
No Department of Defense Action Indicated Report

Containerized Hazardous, Toxic, or Radioactive Waste
Project # F10AK1016-10
Haines-Fairbanks Pipeline Milepost 585.5
Gate Valve #69
Salcha, Alaska

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1.0 INTRODUCTION

The Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) authorizes the cleanup of contamination resulting from past military activities at sites no longer owned by the Department of Defense (DOD). A hazardous, toxic, or radioactive waste (HTRW) project (F10AK1016-01) was authorized for the Haines-Fairbanks Pipeline (HFP) in 2002. The Haines-Fairbanks Pipeline was formerly used by the DOD and is eligible for cleanup under the DERP-FUDS. In 2012, a revised Inventory Project Report (INPR) was completed to modify the existing -01 HTRW project and add 13 containerized hazardous, toxic, or radioactive waste (CON/HTRW) projects (F10AK1016-02 through -14). As part of the 2012 HFP INPR revision, a separate CON/HTRW project (F10AK1016-10) was established for Haines-Fairbanks Pipeline Milepost 585.5, also known as the Gate Valve #69 Site. The approximate location of the site is 64.46920° North Latitude, 146.92754° West Longitude.

Based on the results of several environmental investigations and a limited removal action at the Gate Valve #69 Site, the F10AK1016-10 CON/HTRW project of the Haines-Fairbanks Pipeline is being recommended for closure and No DOD Action Indicated (NDAI) status.

The United States Army Corps of Engineers (USACE) is an agent for the Department of Defense and has been assigned the responsibility of coordinating activities at Formerly Used Defense Sites. This NDAI report is issued by the United States Army Corps of Engineers, Alaska District (USACE-AK); the lead agency for the Haines-Fairbanks Pipeline FUDS.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Haines-Fairbanks Pipeline History

The United States Army Corps of Engineers was responsible for pipeline design and construction. The HFP, its five pumping stations, and two associated bulk storage terminals were constructed by private contractors with oversight from USACE over a period of 22 months from 1953 to 1955. The HFP was built to transport fuels from the port at Haines, Alaska, to the military bases in interior Alaska. The pipeline was run by federal civilians supervised by the Petroleum Division on Fort Richardson. Four types of fuel were transported through the pipeline including diesel, automotive gas, jet fuel, and aviation gas; however the majority of the fuel transported was jet fuel (JP4). Much of the 8-inch diameter pipeline was laid on the ground surface, although approximately 96 miles of the HFP near Delta Junction, Alaska, and most of the 42 miles of HFP between the Haines Fuel Terminal and the Canadian border were buried. Other portions of the HFP were also buried, although these intervals were short and intermittent.

Originally, the HFP was constructed with five pump stations located at Haines and Tok, Alaska, and Border, Haines-Junction, and Donjek in Yukon Territory, Canada. Bulk fuel storage facilities were also constructed at Haines and Tok, Alaska. Six new pump stations were added to the HFP in 1962 in response to increased military fuel demands. The new pump stations were located at Blanchard River, Destruction Bay, and Beaver Creek in Yukon Territory, Canada, and at Lakeview, Sears Creek, and Timber, Alaska.

The Haines-to-Tok section of the pipeline was shut down in July 1971. In 1973, the Tok-to-Eielson section of the HFP was deactivated. The bulk fuel storage facilities in Haines and Tok, Alaska, continued to operate until 1979, when the U.S. Army closed the Tok fuel storage facility. The Tok-to-Fairbanks section of the HFP was briefly reactivated to pump the remaining fuel from the station. All of the fuel was removed from the Tok terminal in July 1979 and the pipeline was shut down. Most of the unused pipeline has been removed or salvaged by nonmilitary entities.

The HFP was plagued with leaks from corrosion, ice damage, and vandalism (e.g., bullet holes) throughout its operational history. Underground portions of the pipeline experienced damage from broken welds and at least one accidental breach from borehole drilling. Ice plugs formed in the pipeline during system startup and resulted in spills at a number of sites; however, most of these ice plugs were located in Canadian sections of the pipeline (CRREL 1972).

2.2 Site Location and Background

The Haines-Fairbanks Pipeline extends a total of 626 miles from Haines, Alaska, through the Canadian provinces of British Columbia and the Yukon Territory, through Tok, Alaska, and up to Fairbanks, Alaska. The pipeline route generally parallels the Haines Highway from Haines, Alaska, to Haines Junction, Yukon Territory. It then follows the Alaska Highway to Delta Junction, Alaska, continuing along the Richardson Highway to Fort Wainwright, Alaska. Approximately 52 percent of the pipeline route lies within United States territory.

Pipeline Milepost 585.5 (Gate Valve #69 Site)

Gate Valve #69 is located at Haines-Fairbanks Pipeline Milepost (PMP) 585.5, Richardson Highway Milepost (RHMP) 323.3, within the Salcha River State Recreation Area (Figure 1). No documented releases are associated with this site, although petroleum-contaminated soil was confirmed in the former vault location. The gate valve, vault, and associated bleeder valve were removed from the site in 2007.

3.0 REMOVAL ACTIVITIES

Several environmental investigations and cleanup activities have occurred at various locations along the HFP since its closure in 1973. The most recent activities concerning the Gate Valve #69 Site occurred between 2007 and 2015.

On October 5, 2007, a limited soil excavation was completed at the site to facilitate the removal of the gate valve and vault and allow for analysis of underlying soil. The depth of the excavation reached approximately 8 feet below ground surface (bgs) before groundwater was encountered. The test pit was 12 feet wide, 12 feet long and 8 feet deep. Photoionization detector (PID) field screening was used to guide the collection of two soil samples for analysis of gasoline-range organics (GRO), diesel-range organics (DRO), residual-range organics (RRO), benzene, toluene, ethylbenzene, xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), and metals. One soil sample was collected from approximately 1 foot beneath the valve body, the other soil sample from the excavation floor at the water table. The sample from the groundwater interface

contained GRO and DRO concentrations above the most stringent Alaska Department of Environmental Conservation (ADEC) Method Two soil cleanup levels. The sample from directly beneath the valve body had detectable concentrations of GRO and DRO, although concentrations were below cleanup levels. BTEX and PAHs were not detected in either soil sample. Since soil contamination exceeding ADEC cleanup levels was not identified above the groundwater table, no soil was removed during this effort and the excavation was backfilled with native material (CH2M HILL 2008).

A total of fourteen rapid optical screening tool (ROST) probes were completed at the site in 2008 by USACE-AK. Probe depth ranged from 10.5 to 14 feet bgs. The Laser-Induced Fluorescence (LIF) response corresponding to a fuel signature was identified at GV69-02, in the approximate location of the former gate valve, at depths between 6.9 to 8.3 feet bgs. A potential LIF fuel signature was also identified at GV69-13, approximately 15 feet northeast of the former gate valve location, at depths between 8.7 to 9.4 feet bgs. All other borings contained only background LIF readings within the area. One soil sample was collected from the ROST point displaying the highest LIF response (GV69-02) and analyzed for DRO, GRO, RRO, PAHs, volatile organic compounds (VOCs), and metals. Concentrations of DRO, GRO, and arsenic exceeded the ADEC Method Two migration to groundwater cleanup levels (USACE 2010).

An environmental investigation of soil and groundwater was completed at the site in 2014. Ten soil borings were drilled and twenty-one soil samples (including two field duplicates) were collected. Soil samples were submitted for analysis of GRO, DRO, RRO, BTEX, and 1,2-dichloroethane (1,2-DCA), PAHs, ethylene dibromide (EDB), and lead. Additionally, four samples were submitted for total organic carbon (TOC) analysis. DRO exceeded the ADEC Method Two soil cleanup level in a single sample from a boring that was located southeast of the former gate valve and bleeder valve locations, at a depth of 8 to 9 feet bgs. This sample was collected from a similar location and depth where samples were collected during the 2007 and 2008 investigations; however the DRO concentration was several times lower than identified in the previous investigations. Monitoring wells were completed in six of the soil borings, and groundwater samples were collected and submitted for GRO, DRO, RRO, BTEX and 1,2-DCA, PAHs, EDB, lead, nitrate/nitrite, sulfate, and dissolved iron and manganese analyses. No groundwater samples exceeded ADEC cleanup levels and petroleum hydrocarbons were not detected above the limit of detection (LOD) in any of the samples. The investigation showed that residual soil contamination is very limited and fuel releases have not resulted in groundwater contamination. Site closure and decommissioning of monitoring wells was recommended (FES 2014).

Groundwater well decommissioning and site restoration activities were successfully completed by Bristol Environmental Remediation Services, LLC (Bristol) on September 17, 2015. The wells were decommissioned in accordance with the accepted planning documents and applicable ADEC monitoring well guidance (Bristol 2015).

4.0 SUMMARY OF REMEDY

Based on the results of the aforementioned investigation efforts, USACE-AK has recommended that no further action is required at the Gate Valve #69 Site (F10AK1016-10). This NDAI determination may be reevaluated in the event that additional information becomes available or that previously undiscovered and FUDS-eligible contamination is present at the site.

5.0 REFERENCES

Bristol, 2015. Gate Valve #69 Well Decommissioning Technical Memorandum Report, Draft, October. (F10AK101610_07.08_0500_p)

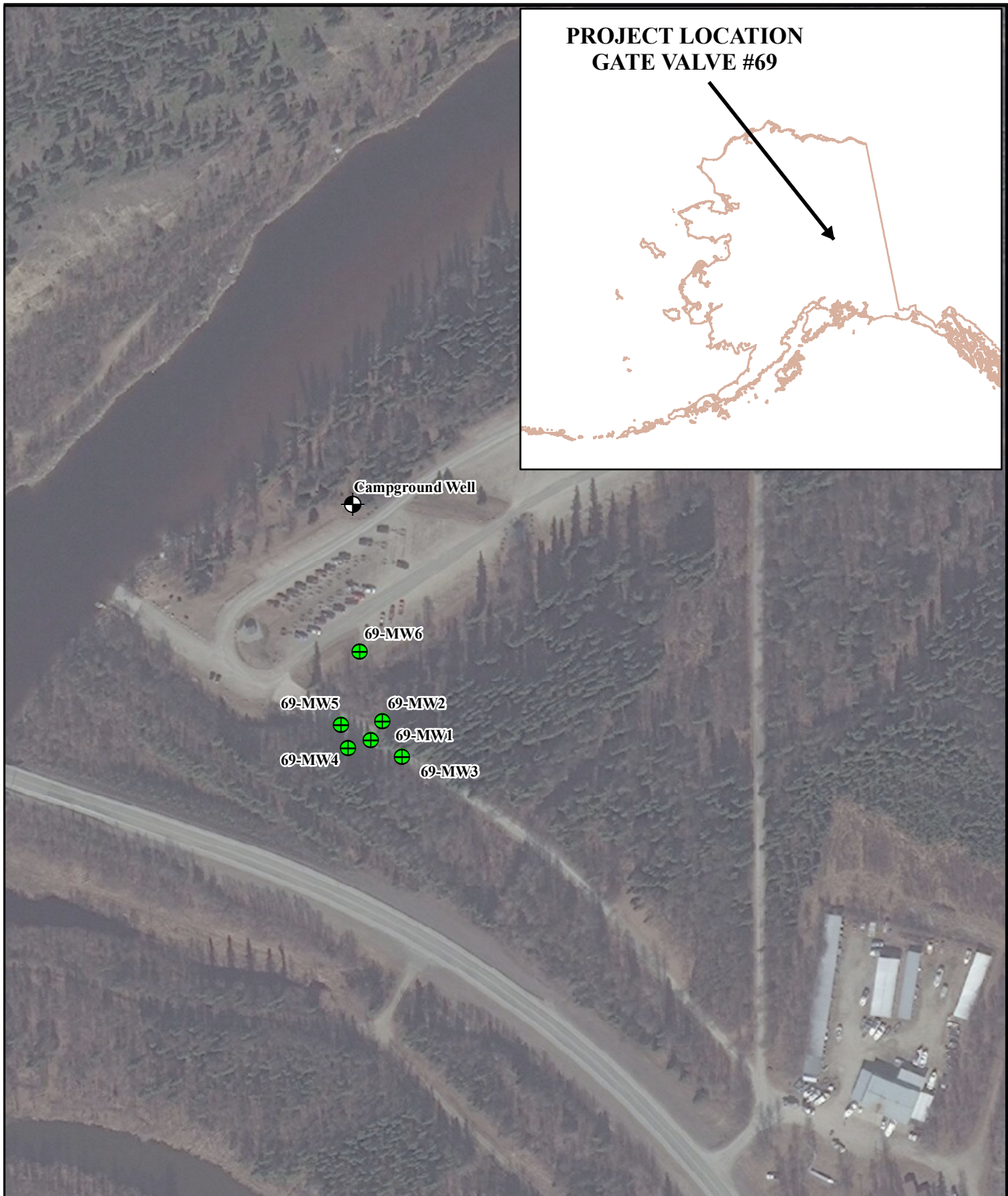
CRREL, 1972. *Preliminary Investigations of Petroleum Spillage, Haines-Fairbanks Military Pipeline, Alaska*, April. (F10AK101601_01.09_0501_a)

CH2M HILL, 2008. *2007 Haines-Fairbanks Pipeline Site Investigation*, July. (F10AK101601_01.09_0505_a)


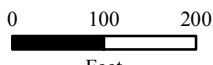

USACE, 2010. *2008 ROST Site Investigation Report Final*, March. (F10AK101601_01.09_0503_a)

FES, 2014. *Final Environmental Investigation, Gate Valve #69 Haines-Fairbanks Pipeline Formerly Used Defense Site*, October. (F10AK101610_06.02_0501_p)

Figures



NOTES:
 1. Background imagery credits: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.
 2. The groundwater wells depicted were decommissioned by Bristol in 2015. The campground well is still in service.

 	LOCATION AND VICINITY MAPS		
 <p>U.S. Army Corps of Engineers Alaska District</p>	GATE VALVE #69 F10AK1016-10 SALCHA, ALASKA	FIGURE 1	

Attachments

**DECLARATION OF PROJECT CLOSURE DECISION
And
NO DEPARTMENT OF DEFENSE ACTION INDICATED
For
FORMERLY USED DEFENSE SITE CON/HTRW PROJECT
PIPELINE MILEPOST 585.5 (GATE VALVE #69 SITE - F10AK1016-10)
SALCHA, ALASKA**

STATEMENT OF BASIS

Authority for the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) for Containerized Hazardous, Toxic, or Radioactive Waste (CON/HTRW) projects is derived from the Defense Environmental Restoration Program, 10 United States Code (USC) 2701-2707. The decision to close out the CON/HTRW project (F10AK1016-10) is based on the 2016 No Department of Defense Action Indicated (NDAI) Report and the results of site investigations and a limited removal activity completed by or on behalf of the United States Army Corps of Engineers – Alaska District (USACE-AK) between 2007 and 2015.

SITE DESCRIPTION AND HISTORY

The Haines-Fairbanks Pipeline (HFP) extends a total of 626 miles from Haines, Alaska, through the Canadian provinces of British Columbia and the Yukon Territory, through Tok, Alaska, and up to Fairbanks, Alaska. The pipeline route generally parallels the Haines Highway from Haines, Alaska, to Haines Junction, Yukon Territory. It then follows the Alaska Highway to Delta Junction, Alaska, continuing along the Richardson Highway to Fort Wainwright, Alaska. Approximately 52 percent of the pipeline route lies within United States territory.

An original HTRW project (F10AK1016-01) was authorized for the HFP in 2002 after completing a Findings and Determination of Eligibility (FDE). The results of the FDE indicated that the Haines-Fairbanks Pipeline was formerly used by the Department of Defense (DOD) and eligible for cleanup under the DERP-FUDS. In 2012, a revised Inventory Project Report (INPR) was completed to modify the existing -01 HTRW project and add 13 CON/HTRW projects (F10AK1016-02 through -14).

As part of the 2012 HFP INPR revision, the F10AK1016-10 CON/HTRW project was established for Haines-Fairbanks Pipeline Milepost 585.5, also known as the Gate Valve #69 Site.

DESCRIPTION OF THE SELECTED REMEDY AND IMPLEMENTATION

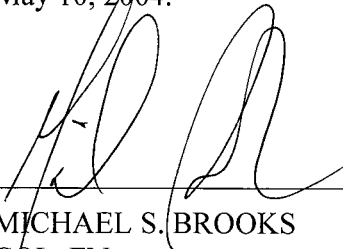
Based on the results of cleanup and remedial investigation efforts completed between 2007 and 2015, USACE-AK has determined that no further action is required at the Gate Valve #69 Site.

DECLARATION

In accordance with the Defense Environmental Restoration Program for Formerly Used Defense Sites, the U.S. Army Engineer District, Alaska, has completed all CON/HTRW activities at the Haines-Fairbanks Pipeline Milepost 585.5 – Gate Valve #69 FUDS (F10AK1016-10), Salcha, Alaska. This Declaration of Project Closure Decision supports the conclusion that all known

sources of CON/HTRW have been remediated. No further CON/HTRW actions are required by the DOD at this project location. This decision may be reviewed and modified in the future if any new information becomes available which indicates the presence of eligible CON/HTRW that may cause a risk to human health or the environment.

This Declaration of Project Closure Decision has been prepared and approved by the undersigned in accordance with the FUDS Program Policy, Engineer Regulation (ER) 200-3-1, May 10, 2004.



MICHAEL S. BROOKS
COL, EN
Commanding

Date 13 APR 16

The State of Alaska, through the Department of Environmental Conservation agrees this Haines-Fairbanks Pipeline Milepost 585.5 Gate Valve #69 Site CON/HTRW F10AK1016-10 project closure is consistent with state cleanup requirements. The decision may be reviewed and modified in the future if information becomes available that indicates the presence of contaminants or waste that may cause unacceptable risk to human health or the environment.

_____ Date _____

Kim DeRuyter
Environmental Program Manager
Alaska Department of Environmental Conservation