2025 Exploratory Drilling AML Project

Contractor: Earth Energy & Water Systems, Inc.
Contract Number: AM-896-24 Amendment 1
Total Project Cost: $390,176

Location:

- Sections 16 & 21, T139N, R85W, Morton County (New Salem)

2025 eAMLIS Project Information							
Project	Project Area Number & Name	Project Start Date	Project End Date	Working Days	Project Cost	Estimated Population Impacted	Acres Reclaimed
2025 Exploratory Drilling AML Project	ND000054 – New Salem	12/26/2024	3/17/25	26	$390,176	270 – Average Daily Traffic Count (2022)	0.10

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 mined in the United States since the late 1970s. 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.

New Salem Site Background

There is one known underground abandoned coal mine within the work area. The McCormick Coal Company operated from 1922 to 1932. The Deep Mine Coal Company continued mining operations from 1933 to 1951. The mine's portal was entered via a 190-foot vertical shaft. Two electric cutting machines were used underground. Air shafts and electric fans were used to provide fresh air to the miners. Mining continued twenty-seven years after the last recorded mine map (1924). Without accurate and complete mine maps, exploratory drilling is used to characterize and determine the extent of abandoned underground mine workings. This AML site has not had any reported sinkholes, but the mine map indicates that mining occurred underneath Highway 10 and other privately owned infrastructure.

This was the third drilling project that the AML Division has conducted in this area. A small drilling project was conducted in 1990, and one mine void was found near the vertical mine entrance shaft. The 2024 Exploratory Drilling Project in New Salem included drilling 55 holes, and 25 mine voids were cased.

Project Overview

The 2024 Exploratory Drilling AML Project was awarded to Earth Energy & Water Systems, Inc. of New Salem, North Dakota, through the competitive bidding process. The 2025 Exploratory Drilling Project was a renewal of the 2024 Exploratory Drilling Project contract. The original plan quantities required 20,000

20 AM-24-354 Filed 04/01/2025 Pages: 7
2025 Exploratory Drilling Project Summar
Public Service Commission
Brett Job

feet of drilling and 4,000 feet of casing. This project also required a vacuum truck to capture the substantial amount of drill cuttings and water produced from this abnormally deep mine. Drilling revealed a greater number of mine voids than initially anticipated, prompting the issuance of change orders to accommodate additional casing and drilling requirements. Drilling and casing began on December 26, 2024, and were completed on March 17, 2025. The final quantities for the project were 25,275 feet of drilling and 5,533 feet of casing. The total contract cost was $390,176. Project drilling maps (**Figures 1-2**) show the locations of the holes drilled. The blue dots on the maps represent where coal was encountered, indicating that it has not been mined. The red dots on the maps represent mine voids.

A total of 102 holes were drilled, and 24 were cased during the 2025 Exploratory Drilling AML Project. This project revealed that the extent of the underground mine near New Salem is larger than expected. Additional drilling and grouting projects will likely to occur in the next few years at this AML site. The AML Division prioritizes projects based on hazards and associated risks to the public.

2025 New Salem Statistics	
Drilling Dates	**December 26, 2024 to March 17, 2025** **26 working days**
Total Feet Drilled	25,275
Total Feet Cased	5,533
Days of Drilling	26
Daily Average	Drilling—972’ Casing—213’
Number of Holes Drilled	102
Number of Holes Cased	24

***Figure 1**: 2025 Exploratory Drilling Project Map*

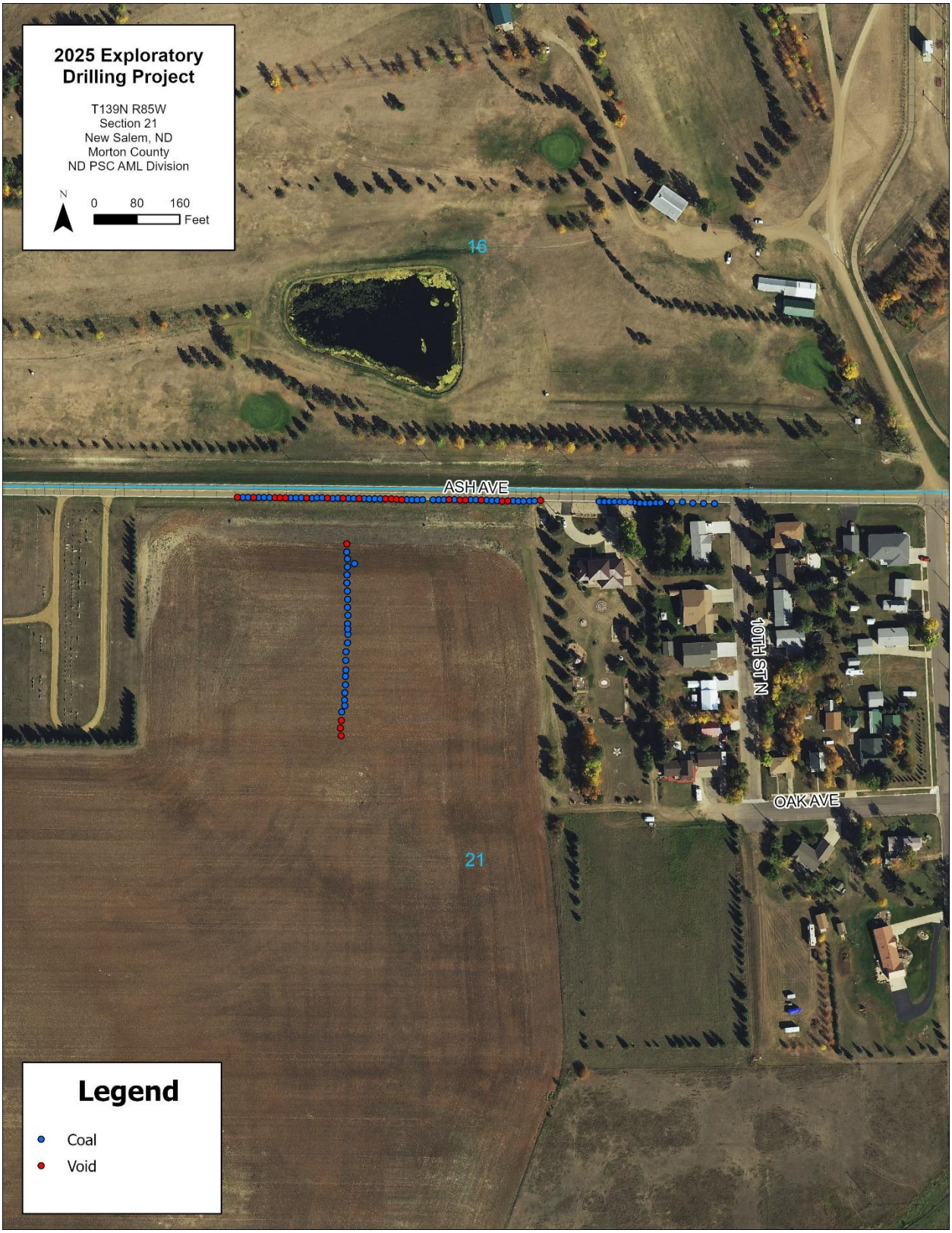

***Figure 2**: 2024 and 2025 Exploratory Drilling Projects Map*

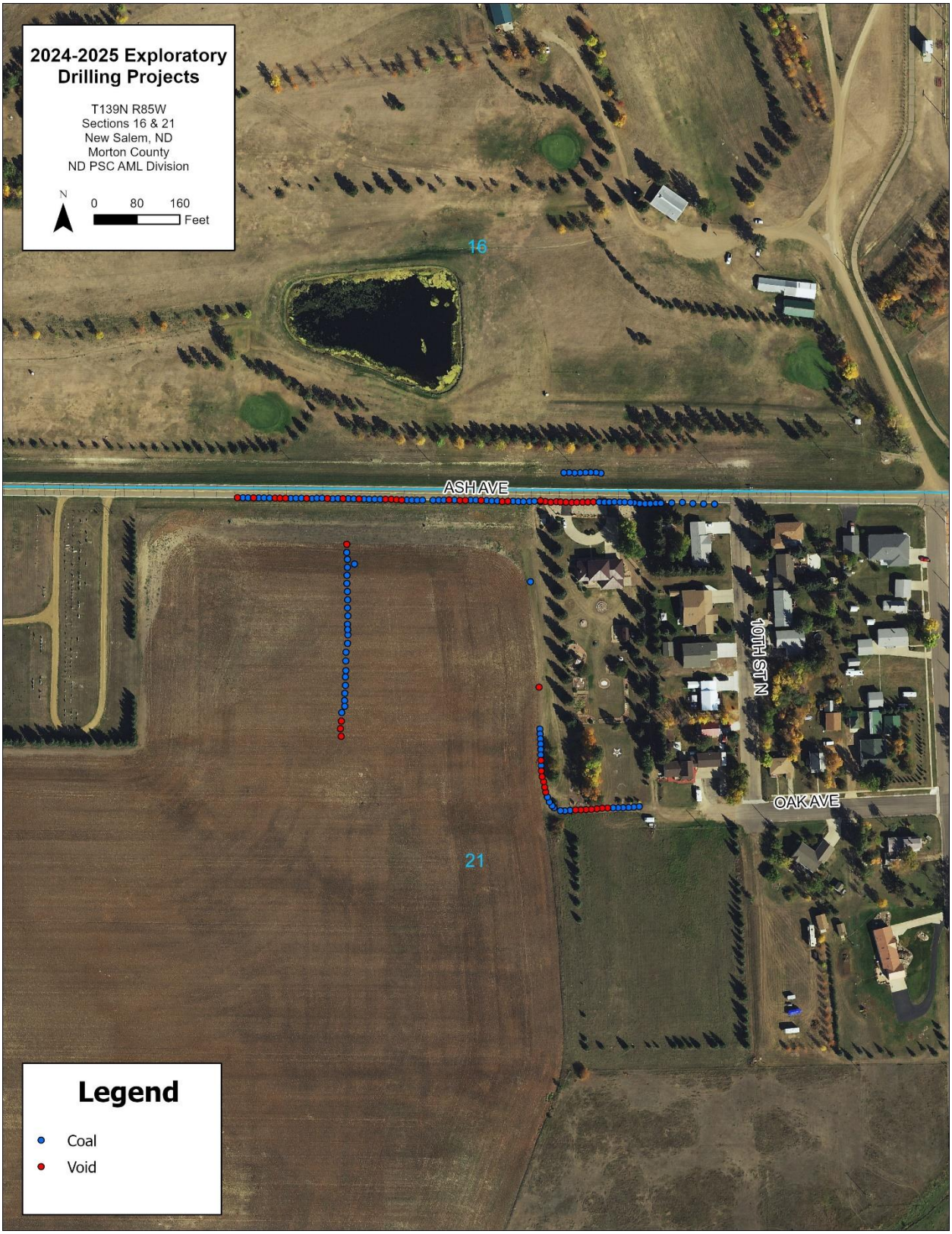

Figure 3*: Drilling along ND HWY 10/Ash Ave in New Salem, ND.*

Figure 4*: A hole being cased along HWY 10/Ash Ave in New Salem, ND.*

Figure 5*: The vacuum truck (on the right) is capturing drill cuttings and water produced by drilling.*