



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Environmental
Conservation

Spill Prevention and Response
Contaminated Sites

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File No.: 1530.38.011

September 8, 2021

Michael Macmillan
CEPOA-PM-C-FUDS
Alaska District U.S. Army Corps of Engineers
PO Box 6898
JBER, AK 99506-6898

Re: Decision Document: **Yakutat AFB Seaplane Base Slough Cleanup Complete Determination**

Dear Mr. Macmillan:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Yakutat Formerly Used Defense Site (FUDS) Area of Concern (AOC) G4 – Seaplane Base Slough located north of Point Carrew Road, approximately 0.5 miles from the Point Carrew (Ocean Cape) Road junction and south of Monti Bay. 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 Yakutat AFB Seaplane Base Slough, 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:

Yakutat AFB Seaplane Base Slough
North of Carrew Point Road
Yakutat, Alaska 99689

Name and Mailing Address of Contact Party:

Mike Macmillan
CEPOA-PM-C-FUDS
Alaska District U.S. Army Corps of Engineers
PO Box 6898
JBER, AK 99506-6898

DEC Site Identifiers:

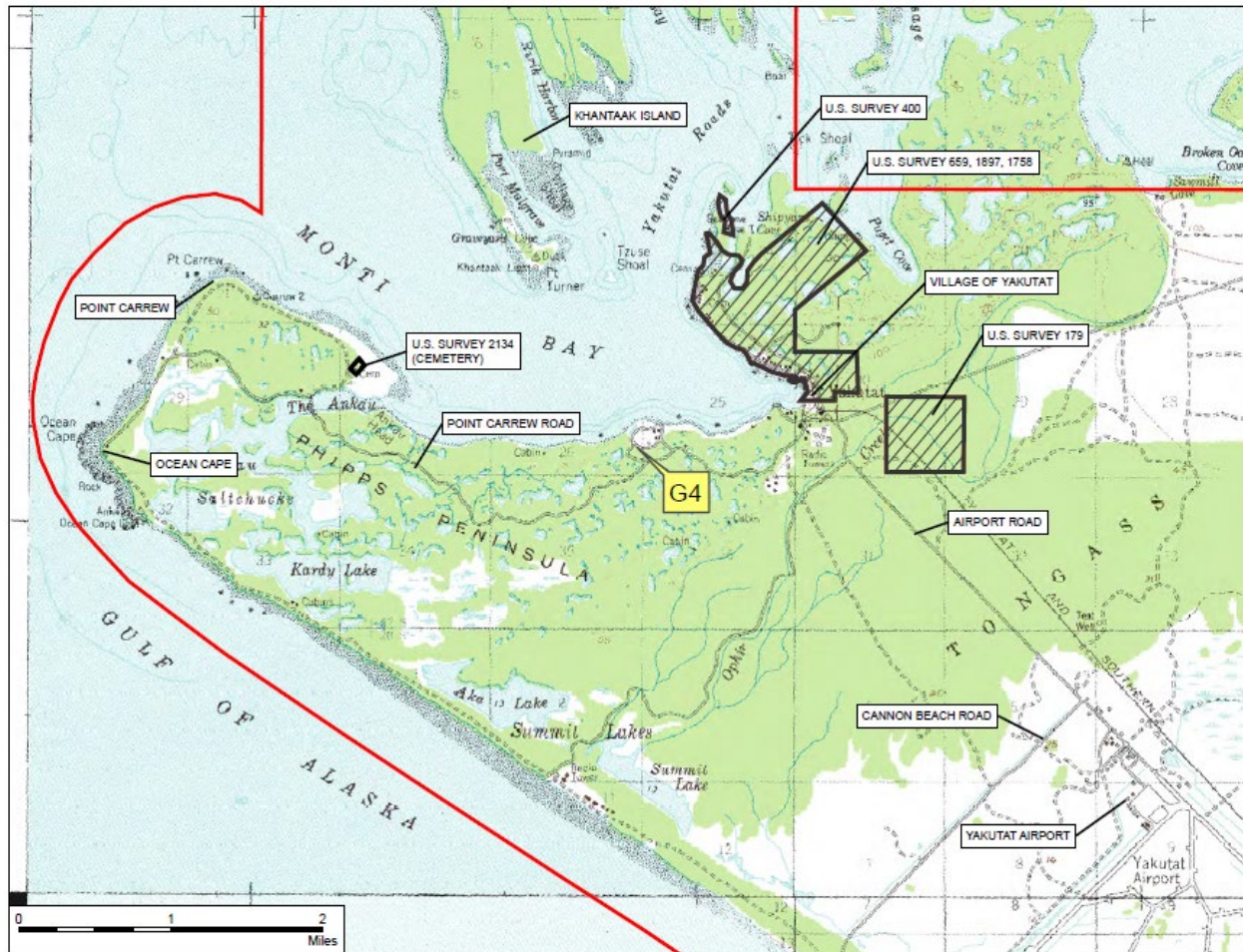
File No.: 1530.38.011
Hazard ID.: 3273

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

Yakutat, Alaska is approximately 225 miles northwest of Juneau and 380 miles southeast of Anchorage, Alaska at 59° 32' 33" N Latitude, 139° 45' 48" W Longitude (Section 30, Township 27 South, Range 34 East, Copper River Meridian). Located at the mouth of Yakutat Bay, the community is bounded by the Wrangell-Saint Elias Mountains and Yakutat Bay to the north, the Tongass National Forest to the south and east, and the Gulf of Alaska to the west (Figure 1). The FUDS sites, scattered around the Yakutat Air Base, are not connected via road to other permanent Southeast Alaska communities, and are only accessible by air or water.



The Yakutat Air Base was intended as an advanced airfield supporting pursuit and bombardment aircraft against Japanese invasion forces. However, as western Aleutian bases expanded and the Japanese were stopped on Attu and Kiska, its military value diminished significantly, and no aircraft were permanently assigned. Instead, the base served as a ferrying post and temporary station for aircraft squadrons and as a refueling stop between the 48 contiguous states and points in Alaska.

In December 1943, after the Japanese were expelled from the Aleutians, military activities were gradually reduced with personnel and equipment being transferred elsewhere. In April of 1944, the Yakutat Air Base was placed in caretaker status until the end of the war. A similar reduction took place at the seaplane base, which was officially closed on July 22, 1944.

The Yakutat Air Base was declared surplus by the Army in December 1945 and ceased operations in 1946. On December 1, 1945, the CAA assumed responsibility for maintenance and operation of the airfield, leading to the transfer of the airfield and its associated facilities from the Army to CAA on April 4, 1947. The improvements, equipment, and materials that were not transferred to the CAA were declared excess by the War Department to the War Assets Administration for disposal in June 1948, pursuant to the Surplus Property Act of 1944.

The Minor Naval Air Facilities (Seaplane Base) Slough, also referred to as the Seaplane Base or Area of Concern (AOC) G is located on Monti Bay. The seaplane base was constructed between 1942 and 1943 to dock, house, and repair military floatplanes. The site is located north of Point Carrew Road, approximately 0.5 miles from the Point Carrew (Ocean Cape) Road junction.

In 2000 a single drum was reported by a member of the public in a slough near private property. Based on the 1942 Minor Naval Air Facilities maps, it was determined that this slough was part of a drainage system surrounding the seaplane base taxiway. Because the drum was rusted with no identifiable markings or properties, was in middle of the project area and there were no known other potential sources of the drum it was assumed to be related to Yakutat Air Base WWII activities and FUDS eligible. This drum location was created into an environmental site and referred to as Area of Concern (AOC) G4.

Contaminants of Concern

COCs at the site are diesel range organics (DRO), and arsenic for the sediment.

- DRO
- Arsenic

Cleanup Levels

Analytical data for soils was compared to the Title 18 Alaska Administrative Code (AAC) Chapter 75 Section 341 (18 AAC 75.341) (c) Table B1 cleanup levels applicable to the “Over 40 Inch Zone” for all CoCs. The most stringent of the cleanup levels were used for comparison.

Contaminant	Soil (mg/kg) Migration to Groundwater
DRO	230
Arsenic	0.2

Characterization and Cleanup Activities

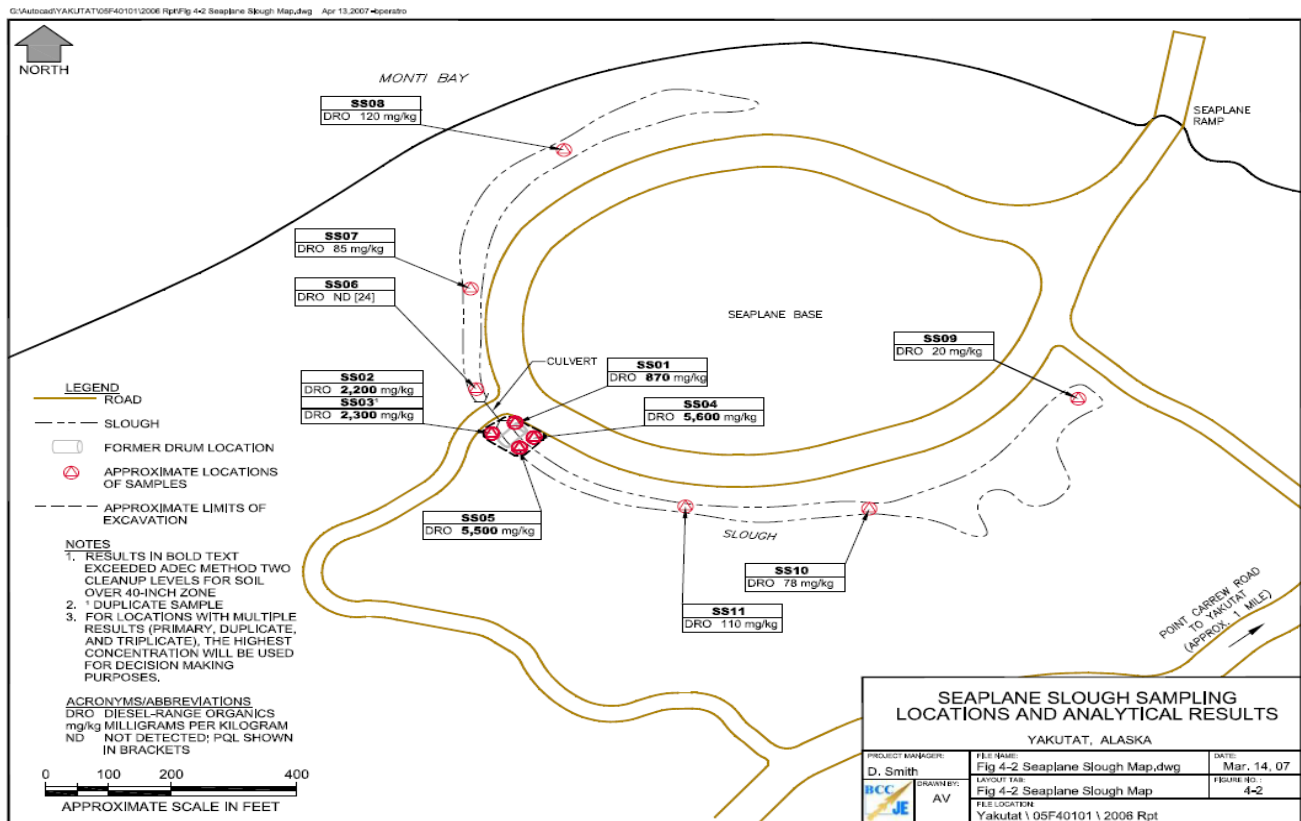
During a 2000 investigation, co-located surface water and sediment samples were collected 14 ft southeast of the culvert end, next to the submerged drum, to determine if contaminants had been released. The slough was 1.5 to 2 ft deep by 15 ft wide and partially overgrown with alders. The slough bottom was covered with 0.5 ft of decayed organic matter, and water flow within the slough was indiscernible. The surface water sample was clear with a brown tint. The sediment sample was collected from 4 to 8 inches below the slough bottom and consisted of gray organic sand and silt. Petroleum sheen surfaced when bottom sediment layers were disturbed, and the sediment sample had a strong petroleum odor. Sediment sample analytical results indicated Diesel Range Organics (DRO) concentration of 1,700 mg/kg. Arsenic was detected at a concentration of 22 mg/kg, which exceeded the established regional background concentration for soil of 11.6 mg/kg but is still considered to be naturally occurring.

The surface water was sampled for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Volatile Organic Contaminants (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs) pesticides and Resource Conservation and Recovery Act (RCRA) metals. The only analyte detected in the surface water sample was barium at 7 µg/L; however, barium was not retained as a contaminant of concern in surface water because similar concentrations were found in other nearby surface water bodies that were determined to be naturally occurring (USACE 2003). VOCs and PAHs were not detected.

As part of a wider 2006 FUDS Yakutat Remedial Investigation, the 55-gallon drum and approximately 150 gallons of contaminated sediment were successfully removed from the Seaplane Base Slough. Excavation activities were ceased vertically when a clay layer was encountered approximately 3 ft below the sediment or about 5 ft below the water surface (water in the slough was approximately 1.5 to 2 ft deep prior to excavation). The clay layer is most likely a confining layer acting as a barrier for migrating contamination. During the removal action, the sediment had a petroleum sheen and a moderate to strong petroleum odor. A sheen was not observed on the water surface in the slough during excavation activities. Five analytical samples were collected near the drum removal and sediment excavation area and tested for DRO. The DRO concentrations ranging from 870 mg/kg to 5,600 mg/kg. Three sediment samples were collected downgradient of the drum, and three samples were collected upgradient of the drum. The upgradient and downgradient sediment samples were all below Migration to Groundwater Cleanup Levels (MTGW CLs) (ND-120 mg/L).

No ADEC cleanup levels exist for DRO in sediment. For comparison purposes only, the DRO in sediment can be compared to ADEC Method Two Migration to Groundwater (MTGW) cleanup levels (230 mg/kg). The three upstream sediment samples and the three downstream sediment samples were below the ADEC MTGW cleanup levels. All DRO sediment samples including the barrel and excavation site were below ADEC Method Two Human Health Ingestion (8250 mg/L) and Inhalation (12500 mg/L) cleanup levels.

Although the sediment sample results at the barrel removal site are above ADEC MTGW cleanup levels, the contamination is delineated by upstream and downstream sample results. Furthermore, the surface water shows no sign of impacts from the DRO contamination.



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	Pathway Incomplete	No contamination in surface soil.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is under water and below the most conservative 18

		AAC 75 ingestion and inhalation human health cleanup levels.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the sub-surface but is below inhalation and human health cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No buildings are present within 30 feet of the site.
Groundwater Ingestion	Pathway Incomplete	No evidence of groundwater impacts was observed at this site.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site. Contaminants were not detected except for barium. Barium is naturally occurring.
Wild and Farmed Foods Ingestion	Pathway Incomplete	CoC's are not bioaccumulative.
Exposure to Ecological Receptors	De-Minimis Exposure	The remaining contamination is of a minimal volume and concentration that is unlikely to adversely impact ecological receptors.

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 this site has been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. There remains DRO contamination above MTGW CLs in the soil beneath the slough, however the contamination is of low volume and concentration and is considered de-minimis. Surface water adjacent to the DRO exceedance was sampled for GRO, DRO, VOCs, PAHs, PCBs pesticides and RCRA metals and all results were non-detect. 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.
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 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.

Please feel free to contact me at (907) 269-7528 or darren.mulkey@alaska.gov if you have any questions.

Sincerely,

Darren Mulkey
Environmental Program Specialist

cc: Spill Prevention and Response, Cost Recovery Unit
Melinda Brunner, ADEC