



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Environmental
Conservation

SPILL PREVENTION & RESPONSE
Contaminated Sites Program

610 University Avenue
Fairbanks, Alaska 99709
Main: 907.451.2143
Fax: 907.451.2155
www.dec.alaska.gov

File No.: 1530.38.011

July 16, 2024

Electronic Delivery Only

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

Subject: **DECISION DOCUMENT: No Further Action**
Yakutat AFB Point Carrew Garrison Operating Unit, Area of Concern C6

Dear Mr. MacMillan,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the Yakutat AFB Point Carrew Garrison Operating Unit (OU), Area of Concern (AOC) C6 / Point Carrew Garrison Tank in Yakutat, 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 information becomes available that indicates residual contaminants may pose an unacceptable risk.

This No Further Action determination is based on the administrative record for the Yakutat AFB Point Carrew Garrison OU maintained by DEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply for AOC C6. The Point Carrew Garrison site will remain active on DEC's Contaminated Sites Database until AOC C2, the Point Carrew Drum Dump, meets closure criteria.

Site Name and Location

Yakutat AFB Point Carrew Garrison OU
Area of Concern C6
59°33'1.97"N, 139°50'21.6"W

DEC Site Identifiers

File No. 1530.38.011
Hazard ID: 1986

Name and Mailing Address of Contact Party

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

Regulatory Authority for Determination

18 Alaska Administrative Code (AAC) 75

Site Description and Background

The Point Carrew Garrison facilities (**Figure 1**) were built by the Civil Aeronautics Administration (CAA) (now known as the Federal Aviation Administration) and were subsequently taken over by the United States Air Force for military use during World War II (approximately 1940 to 1946). A 50,000-gallon, above ground wood-stave reserve diesel fuel tank was installed at AOC C6, located on the south side of Point Carrew Road. The tank and associated piping were removed at some time in the past.

Contaminants of Concern

During the site investigation and cleanup activities at this site, samples were collected from soil and groundwater and analyzed for diesel range organics (DRO), residual range organics (RRO), polyaromatic hydrocarbons (PAHs), and benzene, toluene, ethylene, and xylenes (BTEX). Groundwater was analyzed for DRO and 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:

- DRO

Cleanup Levels

Soil cleanup levels applicable to AOC C6 are presented in Table 1 and are the most stringent Method Two cleanup levels for the over 40-inches of precipitation climate zone found in 18 AAC 75 Tables B1 and B2. Groundwater cleanup levels applicable to this site are found in 18 AAC 75 Table C. Table 1 includes the applicable cleanup levels for DRO and the maximum residual concentrations in soil and groundwater.

Table 1 – Approved Cleanup Levels and Remaining Contaminant Concentrations

Contaminant	18 AAC 75 Table B1/B2 Soil Cleanup Level (mg/kg)	18 AAC 75 Table C Groundwater Cleanup Level (µg/L)	Soil Max Residual Concentration (mg/kg)	Groundwater Max Residual Concentration (µg/kg)
DRO	230	1500	67.7	56.7J

mg/kg = milligrams per kilogram

µg/L = micrograms per liter

J = estimated value

Characterization and Cleanup Activities

In 2001, a remedial investigation determined surface and subsurface soil contamination exceeded Method Two cleanup level of 230 mg/kg, ranging from 705 mg/kg to 5,800 mg/kg. DRO was detected in groundwater samples collected around the former tank location, in two of the three wells, with concentrations ranging from 923 µg/L to 6840 µg/L. In 2006, the diesel fuel contamination was further delineated with analytical soil samples. Contamination was identified from 5 to 15 ft below ground surface (bgs), extending north and east of the tank foundation, but did not extend to the nearby Ankau Slough. Elevated concentrations of DRO were detected downgradient of the former tank during groundwater monitoring sampling in 2007, measuring 2,100 µg/L at monitoring well AP-062. In 2014, supplemental groundwater and soil sampling determined the contamination extended into the vadose and saturated zones.

In 2018, approximately 14,902 tons of contaminated soil was disposed of offsite at the Columbia Ridge Landfill in Arlington, Oregon, including the concrete tank foundation. Soil sampling at the excavation site indicated contaminated soil remained in the northern sidewall and three separate areas within the excavated floor. Two additional groundwater monitoring wells were installed during the 2018 removal

action. One well was installed within the boundary of the excavation and the other was installed downgradient of the excavation. Groundwater sampling of the existing wells and newly installed wells did not detect any exceedances of the applicable cleanup levels.

A final removal action was conducted in 2020, during which 2,014 tons of petroleum, oil, and lubricants (POL) contaminated surface soil, vadose zone soil, and saturated zone soil was excavated from AOC C6 (**Figure 2**). Confirmation samples indicated that all soil contamination exceeding the applicable cleanup levels was removed from the site. The maximum concentration of DRO detected in confirmation samples from the excavation was 67.7 mg/kg (Table 1) in an excavation floor sample.

During the 2020 removal action (**Figure 3**), one new source area monitoring well was installed in the location of the most contaminated saturated zone portion of the site, and one new downgradient well was installed at following removal of soil contamination. These monitoring wells, along with two previously installed downgradient monitoring wells from 2018 were sampled for DRO and PAHs. DRO was detected at a maximum concentration of 56.7J $\mu\text{g/L}$ (Table 1) in the new downgradient monitoring well, below the groundwater cleanup level of 1500 $\mu\text{g/L}$. All monitoring wells were decommissioned in 2020.

Following the removal action, approximately 2,000 tons of clean fill was brought in to fill the excavation and was graded to match the surrounding area. Stockpiled soil with concentrations below the applicable cleanup levels was spread on the surface to encourage regrowth of the vegetation.

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 either De Minimis Exposure 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	Contamination is not present in surface soil.
Subsurface Soil Contact	Pathway Incomplete	Residual contamination in subsurface soil is below the most stringent Table B1/B2 soil cleanup levels.
Inhalation – Outdoor Air	Pathway Incomplete	Residual soil contamination is below the most stringent Table B1/B2 cleanup levels and is not expected to impact outdoor air.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no buildings present at AOC C6.

Pathway	Result	Explanation
Groundwater Ingestion	Pathway Incomplete	There are no exceedances of the Table C groundwater cleanup levels.
Surface Water Ingestion	Pathway Incomplete	There is no surface water present at the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Residual subsurface contamination is well below the applicable cleanup levels.
Exposure to Ecological Receptors	Pathway Incomplete	There are no concerns about ecological receptors.

Notes:

“Pathway Incomplete” means that, in DEC’s judgment, the contamination has no potential to contact receptors.

DEC Decision

Soil and groundwater contamination at AOC C6 have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. DEC’s database will be updated to note that No Further Action is required at AOC C6.

DEC approval is required for movement and 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 your approval for future movement and disposal of soil associated with Area C6.

Movement or use of contaminated material in an ecologically sensitive area or in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Furthermore, 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. If, in the future, groundwater from this site is to be used for other purposes, 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 DEC 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.

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 contact Jamie McKellar at (907) 451-5175, or via email at jamie.mckellar@alaska.gov. For questions about the Point Carrew Garrison site, please contact Tim Sharp at (907) 451-2131 or tim.sharp@alaska.gov.

Sincerely,

A handwritten signature in cursive script that reads "Jamie McKellar".

Jamie McKellar

Environmental Program Manager 1

Enclosure(s): Figure 1: Point Carrew Site Figure
 Figure 2: Monitoring well and soil confirmation sample locations
 Figure 3: 2020 Excavation areas

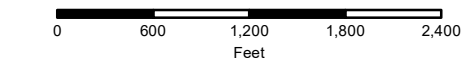
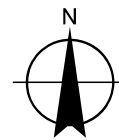
cc, via email: Tim Sharp, DEC



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LEGEND
● Area of Concern
 Area of Interest

Notes:
 Imagery provided by ESRI basemaps retrieved April 2020.

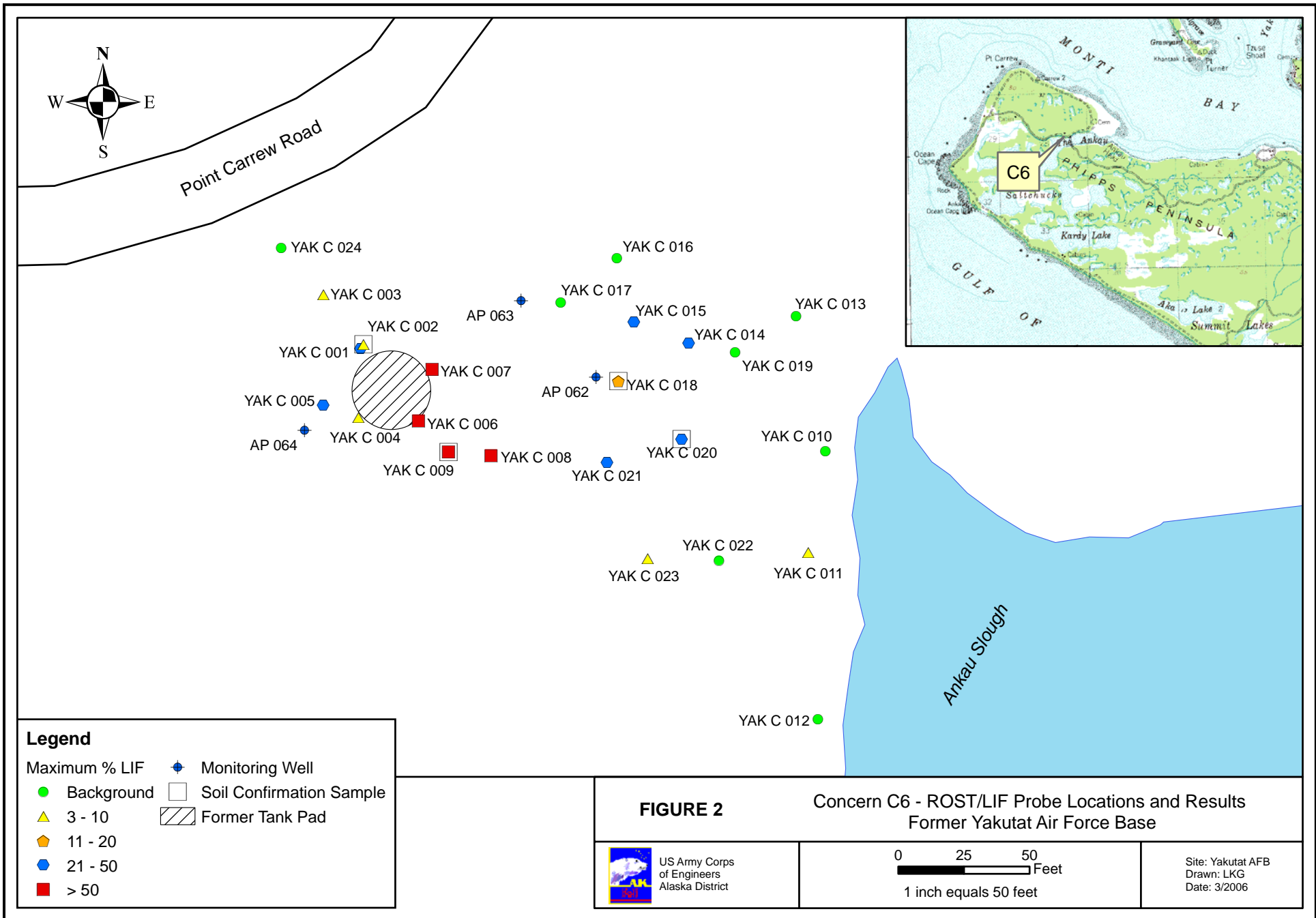


1 inch = 1,200 feet
 NAD 1983 2011 StatePlane Alaska 1 FIPS 5001 Feet



POINT CARREW DETAIL
 - F10AK0606-05
 YAKUTAT, ALASKA








DATE: 30 DEC 2020	PROJECT MANAGER: R. BECK	FIGURE NO: 1
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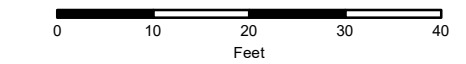
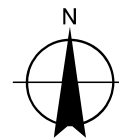


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LEGEND

-  Analytical Sample - Floor
-  Analytical Sample - Side Wall
-  Excavation Boundary
-  Hot Spot Identified and Excavated During 2020 RA
-  2018 Remaining Contamination Area
-  Stream
-  Road



1 inch = 20 feet
 NAD 1983 2011 StatePlane Alaska 1 FIPS 5001 Feet



AOC C6
 EXCAVATION ANALYTICAL SOIL
 SAMPLE LOCATIONS - F10AK0606-05
 YAKUTAT, ALASKA

DATE:
 31 DEC 2020

PROJECT MANAGER:
 R. BECK

FIGURE NO.:
 3