THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 1508.38.025

November 25, 2016

Via Electronic Mail
Mr. Eric Hershey
ADOT&PF Statewide Public Facilities
P.O. Box 196900 MS-2525
Anchorage, AK 99519-6900

Re: Decision Document: ADOT&PF Haines Maintenance Station Vehicle Repair Shop
Cleanup Complete Determination

Dear Mr. Hershey:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the ADOT&PF Haines Maintenance Station Vehicle Repair Shop located at 720 Main Street in Haines, Alaska. 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 new 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 Haines Maintenance Station Vehicle Repair Shop, which is located in the ADEC office in Juneau, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
DOT Haines Maintenance Sta. Vehicle Repair Shop
720 Main Street
Haines, Alaska 99827
Latitude 59.236438, Longitude -135.456844
Section 27, T30S, R59E, Copper River Meridian

Name and Mailing Address of Contact Party:
Matt Boron, Station Manager
ADOT&PF Southcoast Region
Haines, AK 99827
matthew.boron@alaska.gov

ADEC Site Identifiers:
File No.: 1508.38.025
Hazard ID.: 26276

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
The Alaska Department of Transportation & Public Facilities (ADOT&PF) Haines Maintenance Station is located at 720 Main Street in Haines, Alaska. The Borough of Haines Public Works (HPW) provides drinking water and sewer service to the site and to the area. Haines Borough ordinances require residential homes and commercial facilities to connect to the HPW systems. Site investigation found that subsurface soil generally consisted of brown to red sand with silt and gravel.

In 1999 two 2,000 gallon regulated underground storage tanks (USTs) were closed by removal at the site. Petroleum contamination was found to extend from the surface to four beet below ground surface (BGS) where groundwater was found. The contamination extended two feet further down to a depth of six feet BGS in the southeast corner of the excavation. The UST removal generated fifty cubic yards of contaminated soil that was transported to the United Soil Recyclers in Juneau for thermal remediation.

In 2007, soil characterization test pits were advanced in conjunction with the closure of a heating oil tank and monitoring wells were installed to characterize groundwater contamination from the former UST release. The groundwater monitoring data obtained for ADEC in 2011 determined that groundwater flow at the Site is generally southwest and any residual contamination from the UST release was stable and at low concentrations. In September 2012, ADEC determined that cleanup was complete and closed the site.

In conjunction with installing upgrades to a vehicle hydraulic lift apparatus in the maintenance shop in 2007, ADOT&PF personnel excavated soil from the floor of the shop surrounding the lift. The contaminated soil was stored between layers of polyethylene material on-site in the stockyard on the northeast quarter of the property. Soil characterization samples were not collected from the excavation or the stockpile. The contamination was reported to ADEC on October 2, 2013.

In January 2014, ADOT&PF submitted a work plan to sample the stockpiled soil for contamination. The three stockpiles of soil were maintained in dry storage and the total volume was estimated at 150 cubic yards. In conjunction with ADEC approval of the stockpile sampling plan (sampling took place in May 2014), ADEC requested ADOT&PF submit a work plan to investigate soil and groundwater conditions for the petroleum release site at the Maintenance Shop.

Contaminants of Concern
During the site investigation and cleanup activities at this site, samples were collected from soil and from groundwater and were analyzed for diesel (DRO), and residual (RRO) range hydrocarbons by Alaska Methods 102 and 103, volatile organic compounds (VOCs) by EPA Method 8260B. Based on these analyses, the following contaminant was detected above the applicable cleanup levels and is considered the Contaminants of Concern at this site:

- Diesel Range Hydrocarbons (DRO)

Cleanup Levels
Title 18 Alaska Administrative Code (AAC) 75.340 authorizes ADEC to set soil cleanup levels for this site. ADEC has developed cleanup regulations for oil and other hazardous substances called the "site cleanup rules" under 18 AAC 75.325- 18 AAC 75.390. The most stringent levels of all applicable pathways under Method Two soil cleanup levels for the over 40-inch precipitations zone, established in 18 AAC 75.341(c), Table B1, and 18 AAC 75.341 (d), Table B2 apply to the Site.

The groundwater criteria list in Table C at 18 AAC 75.345(b)(1) also apply, and surface water as referenced in 18 AAC 75.345(f) must meet the Water Quality Standards found in 18 AAC 70. Groundwater was investigated for contamination and soil cleanup levels protective of migration to groundwater and surface water apply to this site. The following Table 1 displays the contaminants of concern cleanup levels for completed pathways at this site:

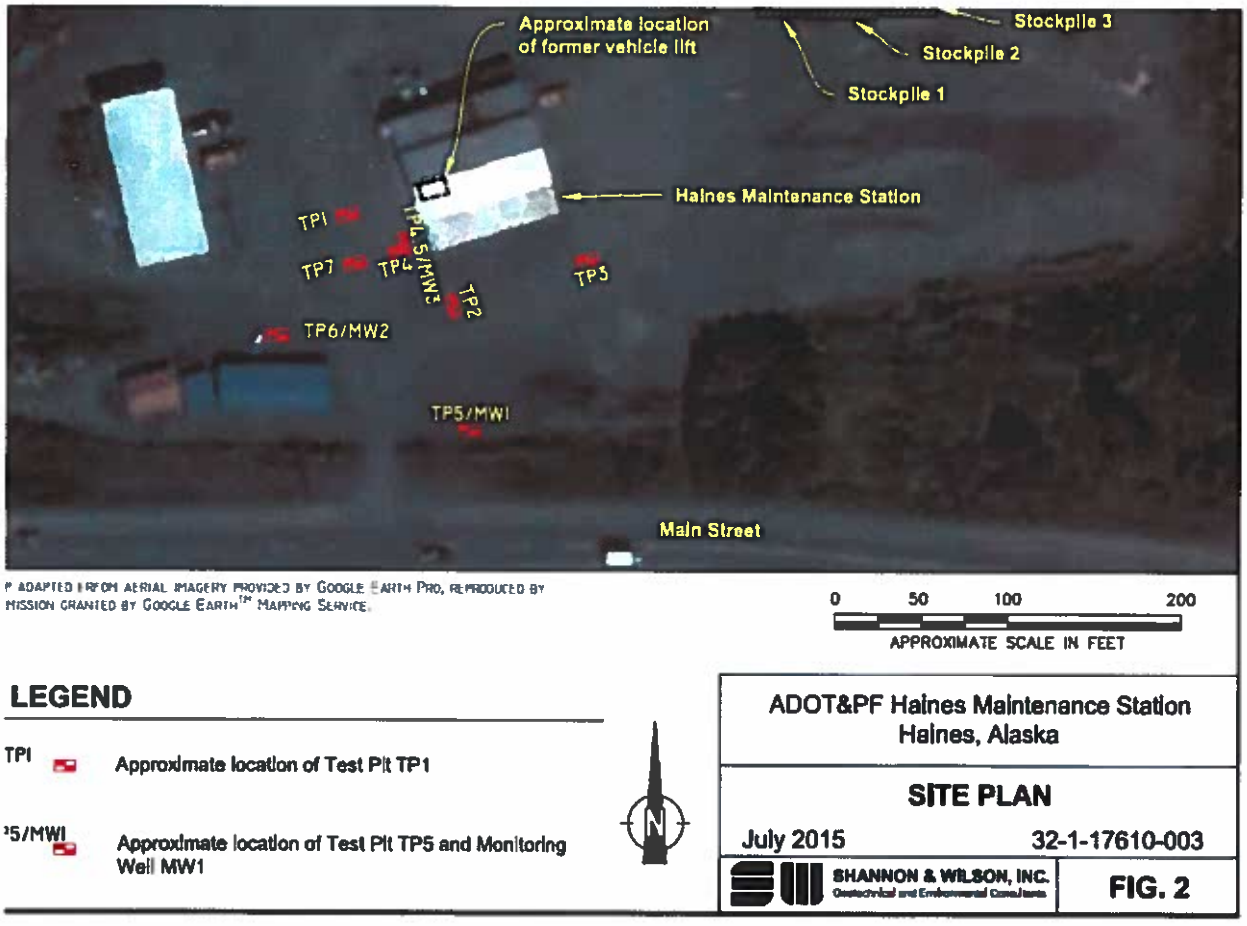
Table 1. Approved Cleanup levels

Chemical	Soil	Groundwater
DRO	230 mg/kg	1.5 mg/L

mg/kg = milligrams per kilogram
mg/L = milligrams per liter

Characterization and Cleanup Activities

Characterization and cleanup activities at the site were conducted under the regulatory authority of the Contaminated Sites Program began in 2013. The stockpile sampling plan was approved by ADEC in an electronic message dated January 22, 2014. In a letter dated December 5, 2014, ADEC approved a work plan for the site characterization activities that are described below.



In the May 2015 site characterization, eight test pits, TP1 through TP7 and TP4.5, were advanced to the groundwater interface in locations downgradient of the vehicle lift, which is inside the maintenance building. One analytical sample each was collected from test pits TP1, TP2, TP3, TP4, TP4.5 and TP7. A total of six

confirmation soil samples and a field duplicate were collected from the test pits at various depths based on photoionization field screen readings, with the exception of TP4.5. The sample in pit TP4.5 was collected at a depth of 6 foot BGS.

Groundwater monitoring wells were installed in test pits TP5, TP6, and TP4.5 in locations down gradient of the vehicle lift. While excavating test pit TP4 to install well MW3, an abandoned sewer line was discovered. Therefore, test pit TP4.5 was advanced adjacent to test pit TP4 to install well MW3. Static groundwater levels measured in the three wells ranged from 5.66 feet BGS in well MW1 to 7.23 feet BGS in well MW2. Based on the May 2015 groundwater measurements and survey data, groundwater flow at the site is to the west/northwest.

Three groundwater samples and one duplicate were submitted for analytical testing. DRO was detected in the sample from well MW3 and its duplicate sample MW4 had the highest concentration of 0.968 milligrams per liter (mg/L), which is less than the cleanup level. A total of eleven VOCs were detected in the water sample at concentrations below cleanup levels and the remaining analytes were below both the laboratory reporting limits and the cleanup levels. Analytical results for the two other samples were below the laboratory reporting limit and the cleanup level for all analytes.

With the exception of a soil sample collected from a depth of about 2.5 feet BGS in test pit TP3, the soil and groundwater samples collected as part of the site characterization activities did not contain concentrations of contaminants above the applicable cleanup levels. Test Pit TP3 was located in an area where ADOT&PF vehicles and equipment are washed. Based on the relatively shallow depth of contamination in Test Pit TP3 and distance from the former vehicle lift, it appears this impacted soil is not associated with the lift. Likewise, the current data indicate the suspected former release(s) at the indoor vehicle lift have not impacted soil and/or groundwater outside of the Maintenance Shop's footprint.

The greatest result of DRO concentration was in the sample collected from test pit TP3 and its field duplicate with a result of 234 mg/kg and 280 mg/kg respectively. Table 2 displays the highest levels detected in soil remaining at the site, the sample depth, and the Method Two (M2) Migration to Groundwater (MTG) cleanup levels. Levels shown in bold are above the applicable cleanup levels and represent the contaminant(s) of concern.

Table 2 the greatest levels of analytes detected in remaining soil at the site.

Hydrocarbon range and compounds of concern	Greatest level in soil mg/kg	Sample name and depth below the ground surface	M2 MTG Cleanup Levels mg/kg
DRO	**280**	TP3 at 2.5 feet BGS	260

Composite soil samples were also collected from three stockpiles of contaminated soil located on-site, northeast of the Maintenance Station. Samples were submitted for laboratory analysis of the synthetic precipitation leaching procedure (SPLP) DRO. The results of the sampling were below the laboratory reporting limit for SPLP DRO and were below the groundwater cleanup levels. Based on the soil stockpile analytical results, ADEC approved a work plan for land spreading the soil not within 100 feet of a water body on a property adjacent to and north of the maintenance facility. In conjunction with the land spreading, the three on-site wells will be decommissioned in accordance with ADEC Monitoring Well Guidance dated September 2013. ADOT&PF submitted to ADEC photographic evidence of completing these two closure tasks in March, 2016.

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 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).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below ingestion cleanup levels.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Characterization sampling of soil and groundwater detected no VOCs.
Groundwater Ingestion	Pathway Incomplete	Groundwater is not a potential drinking water source. Groundwater had results below the cleanup level.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the area.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in flora or fauna.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.

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 and groundwater contamination at the site have been cleaned up to concentrations generally 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 off-site requires ADEC 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 the site figure herein.)

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 future 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 15 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 contact the ADEC project manager, Bruce Wanstall at (907) 465-5210.

Sincerely,

Bruce Wanstall

Bruce Wanstall
Remedial Project Manager
Contaminated Sites Program

cc: Matthew Boron, Haines Foreman & Airport Manager, ADOT&PF Southcoast Region, via email
Sally Schlichting, ADEC Unit Manager, CS Program, via email
ADEC SPAR Cost Recovery, via email