



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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DEC File No: 530.38.006

April 27, 2026

Electronic Delivery Only

Shishmaref Native Store
c/o Linda Austin, ANICA
4025 Delridge Way SW, Suite 300
Seattle, WA 98106

Subject: Decision Document: Shishmaref Native Store
Cleanup Complete Determination

Dear Ms. Austin,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the Shishmaref Native Store located at 1950 Airport Road in Shishmaref. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment, and no further remedial action will be required unless information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Shishmaref Native Store maintained by DEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply.

Site Name and Location:

Shishmaref Native Store
1950 Airport Road
Shishmaref, AK 99772

Name and Mailing Address of Contact Party:

Shishmaref Native Store
c/o Lina Austin, ANICA
4025 Delridge Way SW, Suite 300
Seattle, WA 98106

DEC Site Identifiers:

File No.: 530.38.006
Hazard ID.: 26638

Regulatory Authority for Determination:

18 Alaska Administrative Code (AAC) 75

Site Description and Background

The Shishmaref Native Store is located along the northern coastline of Sarichef Island, adjacent to the Chukchi Sea. A former fuel dispenser was located on the southern portion of the site, west of the store. An asphalt road crosses the site north of the former dispenser. The remainder of the site lies north of the roadway and includes the former marine header and a demolished warehouse building. At the northwest extent of the site, a rocky revetment slopes down to the Chukchi Sea (Figure 1).

Contaminants of Concern

During the site investigation and cleanup activities at this site, samples were collected from soil and analyzed for gasoline range organics (GRO), and diesel range organics (DRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAHs). Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern (COCs) at this site:

- GRO

Cleanup Levels

Soil cleanup levels applicable to the site are the most stringent Method 2 cleanup levels for the Arctic zone found in 18 AAC 75.341(c), Table B1 and 18 AAC 75.341(d), Table B2. As this site is located in the Arctic Zone, the Table C groundwater cleanup levels do not apply based on a demonstration that the site is underlain by continuous permafrost

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
GRO	1,400

Notes:

1. mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

In 2014, two separate fuel sheens were reported along the shoreline north of the Shishmaref Native Store, prompting response and cleanup actions by the United States Coast Guard. These cleanup actions identified gasoline and diesel contamination and traced the likely source to a marine header and dispenser. Fuel lines located at the marine header were hydrostatically tested and confirmed a leak in the gasoline line (Figure 1).

In 2016, the fuel lines were repaired and passed testing. Subsequently, surface soil screening samples, visual and olfactory observations, identified contamination near the marine header and former fuel dispenser. One test pit was advanced until permafrost was encountered.

A site characterization investigation under 18 AAC 75.335 was conducted in 2018, which included test pits, surface and subsurface soil samples, and indoor air quality surveys. One test pit, TP6, had an exceedance of GRO with a maximum concentration of 1,820 mg/kg. At that time, it was determined that the horizontal and vertical extent of soil contamination was not fully defined (Figure 1).

In 2019, an additional site characterization investigation was completed under 18 AAC 75.335. Eleven hand-augured soil borings were advanced, and associated analytical samples were collected. No contaminants were detected in exceedance of the applicable cleanup levels. (Figure 1).

Based on data from 2018 and 2019, the horizontal extent of contamination was delineated at the former marine header and fuel dispenser. However, it was determined that the vertical extent of contamination remained undefined at TP6, Hand Boring 3 (HB3), and TP7 (Figure 2).

Between 2022 and 2023, in-situ chemical oxidation (ISCO) using RegenOx was implemented at the Shishmaref Native Store property. Approximately 5,362 gallons of RegenOx was injected, and seventeen post-injection soil borings were completed. Follow-up site characterization was completed in 2025 to evaluate treatment effectiveness. (Figures 2 and 3). Analytical samples collected in 2025 demonstrated that there was no residual contamination in exceedances of the applicable cleanup levels.

Remaining Contamination

The maximum concentrations of GRO remaining at the site is shown in Table 2; this concentration is below the approved cleanup level of 1,400 mg/kg. The sample location referenced in Table 2 is shown in Figure 3.

Table 2 – Maximum Contaminant Concentrations Remaining in Soil

Contaminant	Soil (mg/kg)	Sample Location	Date Sampled
GRO	1,340	P15-S10	09/09/2025

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index (HI) of 1 across all exposure pathways.

Based on a review of the environmental record, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3.

Table 3 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Subsurface Soil Contact	De Minimis Exposure	GRO remains in the subsurface below human health and ingestion levels in 18 AAC 75.341, Tables B1 and B2.
Inhalation – Outdoor Air	De Minimis Exposure	There are no known volatile compounds at the site.

Pathway	Result	Explanation
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no known volatile compounds at the site.
Groundwater Ingestion	Pathway Incomplete	Table C groundwater cleanup levels do not apply based on a demonstration that the site is underlain by continuous permafrost.
Surface Water Ingestion	Pathway Incomplete	There is no surface water at the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminants present in surface soil is below cleanup levels. Contamination is not expected to affect aquatic or terrestrial receptors.

Notes:

1. “De Minimis Exposure” means that, in DEC’s judgment, the receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination.
2. “Pathway Incomplete” means that, in DEC’s judgment, the contamination has no potential to contact receptors.

DEC Decision

Soil contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a “Cleanup Complete” designation on the Contaminated Sites Database.

DEC approval is required for movement or disposal of soil and/or groundwater subject to the Site Cleanup Rules, in accordance with 18 AAC 75.325(i). Since the cleanup at this site met the most stringent cleanup levels of 18 AAC 75.341, Tables B1 and B2 and 18 AAC 75.345, Table C, this letter will serve as the approval for future movement and disposal of soil associated with this release.

Informal Reviews and Adjudicatory Hearings

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC’s “Appeal a DEC Decision” web page <https://dec.alaska.gov/commish/review-guidance/> for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have questions about this closure decision, please feel free to contact me at (907) 262-8203, or email at jenny.gates@alaska.gov.

Sincerely,



Jenny Gates
Project Manager

cc: Jamie McKellar, DEC, Contaminated Sites Program
DEC, Division of Spill Prevention and Response, Cost Recovery Unit

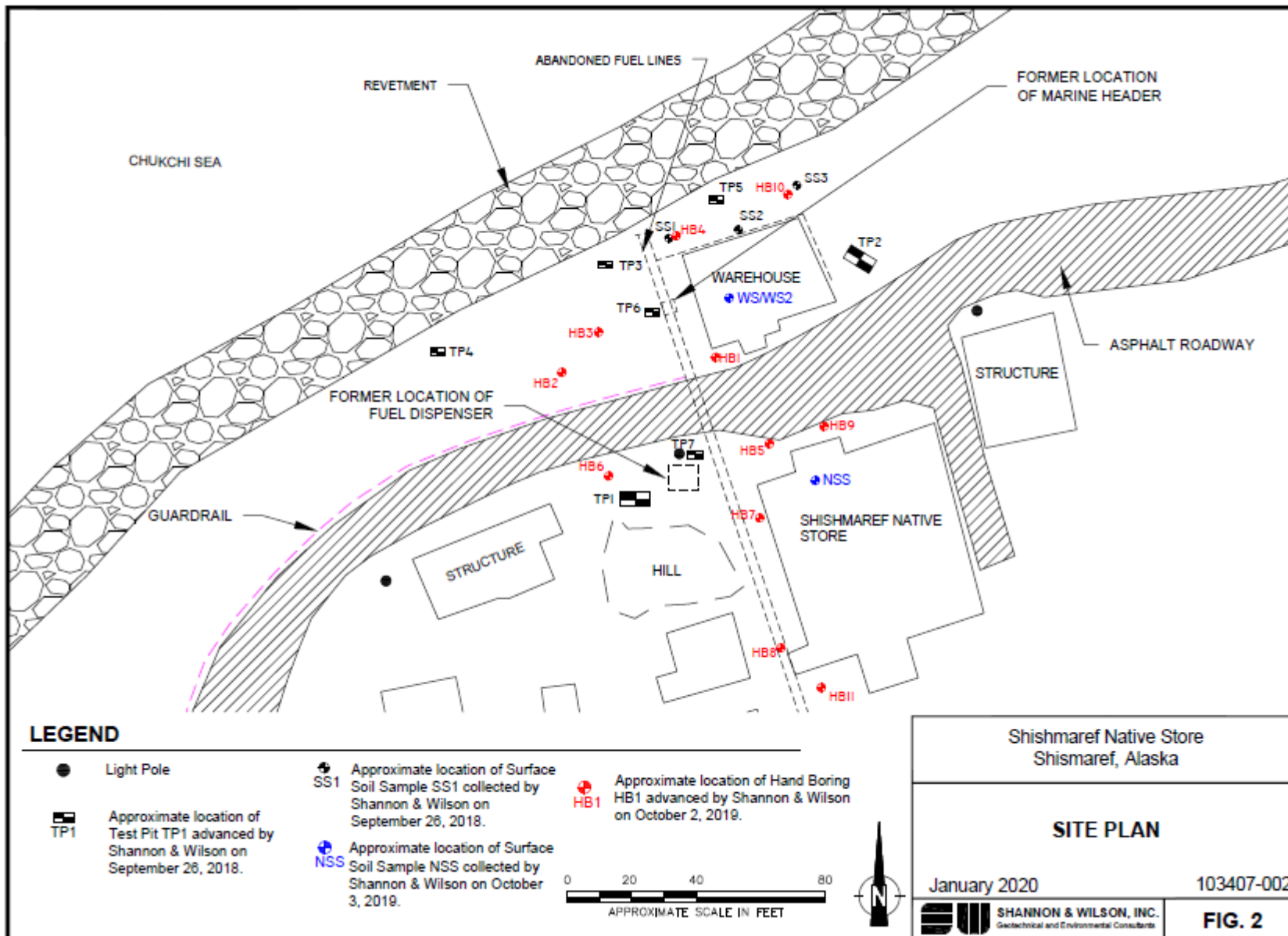


Figure 1. Shishmaref Native Store site vicinity/structures and 2018-2019 site characterization activities.
 Source: *Additional Site Characterization Native Store, Shishmaref, Alaska (January 2020)*. (Shannon & Wilson, January 2020).

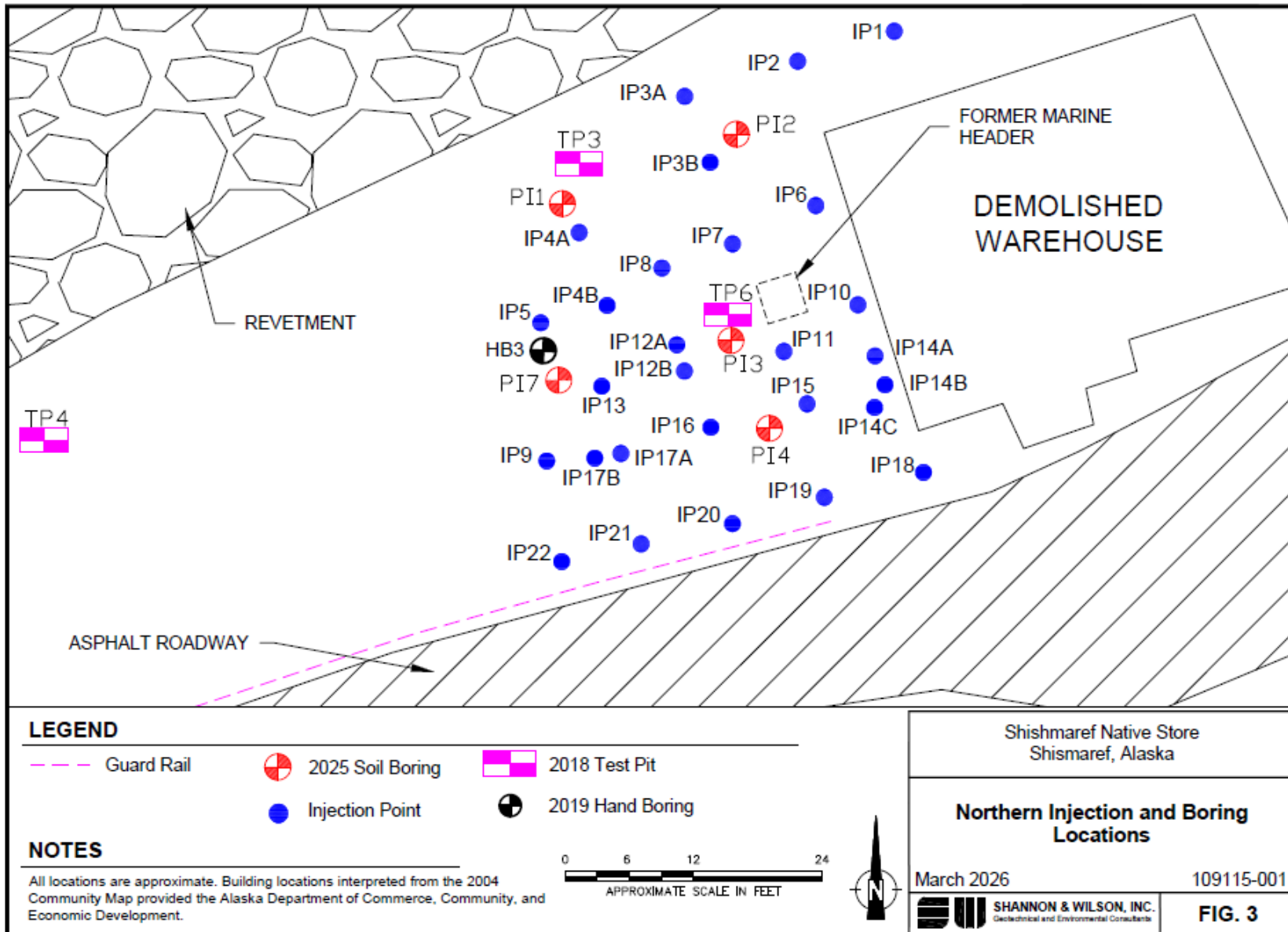


Figure 2. Shishmaref Native Store northern injection and soil boring locations.

Source: Work Plan for Remediation Activities, Shishmaref Native Store, Shishmaref, Alaska (Shannon & Wilson, March 2026).

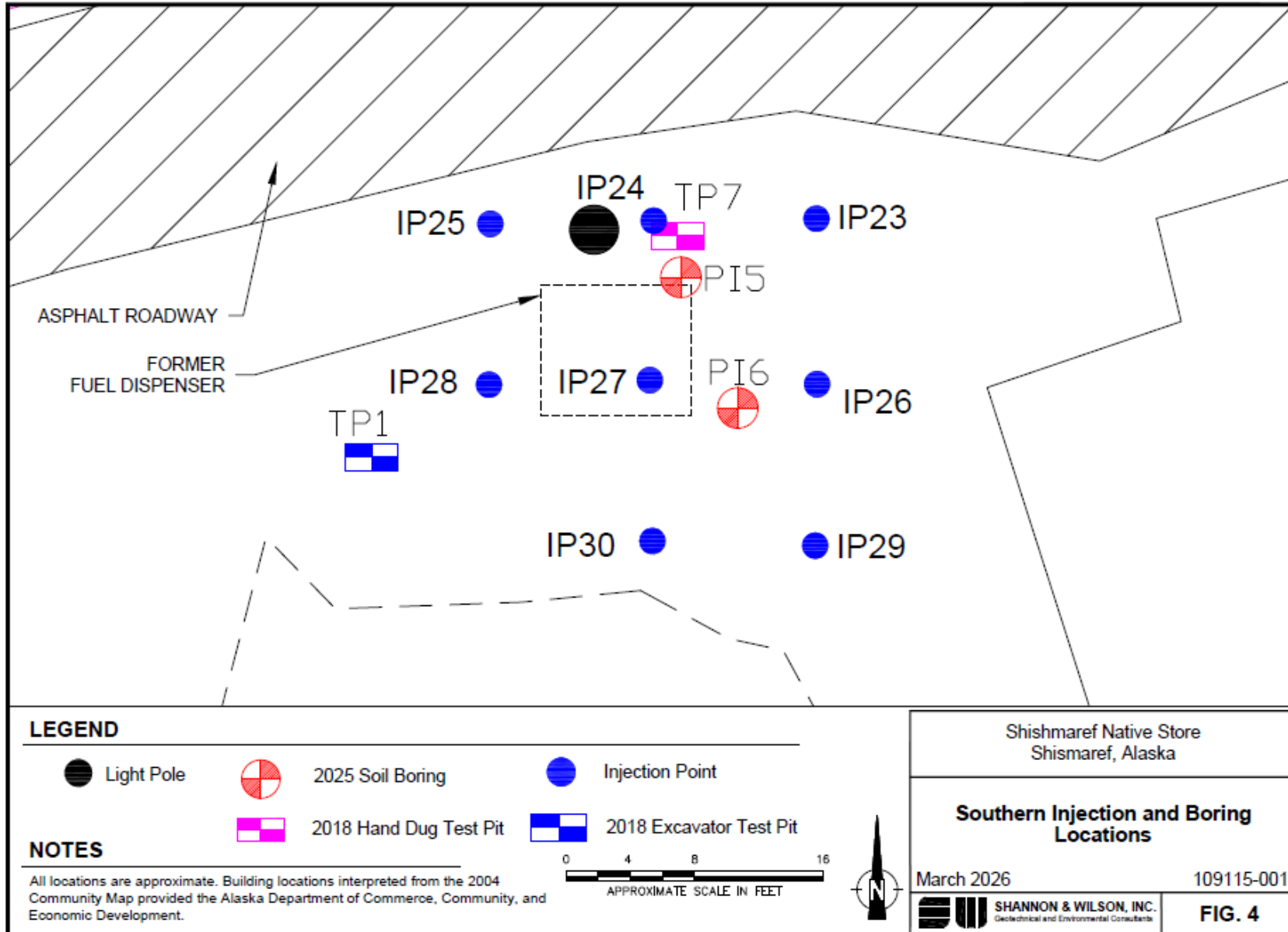


Figure 3. Shishmaref Native Store southern injection and soil boring locations.

Source: Work Plan for Remediation Activities, Shishmaref Native Store, Shishmaref, Alaska (Shannon & Wilson, March 2026).