



# Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE Contaminated Sites Program

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File: 780.38.010

January 9, 2019

<u>Electronic Delivery Only</u> Michael McCrum Bureau of Land Management 222 West 7th Avenue, #13 Anchorage, AK 99513-7504

#### Re: Decision Document - BLM Tanana Lot 3 Former Tank Farm Cleanup Complete Determination

Dear Mr. McCrum:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the BLM Tanana Lot 3 Former Tank Farm. 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 BLM Tanana Lot 3 Former Tank Farm, which is located in the ADEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

**Site Name and Location:** BLM Tanana Lot 3 Former Tank Farm White Alice Site Road Tanana, Alaska 99777

**DEC Site Identifiers:** File No.: 780.38.010 Hazard ID.: 3804 Name and Mailing Address of Contact Party: Michael McCrum Bureau of Land Management 222 West 7th Avenue, #13 Anchorage, AK 99513-7504

**Regulatory Authority for Determination:** 18 AAC 75

#### Site Description and Background

The site is located in Tanana, Alaska along the north bank of the Yukon River and is described as Lot 3 U.S. Survey 4104 (Figure 1). The site was the former location of a tank farm operated by Jack Coghill's Nenana Fuel Company. Fuel storage and distribution activities in the 1970s and 1980s are believed to be responsible for the contamination on the property.

The site has been the subject of various assessment and cleanup efforts since the early 1990s. During a site visit in 1991 by the Bureau of Land Management (BLM) staff, several fuel tanks, shacks, burned buildings, a trailer van, and miscellaneous debris were observed.

The Preliminary Staff Report described various fuel storage containers and other solid wastes throughout the southern portion of the site. The fuel storage containers included three rail tank cars, a 900-gallon gasoline delivery truck tank, two 300-gallon to 500-gallon above ground tanks, and approximately fifteen 55-gallon drums and twenty 5-gallon drums spread randomly throughout the site. It is presumed that these tanks were empty or contained residual amounts of product at the time of the site visit. Other solid waste included portions of an airplane, radio bodies, and discarded batteries. The tanks and other debris documented in the staff report were apparently removed during a site cleanup at some point between July 1995 and September 1997. The Site Assessment and Release Investigation were conducted by ESI under contract to BLM in 1997. A grid-based field screening and sampling scheme was developed that resulted in the identification of several areas of petroleum-contaminated soil around the southern portion of the property.

In 2003, Wilder conducted a removal action, under contract to BLM, to excavate, transport off site, and treat/dispose the contaminated soil identified by the 1997 investigation. Approximately 125 cubic yards of petroleum-contaminated soil were excavated from six different areas and removed for off-site treatment. Confirmation samples collected from the limits of excavation in these areas showed diesel-range organics (DRO) exceeding its cleanup level in four of the 20 samples collected. These four samples were collected from three excavation areas (Area 4, Area 5, and Area 6; Figure 2).

The BLM provided several documents describing previous site assessment and cleanup efforts at the site: Preliminary Staff Report (BLM, July 1995), Site Assessment and Release Investigation (Environmental Systems, Inc.; ESI, April 1998), and Tanana Tank Site Soil Removal Report (Wilder, 2004).

In 2005 and 2006, the BLM contracted Shannon and Wilson to perform further removal and site characterization efforts to address residual contaminated soil and an abandoned fuel pipeline on the site. The 2005 work consisted of excavating and stockpiling fuel-contaminated soils and removing the on-site portions of the pipeline. The 2006 work consisted of stockpile decommissioning, removal of the remaining off-site portions of the pipeline, and completing other miscellaneous site cleanup activities.

In 2014, the BLM submitted a request to ADEC to issue a no further action letter. The ADEC replied stating that further action should be taken to characterize a single sampling point identified in the 2006 work efforts (PL12/13) which showed elevated PID readings and levels of GRO, DRO, Benzene and Toluene. This remaining area of concern was beyond the southwestern property boundary adjacent to the roadway at the terminus of a former abandoned pipeline.

### **Contaminants of Concern**

During the site investigation and cleanup activities at this site, samples were collected from soil and analyzed for petroleum contamination. 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)
- Gasoline Range Organics (GRO)
- Benzene

### **Cleanup Levels**

Media potentially impacted by contaminants of concern include surface soil, subsurface soil, and surface water. Applicable cleanup levels are based on 18 AAC 75 Table B1. Method Two – Soil Cleanup Levels Table B2. Method Two - Petroleum Hydrocarbon Soil Cleanup Levels for soil, Under 40 Inch Zone, Migration to Groundwater values (ADEC, 2018). The most stringent Method Two cleanup levels (Migration to Groundwater) were applied. Groundwater may be present but there are no reported wells on the property and no groundwater was encountered during sampling or removal actions.

### Table 1 – Approved Cleanup Levels, Under 40-inch Zone, Method 2

Contaminant	Migration to Groundwater (mg/kg)
DRO	250*
GRO	300*
Benzene	0.022**
Toluene	6.7**

mg/kg = milligrams per kilogram \*Table B2, Method 2 \*\*Table B1, Method 2

### **Characterization and Cleanup Activities**

In 2016, BLM staff mobilized to the site to collect new data for the PL12/13 sampling location at which elevated PID and contaminant readings were previously detected. Soil samples were also collected, at the same depth, at a background location 10 feet to the east. The goal of this work was to analyze the soil for DRO, GRO, Benzene and Toluene at the location identified in the 2006 Shannon and Wilson Tanana Remediation Report.

There are no concentrations of contaminants remaining onsite that are above the most stringent DEC Method 2 cleanup level.

## **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.

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	Pathway Incomplete	Contamination is not present in sub-surface soil (2 to 15 feet below ground surface).
Inhalation – Outdoor Air	Pathway Incomplete	Contamination is not present that could cause exposure through the inhalation of outdoor air.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no existing buildings on the property.
Groundwater Ingestion	Pathway Incomplete	Remaining soil contamination is below migration to groundwater cleanup levels and DEC has determined that the migration to groundwater pathway is incomplete.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	There is no contamination on site that would present an exposure risk to ecological receptors.
Exposure to Ecological Receptors	Pathway Incomplete	There is no contamination on site that would present an exposure risk to ecological receptors.

Table 2 – Exposure Pathway Evaluation

**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**

Based on the results of past and recent characterization efforts, it appears that surface and subsurface contamination which resulted from the fueling operation has been removed and the site exhibits levels of contaminants below the ADEC cleanup levels. The remaining area of concern at the former abandoned pipeline terminus extending off of the southern property boundary and site-wide conditions have levels of contaminants below the established ADEC cleanup levels found in 18 AAC 75 Table B1, Method Two – Soil Cleanup Levels and Table B2, Method Two - Petroleum Hydrocarbon Soil Cleanup Levels, Under 40 Inch Zone, Migration to Groundwater values.

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 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 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 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 date after the section 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 john.obrien@alaska.gov.

Sincerely,

John O'Brien Project Manager

Note: This letter is being transmitted to you in electronic format only. If you require a paper copy, let us know and we will be happy to provide one to you. In the interest of reducing file space, the Division of SPAR/Contaminated Sites Program is transitioning to electronic transmission of project correspondence.

cc: Spill Prevention and Response, Cost Recovery Unit Kevin Church, BLM AFS Larry Lau, Tantikil Unlimited, Inc. Eric Breitenberger, ADEC

# Update of maps

Figure 1 – Tanana, AK with Project Location



Background USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National

