THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE

Contaminated Sites Program
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File: 2661.38.009

November 16, 2021

ADOT&PF – Southcoast Region
Attn: Benjamin Storey
P.O. Box 112506
Juneau, AK 99811-2506

Re: Decision Document: **ADOT&PF Unalaska South Channel Bridge Midden Site**
Cleanup Complete Determination

Dear Mr. Storey,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the ADOT&PF Unalaska South Channel Bridge Midden Site located the southwest corner of the intersection of Airport Beach Road and Henry Swanson Drive, in Unalaska. 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 ADOT&PF Unalaska South Channel Bridge Midden Site, which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
ADOT&PF Unalaska South Channel
Bridge Midden Site
Airport Beach Road & Henry Swanson Drive
Unalaska, Alaska 99685

Name and Mailing Address of Contact Party:
Attn: Benjamin Storey
ADOT&PF Southcoast Region
P.O. Box 112506
Juneau, AK 99811-2506

DEC Site Identifiers:
File No.: 2661.38.009
Hazard ID.: 4507

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background

The South Channel Bridge Midden Site is located on the southwest corner of the intersection of Airport Beach Road and Henry Swanson Drive on Amaknak Island in southwest Alaska (Figure 1). Reportedly the location of a former World War II barracks building or warehouse, the Alaska Department of Transportation & Public Facilities (ADOT&PF) acquired the area in 2006 as a right of way when roads were rerouted by the ADOT&PF. Petroleum-contaminated soil was discovered during an archeological dig and pre-construction work for road realignment and bridge construction between Amaknak and Unalaska Islands. The source of the contamination is unknown.

Contaminants of Concern

During the assessment and remedial excavation at this site, soil samples were collected and analyzed for diesel range organics (DRO) and residual range organics (RRO) by method AK 102/103, volatile organic compounds (VOCs) by EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270C Select Ion Monitoring (SIM), and RCRA metals by EPA Method 6000/7000. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Diesel Range Organics (DRO)
- Naphthalene

Cleanup Levels

The site is non-arctic and is classified in the Over 40 Inch Zone. Naphthalene and diesel range organics were detected in the excavated soil above the applicable Method Two cleanup criteria for the site, established in 18 AAC 75.341(c), Table B1, and 18 AAC 75.341(d), Table B2, respectively.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
DRO	230
Naphthalene	0.038

mg/kg = milligrams per kilogram

Characterization and Cleanup Activities

Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program under 18 AAC 75.335 began in 2006. These activities are described below.

In 2006, assessment and remediation of the excavated area was performed to assess the vertical and horizontal extent of the petroleum hydrocarbon impact to soil. The excavation dimension was approximately 24 feet in length and varied in width from 9.5 feet to 14 feet. The depth ranged from approximately 3 inches to 24 inches. Approximately 18 cubic yards of soil were removed from the excavation area.

The excavated soils were segregated into potentially impacted and non-impacted soils based on olfactory and visual observations (odor, discoloration, etc.), and headspace screening measurements

using a photoionization detector (PID). The eight cubic yards of petroleum impacted soil was placed into a total of 16 one cubic yard super sacks filled to half capacity, labelled, and stored at the Unalaska airport on 10-mil thick reinforced polyethylene liner, and secured with a cover and weights to prevent infiltration by rainwater or wind damage. The remaining ten cubic yards of soils that were screened as non-impacted and classified as clean were transported to the midden storage facility, near Ounalashka Corporation Headquarters off Gillman Road. Geo-fabric was used to line the excavation, which was immediately backfilled with shot rock overburden so that the field crew could continue working in the area.

Six confirmation samples were collected from the sidewalls of the excavation; four of the samples at equidistant locations along the 24-foot lengths of the excavation, and one sample collected from the vertical center of each sidewall. These samples were analyzed for DRO, RRO, and VOCs. DRO was detected in four of the eight samples, ranging in concentrations from 17.1 to 32.8 milligrams per kilogram (mg/kg). RRO and VOCs were not detected.

Three soil samples were also collected from the super sacks containing the impacted soil. Sacks #1, 10, and 13 were sampled for DRO, RRO, VOCs and PAHs. Sack #1 was field estimated to contain the most highly contaminated soil, with analytical samples detecting DRO concentrations up to 4,560 mg/kg. Sacks #10 and #13 contained DRO concentrations of 327 mg/kg and 442 mg/kg, respectively. Naphthalene was the only VOC/PAH detected at 0.506 mg/kg. Other PAHs were nondetect in the excavated soils.

The 2006 Field Activities Documentation Report presented several options for waste disposal of the super sacks stored at the Unalaska Airport. The off-site disposal and treatment option was selected, and the 16 half-filled sacks were barged in a sealed conex to a permitted EPA landfill waste disposal facility in Arlington, Oregon. Email correspondence dating November 2007 documents the ADEC approved shipping and disposal of the super sacks to Columbia Ridge, permitted landfill EPA #ORD987173457.

All contaminants were compared to the most stringent 18 AAC 75.341, Tables B1 and B2, Method Two cleanup levels. Confirmation samples along the excavation boundaries demonstrate residual soil contamination at the site is below the most stringent cleanup levels as specified under 18 AAC 75.341. The maximum concentration of DRO in soil remaining on site is 32.8 milligrams per kilogram (mg/kg). RRO and VOCs, including naphthalene, were not detected in in any of the confirmation samples.

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 of one across all exposure pathways.

Based on a review of the environmental record, ADEC 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 ADEC'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 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Residual contamination remaining in surface soil (0 to 2 feet bgs) is below ADEC Method 2 most stringent soil cleanup levels.
Sub-Surface Soil Contact	De Minimis Exposure	Surface soil excavated to 2 ft bgs, confirmation samples of excavation base is below ADEC Method 2 most stringent soil cleanup levels. Exposure to any residual contamination in subsurface soil is not expected.
Inhalation – Outdoor Air	Pathway Incomplete	No volatile contaminants are present at the site.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Site is located in road right-of-way; no buildings are present at the site. No volatile or semi-volatile contamination remains in soil at concentrations expected to pose a vapor intrusion risk.
Groundwater Ingestion	Pathway Incomplete	Contaminated soil excavated up to 2 ft bgs, confirmation samples are below migration to groundwater soil cleanup levels, and do not pose a risk to groundwater.
Surface Water Ingestion	Pathway Incomplete	Residual contaminated soil is below migration to groundwater cleanup levels. Surface water located ~150 feet from the site but due to salinity is not considered a drinking water source.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Site is located in road right-of-way, wild food harvest at the site is not likely. Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminated soil excavated up to 2 ft bgs, confirmation samples are below migration to groundwater cleanup levels. Site is located in road right-of-way, and ecological receptors are unlikely.

Notes to Table 2: "De Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

ADEC Decision

Soil contamination at the site has 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, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with 18 AAC 75.325(i). A "site" as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)

2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 20 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact me at (907) 451-2181, or email at cascade.galasso-irish@alaska.gov.

Sincerely,

Cascade Galasso
Project Manager

cc: Spill Prevention and Response, Cost Recovery Unit

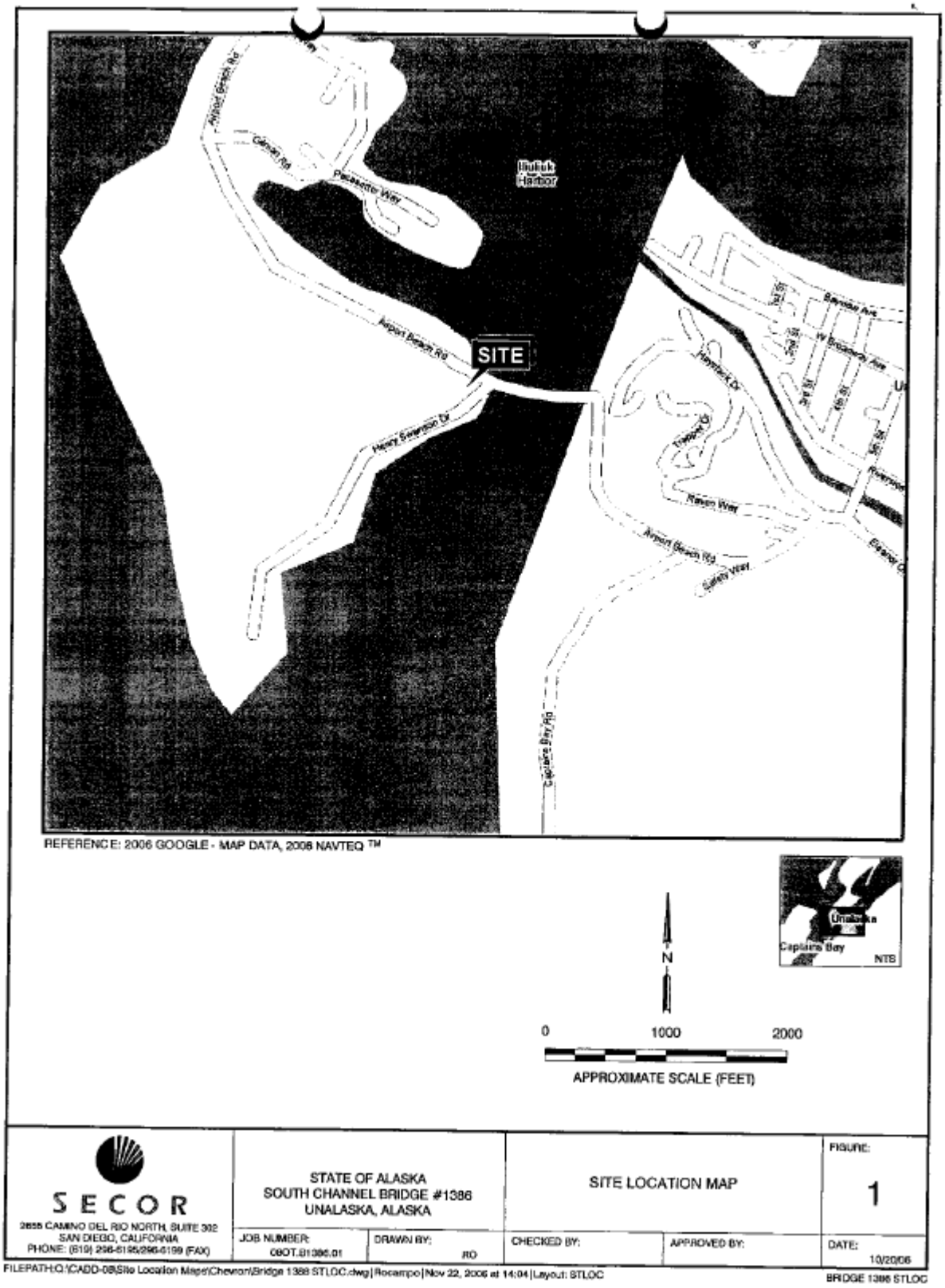

FIGURE 1 - SITE LOCATION MAP FROM SECOR FIELD ACTIVITIES DOCUMENTATION REPORT, DATED NOVEMBER 2006

FIGURE 2 - AERIAL VIEW OF THE SITE LOCATION IN DUTCH HARBOR, ALASKA