 Acres

Figure 1: Scranton Project Drilling & Grouting Map



Figure 2: Lehigh Project Drilling & Grouting Map

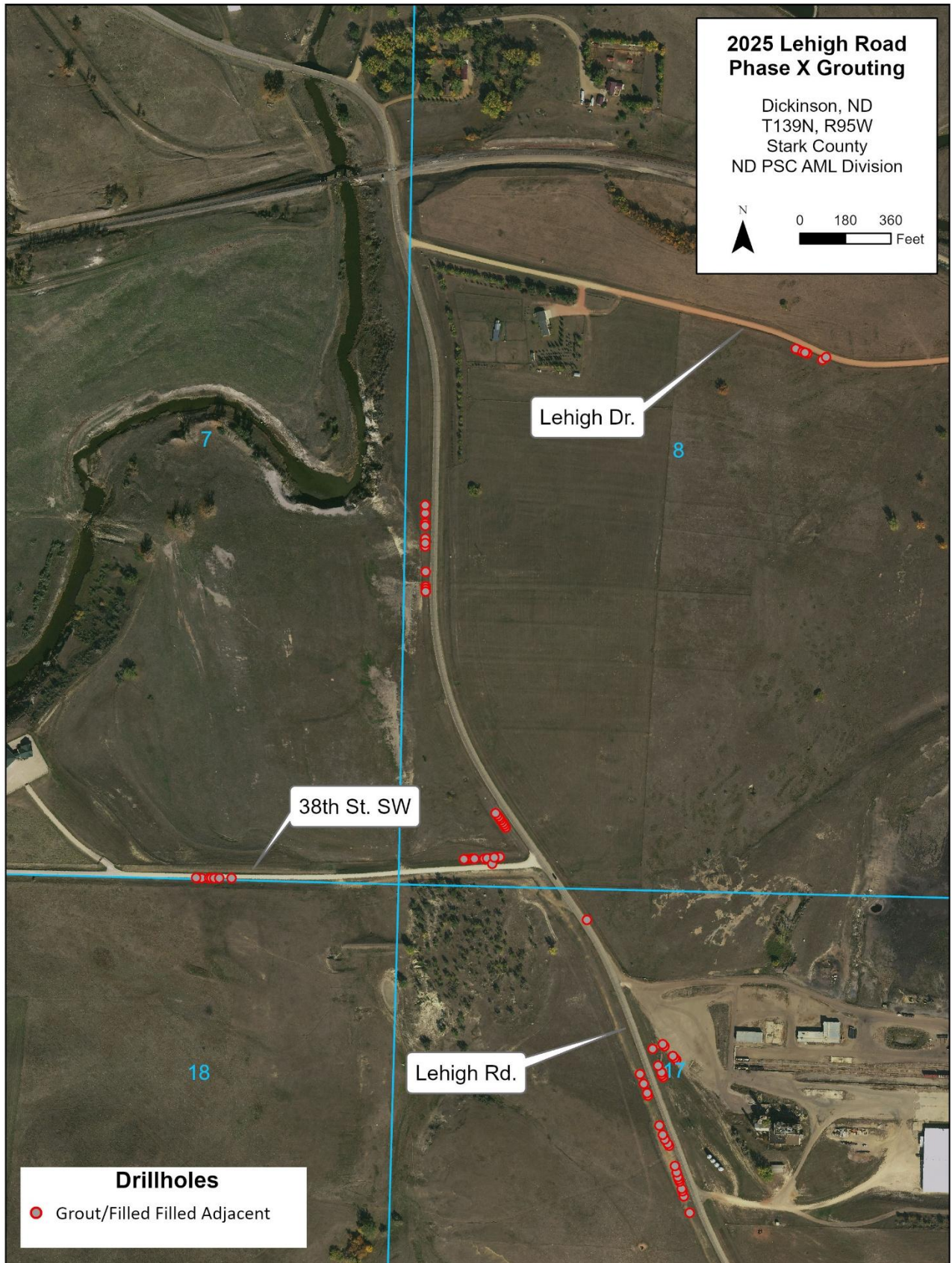


Figure 3: Pumping grout alongside Scranton Equity Exchange’s rail spur



Figure 4: Pumping grout along Dump Road in Scranton



Figure 5: Pumping grout along 38th Street SW near Dickinson



Figure 6: Pumping grout along Lehigh Road near Dickinson

