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: 410.38.001

January 13, 2020

Electronic Delivery Only
Lisa Ebbs
Federal Aviation Administration
222 W. 7th Avenue, Box 14
Anchorage, AK 99513-7587

Subject: **DECISION DOCUMENT: NO FURTHER ACTION**
FAA Kotzebue Former Flight Station – Former Sewer Shed, VORTAC Building 409 Former UST, and VORTAC Building 409 Bogs #1 and #2

Dear Ms. Ebbs,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with three Federal Aviation Administration (FAA) Kotzebue areas of concern (AOC): Former Sewer Shed, VORTAC Building 409 Former UST, and VORTAC Building 409 Bogs #1 and #2. Based on the information provided to date, it has been determined that the contaminant concentrations remaining at these AOCs 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 for the Former Sewer Shed, VORTAC Building 409 Former UST, and VORTAC Building 409 Bogs #1 and #2 is based on the administrative record for FAA Kotzebue, 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.

Please note that the file number and Hazard ID associated with the FAA Kotzebue Former Flight Station will remain open until all AOCs are closed.

Site Name and Location:
FAA Kotzebue Former Flight Station
Kotzebue, Alaska 99752
- Former Sewer Shed
  66°53'12.33"N, 162°36'39.14"W
- VORTAC Building 409 Former UST
  66°53'8.37"N, 162°32'23.83"W
- VORTAC Building 409 Bogs #1 and #2
  66°53'9.02"N, 162°32'24.99"W

Name and Mailing Address of Contact Party:
Lisa Ebbs
Federal Aviation Administration
222 West 7th Avenue, Box 14
Anchorage, AK 99513-7587

DEC Site Identifiers
File No.: 410.38.001
Hazard ID: 814

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
Kotzebue, Alaska is located on a gravel spit at the end of the Baldwin Peninsula in the Kotzebue Sound. The Kotzebue FAA Station is located at approximately 66°53'15.36"N, 162°36'37.31"W (see attached Figure 1). The Kotzebue area is underlain by discontinuous permafrost. In 1992, an environmental compliance investigation was performed, which identified multiple AOCs present at the Kotzebue FAA Station. This letter addresses three of those areas – the former Sewer Shed, the VORTAC Building 409 Former UST, and VORTAC Building 409 Bogs #1 and #2.

Cleanup Levels
All sample results were below the Table B2 Method Two Arctic Zone Ingestion Soil Cleanup levels (18 AAC 75.341) which apply at this site.

Characterization and Cleanup Activities
Former Sewer Shed: During a 1992 Environmental Compliance Investigation (ECI) performed in Kotzebue, a nine square foot area of visibly stained soil was identified approximately 75 feet west of the sewer shed (Figure 2). During a 1995 site investigation, the stained soil could not be located. A 10-foot by 20-foot area 75 feet west of the sewer shed was field screened using a photoionization detector, which did not indicate that contamination was present. No stressed vegetation or other petroleum-impact indicators were identified. FAA also performed site visits in September 2017 and June 2019. No visibly stained soil was identified, nor was there evidence of stressed vegetation or other petroleum-impact indicators. The area where the sewer shed had been appears to have been highly disturbed in recent years.

VORTAC Building 409 Former UST: The VORTAC Building 409 Former UST is located on Ted Stevens Way in Kotzebue, approximately three quarters of a mile due east of the end of the Kotzebue airport runway (Figure 3). A 1,000-gallon diesel underground storage tank (UST) was located approximately 20 to 30 feet west of the former VORTAC building, which was destroyed by fire. In 1992, the UST was identified and observed to be full of soil. In 2011, a release investigation was conducted at the former VORTAC UST. Three analytical soil samples were collected (primary and duplicate from directly underneath the tank, and a third at the permafrost interface) for the analysis of gasoline-range organics (GRO), diesel-range organics (DRO), benzene, toluene, ethylbenzene and total xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs). Soil sampling analytical results were either non-detect or

Figure 2. View of the former Sewer Shed location (foreground), facing west towards Kotzebue Sound as seen in 2015. No signs of the former Sewer Shed were identified.

detected below applicable ADEC CULs. In 2015, the UST was removed. Four primary confirmation samples and one duplicate were collected from the final limits of the UST excavation for analysis of GRO, DRO, residual-range organics (RRO), BTEX, and PAHs. Analytical results for all samples were below the Arctic Zone and maximum allowable concentration cleanup levels. See Table 2, below.

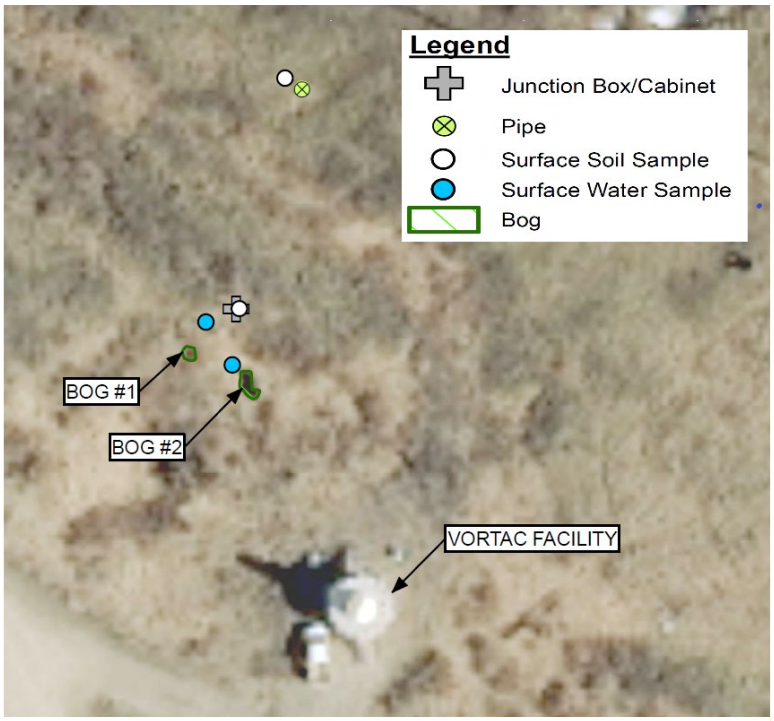

Figure 3. Aerial view of the VORTAC Facility (Building 409). The locations of the bogs, cabinet/junction box, and aluminum conduit pipe are also shown.

VORTAC Building 409 Bogs #1 and #2: A 1992 investigation performed at the VORTAC facility identified two small bogs located approximately 75 feet and 100 feet northwest of the VORTAC building. The 1992 report indicated that the closest bog contained a submerged cabinet and the furthest bog contained a pipe.

In 2019, FAA collected a surface water sample from each bog. Surface water samples were analyzed for DRO, GRO, RRO, VOCs, and PAHs. Calculated total aromatic hydrocarbons (TAH) and total aqueous hydrocarbons (TAqH) were less than the concentrations listed in ADEC 18 AAC 70 for water quality criteria. Additionally, field crews located the cabinet, which was identified as a junction box. An approximately 8-foot section of 2-inch aluminum conduit pipe was also located on the ground surface north of the VORTAC. Surface soil samples collected from under the junction box and aluminum conduit pipe were analyzed for DRO and RRO (with and without silica gel cleanup), VOCs, SVOCs, and PCBs. For the sample collected under the cabinet, DRO, RRO, and methylene chloride and ethylbenzene were detected well below the applicable Arctic Zone cleanup levels. For the sample and duplicate collected under the aluminum conduit, chloroform and DRO were detected, but were below the applicable Arctic Zone cleanup levels.

The approved soil cleanup levels and remaining soil concentrations remaining at each site are presented in Table 2, below.

Table 2 – Approved Soil Cleanup Levels and Remaining Contaminant Concentrations

Contaminant	Table B1 Arctic Zone Cleanup Level (mg/kg)	Maximum Concentrations Remaining	
		VORTAC Building 409 Former UST (mg/kg)	VORTAC Building 409 Bogs #1 and #2 (mg/kg)
DRO	12500	1100	809
RRO	13700	7600	--
Toluene	200	0.073	--
Ethylbenzene	72	0.079	--
Xylenes	57	0.31	--
Naphthalene	42	0.61	--
1-Methylnaphthalene	68	0.65	--
2-Methylnaphthalene	420	0.89	--

Contaminant	Table B1 Arctic Zone Cleanup Level (mg/kg)	Maximum Concentrations Remaining	
		VORTAC Building 409 Former UST (mg/kg)	VORTAC Building 409 Bogs #1 and #2 (mg/kg)
Chloroform	5.8	--	0.0252

"--" = Non-Detect

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 non-carcinogenic 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	**Former Sewer Shed - Result & Explanation**	**VORTAC Building 409 Former UST - Result & Explanation**	**VORTAC Building 409 Bogs #1 and #2 - Result & Explanation**
Surface Soil Contact	PATHWAY INCOMPLETE: No contamination was found in surface soil.	DE MINIMIS: Following the 2015 excavation of the former VORTAC Bldg. 409 UST tank, all surface confirmation samples were below the applicable Arctic Zone cleanup levels for DRO, RRO, BTEX, and PAHs.	DE MINIMIS: Surface samples collected under the aluminum conduit north of the bogs had concentrations lower than Arctic Zone Cleanup Levels for chloroform and DRO.
Sub-Surface Soil Contact	PATHWAY INCOMPLETE: Subsurface soil contamination is not expected and has not been identified in this area.	DE MINIMIS: Following the 2015 excavation of the former VORTAC Bldg. 409 UST tank, all sub-surface confirmation samples were below the applicable Arctic Zone ingestion cleanup levels for DRO, RRO, BTEX, and PAHs.	PATHWAY INCOMPLETE: Subsurface soil contamination is not expected and has not been identified in this area.
Inhalation – Outdoor Air	PATHWAY INCOMPLETE: No contamination has been identified in surface or subsurface soils.	PATHWAY INCOMPLETE: Contamination remains in the subsurface, but is below inhalation cleanup levels.	PATHWAY INCOMPLETE: Minimal contamination remains in surface soil, but is below inhalation cleanup levels.

Pathway	Former Sewer Shed - Result & Explanation	VORTAC Building 409 Former UST - Result & Explanation	VORTAC Building 409 Bogs #1 and #2 - Result & Explanation
Groundwater Ingestion	PATHWAY INCOMPLETE: No contaminants have been detected in groundwater.	PATHWAY INCOMPLETE: No contaminants have been detected in groundwater.	PATHWAY INCOMPLETE: No contaminants have been detected in groundwater.
Surface Water Ingestion	PATHWAY INCOMPLETE: There is no surface water at the site. No contamination has been detected at this site.	PATHWAY INCOMPLETE: There is no surface water at this site. Remaining concentrations in the footprint of the former UST are below Arctic Zone cleanup levels.	DE MINIMIS: Calculated TAH and TAqH concentrations were less than the concentrations listed in 18 AAC 70 for surface water quality.
Wild and Farmed Foods Ingestion	PATHWAY INCOMPLETE: No contamination has been detected at this site.	PATHWAY INCOMPLETE: There are no bioaccumulative compounds at this site. Remaining concentrations in the footprint of the former UST are below Arctic Zone cleanup levels.	PATHWAY INCOMPLETE: All soil samples collected at the site were below the applicable Arctic Zone cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	PATHWAY INCOMPLETE: There are no structures located on the site. No contamination has been detected.	PATHWAY INCOMPLETE: There are currently no structures at the site. Contamination remains in the subsurface, but is below inhalation cleanup levels.	PATHWAY INCOMPLETE: The site consists of two bogs, approximately 75 and 100 feet northwest of the VORTAC building.
Exposure to Ecological Receptors	PATHWAY INCOMPLETE: There are no concerns about ecological pathways. Contamination has not been identified at this site.	PATHWAY INCOMPLETE: There are no concerns about ecological pathways.	PATHWAY INCOMPLETE: There are no concerns about ecological pathways.

ADEC Decision

Minimal soil and groundwater contamination at these AOCs remains at concentrations below the approved cleanup levels suitable for residential land use. These three source areas will receive a "No Further Action" notation 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 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.

If you have questions about this closure decision, please feel free to contact me at (907) 451-5175, or email at jamie.mckellar@alaska.gov.

Sincerely,

Jamie McKellar
Digitally signed by Jamie McKellar
Date: 2020.01.13 14:17:15 -09'00'

Jamie McKellar
Environmental Program Specialist

Enclosure: Figure 1 - Kotzebue Site Figure

cc, via email: Eric Breitenberger, DEC
Kara Kusche, DEC

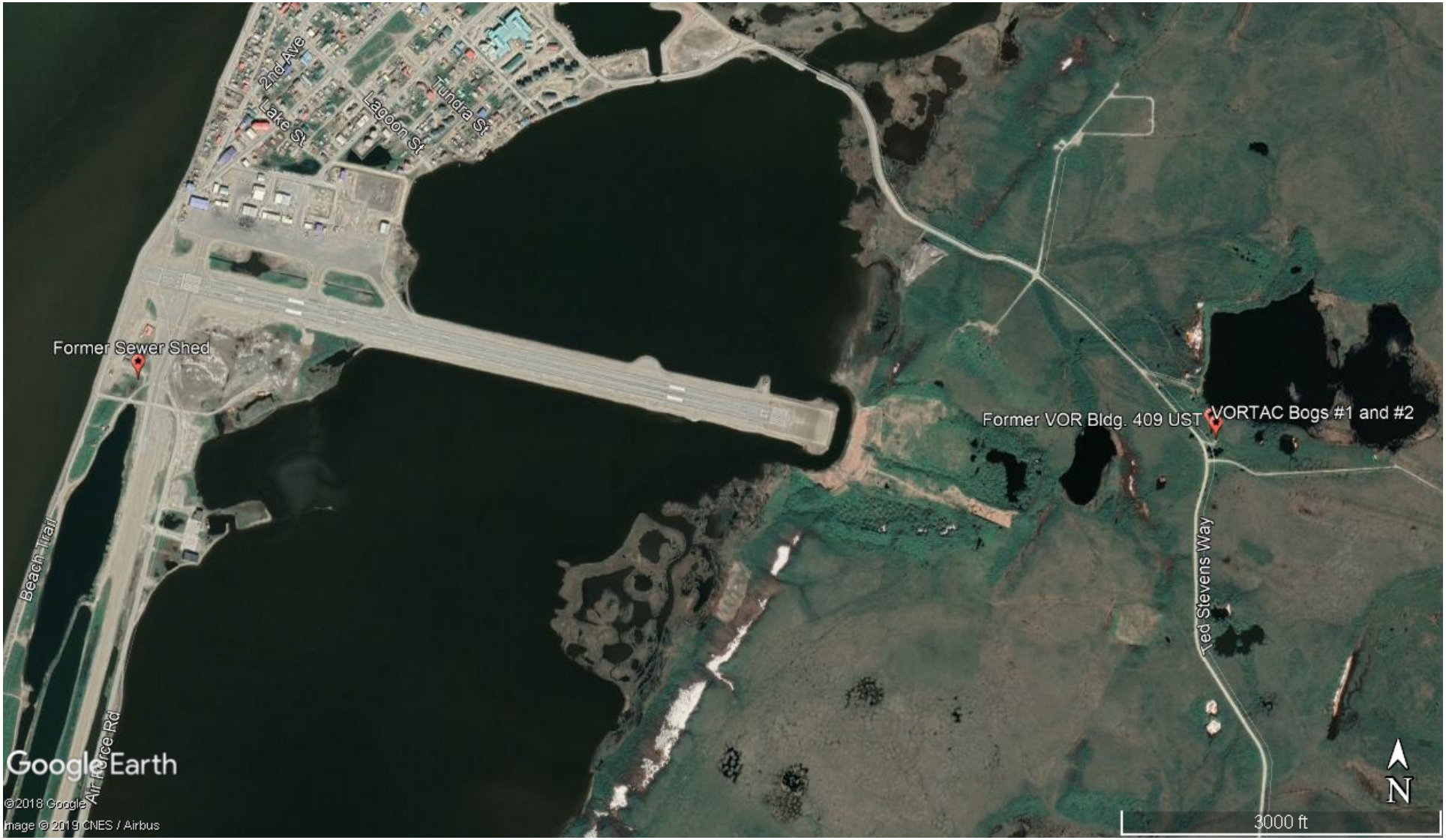

Figure 1. Kotzebue, Alaska site figure. The former Sewer Shed, former VOR Building 409 UST, Building 409 VORTAC bog locations are marked.