FORT WAINWRIGHT

Army Cleanup Program

Installation Action Plan Final

June 2024

TABLE OF CONTENTS

STATEMENT OF PURPOSE

The Installation Action Plan (IAP) provides evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment. The IAP provides an outline of the total multi-year environmental cleanup program for each site with ongoing or future planned restoration activity and includes the (1) environmental restoration requirements, (2) the rationale for the selected technical approach, and (3) foundation to develop corresponding financial needs for each cleanup site.

INSTALLATION OVERVIEW

Installation Name: FORT WAINWRIGHT

Installation City: FORT WAINWRIGHT

Installation County: FAIRBANKS N

Installation State: AK

Regulatory Participation - Federal: US Environmental Protection Agency (USEPA), Region 10

Regulatory Participation - State: Alaska Department of Environmental Conservation (ADEC)

ACRONYMS

Acronym	Definition
ADEC	Alaska Department of Environmental Conservation
ARAR	Applicable or Relevant and Appropriate Requirement
AST	Aboveground Storage Tank
AS	Air Sparging
ATF	Aviation Task Force
bgs	below ground surface
BLM	Bureau of Land Management
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAIS	Chemical Agent Test Sets
CANOL	Canadian Oil
CAP	Corrective Action Plan
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CLOSES	Cleanup Operations and Site Exit Strategy
COC	Contaminant of Concern
CUL	Cleanup Level
CWM	Chemical Warfare Material
cy	cubic yard
DCA	Dichloroethane
DCE	Dichloroethylene
DD	Decision Document
DDD	Dichlorobiphenyl Dichloroethane Dieldrin
DFO	Diesel Fuels Oil
DRMO	Defense Reutilization and Marketing Office
DRO	Diesel Range Organics
EBHTF	East Birch Hill Tank Farm
ENV	Environmental
EOD	Explosive Ordnance Disposal
ESD	Explanation of Significant Differences
FARP	Forward Air Refueling Point
FEP	Fairbanks-Eielson Pipeline
FFA	Federal Facilities Agreement
FFT	Fairbanks Fuel Terminal
FLPS	Farmer's Loop Permafrost Station
FS	Feasibility Study

Acronym	Definition
FTP	Fire Training Pit
FYR	Five-Year Review
GRO	Gasoline Range Organic
IC	Institutional Control
IR	Installation Restoration
IRA	Interim Remedial Action
JP	Jet Propellant
LTM	Long-Term Management
LUC	Land Use Control
MAROS	Monitoring and Remediation Optimization System
MCL	Maximum Contaminant Level
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
mg/kg	milligrams/kilogram
mg/L	milligrams per liter
MGRS	Military Grid Reference System
MOGAS	Motor Gasoline
MN	Methylnaphthalene
MNA	Monitored Natural Attenuation
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NAPL	Non-Aqueous Phase Liquid
NFA	No Further Action
OB/OD	Open Burn/Open Detonation
OSD	Office of the Secretary of Defense
OU	Operable Unit
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons
PCA	Tetrachloroethene
PCE	Perchloroethylene
PCP	Pentachlorophenol
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate
PID	Photo Ionization Detector
POL	Petroleum, Oil and Lubricants
PP	Proposed Plan

Acronym	Definition
ppm	parts per million
PSE	Preliminary Source Evaluation
QFS	Quartermasters Fueling System
RA(C)	Remedial Action (Construction)
RAG	Remedial Action Goal
RAO	Remedial Action Objectives
RA(O)	Remedial Action (Operations)
RBC	Risk-Based Concentration
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
ROLF	Railcar Off-Loading Facility
RPM	Restoration Program Manager
RRO	Residual Range Organics
RRSE	Relative Risk Site Evaluation
RSL	Regional Screening Level
SC	Sparge Curtain
SHRR	Supplemental Historical Records Review
SI	Site Inspection
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TCA	Trichloroethane
TCE	Trichloroethene
TMB	Trimethylbenzene
ug/L	micrograms per liter
UU/UE	Unlimited Use and Unrestricted Exposure
USACE	US Army Corps of Engineers
USEPA	US Environmental Protection Agency
UXO	Unexploded Ordinance
UST	Underground Storage Tank
VI	Vapor Intrusion
VOC	Volatile Organic Compound

Acronym	Definition
VSI	Visual Site Inspection

PHASE TRANSLATION TABLE

CERCLA Phase	RCRA Phase	RCRA UST Phase
Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
Remedial Design (RD)	Design (DES)	Design (DES)
Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
Remedial Action (Operations) (RA(O))	Corrective Measures Implementation (Operations) (CMI(O))	Implementation (Operations) (IMP(O))
Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

PROGRAM SUMMARY

Number of Open Sites with Response Complete/Total Open IR Sites: 16/61

Number of Open Sites with Response Complete/Total Open MR Sites: 0/1

Number of Open Sites with Response Complete/Total Open CC Sites: 0/3

SITE-LEVEL INFORMATION

02871.1003_FTWW-003_AIRCRAFT MAIN (BLDG 2077)

Env Site ID: FTWW-003

Cleanup Site: AIRCRAFT MAIN (BLDG 2077)

Alias: HANGAR 7&8

Regulatory Driver: CERCLA

RIP Date: 12/31/2003

RC Date: 12/12/2013

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	9/20/1993
SI:	9/21/1993	4/15/1994
RI/FS:	4/16/1994	6/27/1997
RD:	3/31/1997	9/30/2001
IRA:	- -	- -
RA(C):	6/30/1997	12/31/2003
RA(O):	10/15/1995	12/12/2013
LTM:	12/13/2013	9/30/2054

Site Narrative: Building 2077, also referred to as Hangars 7 and 8, is located near the southeast corner of the flight line on Montgomery Road. The site was investigated because it had been used for aircraft maintenance operations, specifically paint stripping and painting operations, since 1958. This site was included in the operable unit (OU)1 remedial investigation (RI)/feasibility study (FS) management plan and indicated benzene, toluene, ethylbenzene, and xylenes (BTEX), diesel range organics (DRO), heavy metals and polycyclic aromatic hydrocarbon (PAH) contaminants were present in soil up to 10 feet below ground surface (bgs) and in groundwater. Solvents and paint thinners were never encountered during the RI/FS. The source area was transferred to the two-party agreement via the OU1 Record of Decision (ROD) based on the results of the RI/FS that indicated the risk assessment fell within acceptable risk for an industrial area other than the petroleum contaminants. The corrective action plan (CAP) was completed in 1996 and an air sparging (AS)/soil vapor extraction (SVE) treatment system was installed in August 1997 and operated until 2003. A source removal action took place in 2003 when 1,127 cubic yards (cy) of contaminated soil was removed and remediated. Remedial action objectives (RAO) for groundwater were DRO 1.5 milligrams per liter (mg/L), gasoline range organics (GRO) 1.3 mg/L, benzene 5 micrograms per liter (ug/L), toluene 1 mg/L, ethylene 0.7 mg/L, and total xylenes 10 mg/L. During construction in 2010 sample results indicated the presence of DRO (2,950 mg/kg)) and GRO (1,390 mg/kg). All solvent contaminated soil was removed and treated. As of 2011 contaminant of concern (COC) concentrations for DRO, GRO and volatile organic compounds (VOC) had been below RAOs for groundwater for over three sampling events in the source area well and cross gradient well. Alaska Department of Environmental Conservation (ADEC) granted cleanup complete with institutional controls (IC) on Dec. 12, 2013; groundwater monitoring wells were decommissioned in 2017. ICs are to restrict groundwater and soil disturbing activities use through the installations land use control (LUC) program. The OU1 ROD also assumed the reasonably anticipated future use to be industrial. LUCs were established by ADEC closure letter. As part of those LUCs, the site is listed on the two-party source area locations for the IC inspections map and is inspected annually in the IC report. Also, per the ADEC closure letter, any work at this site requires a work plan approved by the state of Alaska. Contamination in the

parking lot associated with Building 2077 is addressed under site 02781.1124. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for unlimited use/unrestricted exposure (UU/UE), the Army is responsible for implementation, maintenance, reporting, and enforcement of LUC/ICs. It is assumed this responsibility will be maintained by the Army.

02871.1009_FTWW-011_POWER PLANT COAL STORAGE YARD (

Env Site ID: FTWW-011

Cleanup Site: POWER PLANT COAL STORAGE YARD (

Alias: OU4/2A

Regulatory Driver: CERCLA

RIP Date: 9/30/1997

RC Date: 4/30/2003

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1991	1/31/1992
SI:	1/31/1991	1/31/1992
RI/FS:	12/31/1993	9/24/1996
RD:	5/31/1997	7/31/1997
IRA:	5/31/1994	9/30/1994
RA(C):	9/30/1997	9/30/1997
RA(O):	9/30/1997	4/30/2003
LTM:	5/15/2003	9/30/2054

Site Narrative: This site is located south of the Fort Wainwright power plant and east of the power plant cooling pond. The area of concern is located within an area approximately 800 feet by 300 feet between the cooling pond and an embankment. Coal was stored directly on the ground without a liner. Waste petroleum products and solvents were sprayed over the coal pile to increase the British thermal unit content and energy output of the plant. This practice has been discontinued. Two 10,000-gallon underground storage tanks (UST) were installed in the 1980s to contain used oil for the practice of spraying the material directly onto the coal pile. Before this time, used oil was placed in drums stored adjacent to the coal pile. The UST tanks were removed in July of 1995. A 1,500-gallon UST used for diesel fuel was replaced in 1991 to provide fuel to heavy equipment used in the day-to-day operations at the power plant. Maximum concentrations of detected COCs in soil were benzene, 22.28 mg/kg, 1,1, dichloroethylene (DCE) 0.279 mg/kg, trichloroethene (TCE) 185.7 mg/kg, and perchloroethylene (PCE)–1.–6 mg/kg in the OU4 RI/FS. Maximum concentrations of detected COCs in groundwater were benzene 870 ug/L, toluene 2,550 ug/L, ethyl benzene 550 ug/L, total xylenes 1,810 ug/L, 1,1-dichloroethane (DCA) 196 ug/L, TCE 820 ug/L, 1,1,2-trichloroethane (TCA) 25.8 ug/L, and PCE 410 ug/L, 1,1,2,2-tetrachloroethene (PCA) 653 ug/L in the OU4 RI/FS. The OU4 ROD included this site and establish RAOs of - restore groundwater to drinking water quality, prevent further leaching of contaminants into groundwater, reduce or prevent further migration of contaminated groundwater, and prevent use of groundwater containing contaminants above Safe Drinking Water Act and State Water Quality Act Standards. Chemical specific cleanup goals for groundwater were benzene 5 ug/L, bis(2-ethylhexyl) phthalate 6 ug/L, trichloroethene 5 ug/L, and toluene 1,000 ug/L. Chemical-specific cleanup goals for soil were - BTEX 15 mg/kg, benzene 0.5mg/kg, DRO 200 mg/kg, and GRO 100 mg/kg. The preferred alternative was enhanced AS/SVE treatment of the soils and groundwater. The treatment system was installed and began operation summer of 1997. Subsequent sampling of groundwater treatment has shown groundwater to be below cleanup goal levels established in the ROD. Additional groundwater sampling verified that contaminants are not migrating from the soil. The last monitoring event was in

2003. The AS/SVE system was decommissioned in 2004 with a recommendation for no further groundwater monitoring at the site. Soil contamination was left in place. Soil and groundwater treatment was captured in the interim remedial action (IRA) phase though it did not go through all the necessary requirements and documentation for a Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) IRA. To protect human health and/or worker safety ICs were placed on the site for the remaining petroleum, oil and lubricants (POL) and TCE in the soils which is documented in the 2006 Fort Wainwright five-year review restricting well development and groundwater access until groundwater contaminant levels are below federal maximum contaminant levels (MCL) and Alaska Water Quality Standards. CERCLA five-year reviews for this site will remain in place until the site is removed from OU4. Site is not actively monitored but mentioned in the OU4 Annual Monitoring report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. LUC boundaries include most of the area of the Power Plant Building 3595, south and west to the rail lines. Several co-located sites are within this boundary, one being the Doyon Clear Well, which is currently being reviewed for DERP eligibility. Cleanup/Exit Strategy- Because hazardous substances pollutants or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE CERCLA five-year reviews are required until levels allow for UU/UE. The Army is responsible for implementation maintenance periodic reporting and enforcement of ICs. It is assumed this responsibility will be maintained by the Army.

02871.1019_FTWW-026_PESTICIDE STG (BLDG 1599)

Env Site ID: FTWW-026

Cleanup Site: PESTICIDE STG (BLDG 1599)

Alias: OU1/5/S-15

Regulatory Driver: CERCLA

RIP Date: 10/31/1996

RC Date: 6/27/1997

RC Reason: Other

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	9/20/1993
SI:	9/21/1993	4/15/1994
RI/FS:	4/16/1994	6/27/1997
RD:	- -	- -
IRA:	- -	- -
RA(C):	10/31/1996	10/31/1996
RA(O):	- -	- -
LTM:	7/15/1997	9/30/2054

Site Narrative: Building 1599, also known as Building T-106, was built in 1942 and used for motor vehicle repair, pesticide storage and mixing, and other industrial operations. The building was located north of Taxiway 18 on Front Street approximately 0.14 miles south of the Chena River and was intentionally burned for a fire training exercise in 1984. The 1990 visual site inspection (VSI) identified this area as Resource Conservation and Recovery Act (RCRA) solid waste management unit (SWMU) S-15 and recommended a RCRA Facility Investigation (RFI) for pesticides such as endrin, lindane, methoxychlor, toxaphene, 2,4-D, and 2,4,5-TP silvex. As part of OU1 RI, Building 1599 was found to have DRO above ADEC cleanup levels (CUL) of 200 mg/kg in 1995. The RI was strictly focused on surface soils 0-4 feet bgs. GRO above 100 mg/kg, dioxins, aroclor 1260, and pesticides were found to exceed the US Environmental Protection Agency (USEPA) risk-based concentration (RBC) in 1995 in surface soil around Building 1599. Subsurface soils had detections of pesticides exceeding 1/10th the USEPA RBCs at the time and detections of DRO, GRO, and BTEX exceeding ADEC CUL; however, the subsurface soils and groundwater were assigned to be handled by OU5. Groundwater had floating product as well as DRO, GRO, VOCs, semi-volatile organic compounds (SVOC), dioxins, and aldrin exceedances, but groundwater was also assigned to be addressed as part of OU5. The baseline risk assessment therefore only considered surface soils and found excess lifetime cancer risks for the source area were within the acceptable risk range for an industrial area. As a result, the OU1 ROD determined no further action (NFA) under CERCLA and transferred the source area to OU5 for subsurface and groundwater investigation. The OU5 ROD moved the subsurface soils to the two-party agreement. OU1 and OU5 RODs put land and groundwater use restrictions and ICs on the source area with annotation in the Fort Wainwright Master Plan. The OU5 RI and ROD did not, however, address the dioxins and pesticides around Building 1599 and a data gap remains. In September 2018, a nearby construction project excavated soils down to four feet bgs. Sampling results of those soils indicated contamination with DRO, GRO, dichlorobiphenyl dichloroethane (DDD), dieldrin, 1,2,4-trimethylbenzene (TMB), 1,3,5-TMB, chlorobenzene, and TCE. A 2019 construction project encountered soils contaminated with DRO and dieldrin on the east side of Building 1599. Based

on contamination encountered, the area has established LUC/ICs that require long-term management (LTM). This includes annual groundwater monitoring in the OU5 monitoring report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Currently this site is undergoing an RI as part of LTM optimization to evaluate pesticide contamination in the groundwater and subsurface soils to evaluate potential risk after which the site remedy will be assessed as appropriate. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1022_FTWW-037_FIRE FIGHTING TRAINING AREA

Env Site ID: FTWW-037

Cleanup Site: FIRE FIGHTING TRAINING AREA

Alias: OU4/D-2

Regulatory Driver: CERCLA

RIP Date: 2/15/2012

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1981
SI:	1/31/1981	12/31/1981
RI/FS:	12/31/1993	11/30/1995
RD:	- -	- -
IRA:	- -	- -
RA(C):	10/31/1995	9/30/1996
RA(O):	2/15/2012	9/30/2054
LTM:	- -	- -

Site Narrative: The Fire Training Pits (FTP) are located south of Montgomery Road between the aviation brigade motor pool and the southern ammo supply point. The FTP source area consists of two known FTPs (3A and 3B) and a depression area. The FTPs were used for training fire department and rescue crews at Fort Wainwright. The specific substances and volumes that were incinerated at each location were not recorded. Typically, the fuels included diesel jet propellant (JP) 4 waste oils and solvents. The bottoms of the FTPs were not lined with impervious material when constructed. It has been estimated that 1,500 to 2,300 gallons of flammable liquids were burned per year in the FTPs. COCs at the FTPs were limited to localized petroleum hydrocarbon hot spots in surface and shallow subsurface soils and TCE was the only reported contaminant detected above the MCL in groundwater in 1993 (19 ug/L). The OU4 ROD had an appended NFA decision document (DD) which stated a planned removal action of contaminated soils at FTP would result in UU/UE and was the final action for the site. A total of 1,860 cy of contaminated soil was excavated in 1996. Confirmation soil sampling indicated all petroleum contaminated soil had been removed from the site. A 1999 DD stated the removal action was adequate and the site was closed. The statements of the site being adequately cleaned up and closed were addressed in the first five-year review in 2001 and not discussed in any subsequent five-year review. The remedial action (operation) (RA(O)) phase was reopened in 2012, to conduct additional investigations in 2013 due to concerns regarding the potential for the construction projects to encounter emerging contaminants, in particular, per- and polyflouoroalkyl substances (PFAS). The 2013 investigation identified perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) at the site and in 2014, and ADEC requested a more robust investigation for these two PFAS. Sampling for PFOS/PFOA occurred in 2015 and identified high concentrations of the substances. Additional PFAS sampling was conducted in August 2020 as part of the nationwide PFAS site inspection (SI) effort. PFOS, PFOA and/or PFBS were detected in groundwater above the screening levels outlined in the July 2022 OSD Memo. Results indicate that a PFAS source area is present despite excavation activities. Cleanup/Exit Strategy- Best management practices will be executed to protect exposure to the contamination present. It is unclear at

this time what the conclusions of the investigations will be or what if any actions will need to be taken beyond the study phase. RI associated with PFAS is carried under FTWW-PFAS_PFAS (02871.1131). LUCs are voluntarily established via Garrison Policy #38 with the concurrence of regulators, restrictions of soil disturbances and restriction on groundwater use. LUCs are detailed and annually inspected in the Annual IC Report.

02871.1023_FTWW-038_FT. WAINWRIGHT LANDFILL PLUME

Env Site ID: FTWW-038

Cleanup Site: FT. WAINWRIGHT LANDFILL PLUME

Alias: 0U4/1A

Regulatory Driver: CERCLA

RIP Date: 9/30/1997

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1988
SI:	1/1/1989	6/7/1991
RI/FS:	6/8/1991	9/27/1997
RD:	9/28/1997	4/30/1998
IRA:	- -	- -
RA(C):	6/30/1997	9/30/1997
RA(O):	9/30/1997	9/30/2054
LTM:	- -	- -

Site Narrative: The source area is the inactive portion of the Fort Wainwright Landfill, which covers approximately 14 acres. This area is located west of Fort Wainwright's active landfill, which is located north of River Road. The RI was completed in 1994. Sampling results indicated unacceptable levels of VOCs, SVOCs, and metals in the groundwater above USEPA risk-based concentration at the time. Possible discharge to the Chena River and transport to down gradient wells were issues of concern. The chosen alternative in the OU4 ROD, signed in September 1996, was a phased approach. The first phase included capping the inactive portion of the landfill, which was completed in September 1997. The alternative also included monitored natural attenuation (MNA), monitoring of groundwater, and ICs to prevent use of contaminated groundwater and restrict site access with fencing. The second phase would include evaluation of potential groundwater treatment if contaminant levels increase (which has not been shown to date). Groundwater contamination is localized and is not migrating. Chemical-specific cleanup goals for groundwater are based on an industrial exposure risk of 1 x 10-4 and are outlined in the OU4 ROD as 5ug/L benzene, 70 ug/L cis-1,2-dichloroethene, 5.2 ug/L 1,1,2,2-tetrachloroethane, 5 ug/L 1,1,2-trichloroethane, 5 ug/L trichloroethene, 2 ug/L vinyl chloride, and 6 ug/L bis(2-ethylhexyl) phthalate. The Landfill CAT Shed (Building 1191) is located south of the active Fort Wainwright Landfill off of River Road. This building had a septic system and leach field (which has since been closed) that was investigated in 2010 to acquire data needed to support the closure of USEPA Underground Injection Control permitted leach fields. During that investigation benzene was detected in the groundwater at a concentration slightly above the ADEC CUL. In follow up investigation conducted in 2012, sampling of three monitoring wells occurred and no benzene was detected above ADEC CULs in the groundwater down gradient of the leach field; however, benzene was detected above the ADEC CUL in one well located cross gradient. Since this well is located down gradient of the active portion of the landfill the benzene detections may be related to the landfill, and not the leach field. The three wells were added to the OU4 monitoring network; however, monitoring well AP-10259 was decommissioned in 2017. The site is currently in the RA(O) phase with groundwater monitoring, but no active treatment is occurring. Because remedial

action goals (RAG) have not been achieved, the site will remain in the RA(O) phase. There has been no significant reduction of contaminants in this source area. Groundwater monitoring is currently conducted semiannually and is reported in the annual OU4 Monitoring Report. ICs are inspected annually and reported in both the OU4 Report and more specifically in the Annual IC Report. In August 2020, this source area was sampled PFAS as part of the nationwide PFAS SI effort. PFOA were detected in groundwater above the screening levels outlined in the July 2022 OSD Memo. Results indicate that a PFAS source area is present. An RI will be conducted for PFAS at this source area. The RI associated with PFAS is carried under FTWW-PFAS_PFAS (02871.1131). Evaluation of the conceptual site model with review of the aquifer(s), and its interaction with permafrost, is a 10-year cycle requirement currently being evaluated. Based upon the fifth five-year review, remedial action operation optimization may require further delineation for 1,4-dioxin that was found within the groundwater plume. At this time 1,4-dioxin has been added to the OU4 monitoring and has been in the acceptable USEPA acceptable risk range. At the completion of delineation and risk evaluation, the remedy will be assessed. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data, which is semiannually at this time. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1024_FTWW-047_DRMO SALVAGE YARD

Env Site ID: FTWW-047

Cleanup Site: DRMO SALVAGE YARD

Alias: OU2/1&4/S1

Regulatory Driver: CERCLA

RIP Date: 5/31/1998

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1988
SI:	1/1/1989	7/20/1993
RI/FS:	7/21/1993	3/31/1997
RD:	4/30/1997	6/30/1997
IRA:	- -	- -
RA(C):	7/31/1997	5/31/1998
RA(O):	9/30/1997	9/30/2054
LTM:	- -	- -

Site Narrative: The Defense Reutilization and Marketing Office (DRMO) Yard is part of OU2 and is located along Badger Road near the Richardson Highway on the eastern boundary of Fort Wainwright. It is made up of multiple subareas- DRMO-1, DRMO-2, DRMO-3, DRMO-4, and DRMO-5. POL contamination associated with subareas DRMO-1, DRMO-2, DRMO-3, and DRMO-5 is regulated by the two-party agreement and discussed under FTWW-091 (02871.1068). Other solvent contamination at subareas DRMO-1 and DRMO-4 is handled under the federal facilities agreement (FFA). The DRMO-1 subarea is located in the central and north-central portions of the yard. COCs include solvents and petroleum. Two treatment systems were installed in 1998 and later shut down for a rebound study before being decommissioned in 2008. PCE contamination has persisted in the groundwater. A treatability study injected a bio-stimulant in 2009 and 2010. No additional monitoring is scoped for this treatability study. A potable water well is located within the DRMO-1 petroleum plume near the PCE groundwater contamination. Nested wells have been installed upgradient to the potable well and are sampled to ensure the solvent plume is not migrating into the drinking water well. The potable water well is sampled annually in the spring to ensure that the contaminated plume has not migrated to the well. The water from this well is treated prior to use. DRMO-4 subarea includes the Alaska Railroad spur line in the southern portion of the DRMO Yard. Groundwater monitoring in this area in the early 2000s detected solvents in the groundwater. Injection of a chemical reduction compound was completed in 2009 and 2011 to stimulate reductive de-chlorination but further monitoring is not planned. Groundwater monitoring has been reduced based on Monitoring and Remediation Optimization System (MAROS) analysis and Restoration Program Manager (RPM) approval from semiannual to annual at the DRMO-1 (three-party) and DRMO-4 (three-party) subareas and is reported in the annual OU2 Monitoring Report. ICs are inspected annually and reported in both the OU2 Report and more specifically in the Annual IC Report. In August 2020, PFAS sampling was conducted as part of the nationwide PFAS SI effort. PFOS and PFOA were detected in groundwater above the screening levels outlined in the July 2022 OSD Memo. RI associated with PFAS is carried under FTWW-PFAS_PFAS (02871.1131). Cleanup/Exit Strategy- During the

RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data which is annually at this time. Best management practices will be executed to protect exposure to the contamination present. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1027_FTWW-050_NORTH POST SITE

Env Site ID: FTWW-050

Cleanup Site: NORTH POST SITE

Alias: 2PY/REM/2A

Regulatory Driver: CERCLA

RIP Date: 3/27/1997

RC Date: 12/13/2013

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/1/1984	12/31/1984
SI:	1/1/1985	5/1/1990
RI/FS:	5/2/1990	3/31/1997
RD:	4/30/1997	6/30/1997
IRA:	- -	- -
RA(C):	12/2/1996	3/26/1997
RA(O):	3/27/1997	12/13/2013
LTM:	12/13/2017	9/30/2054

Site Narrative: The site consists of 45 acres that extended north from the slough at the edge of Dogwood Street to the Chena River, adjacent to family housing. Contamination investigations were initiated in September 1985 which identified five sites of contamination ranging from DRO, GRO, BTEX, organochlorines, and metals in soil and groundwater. Sources were identified as USTs (Site #2 and #4), Pipeline breaks (Site #3), and the slough being filled with debris. The debris documented was drums coal ash and other solid debris (Sites #1 and #5). Sub area Site #3 is pulled out and is now referenced at FTWW-081 (02871.1058). Subareas #1 and #5 (North Post Sink Hole) are now encompassed in FTWW-118 (02871.1129) and are under an RI. Subareas #2 and #4 remained as this source area and had soil removal and treatment action in 1993 in conjunction with the investigation. Two programs were operating simultaneously the ADEC UST RI/FS was completed in October 1995 and the CAP (DD/remedial design (RD)) was completed April 15, 1996. The site was entered into the CERCLA program initially and placed in OU2 and had an NFA decision for the CERCLA process in the OU2 ROD March 1997. As part of the ADEC CAP, an AS/SVE system was installed to treat the POL-contaminated soil and groundwater adjacent to the Chena River to the north and west and began operation in 1997. The system was shut off in November 2000, when it appeared RAGs had been achieved. An evaluation completed in June 2004 recommended LTM for MNA. The AS/SVE system was decommissioned in 2010. The 2013 monitoring report ADEC December 2013 response letter gave the site a response complete (RC) determination with ICs to prevent digging or other construction activities without coordination with ADEC. Results of an annual LUC inspection are included in the annual IC Report. Groundwater monitoring wells were decommissioned in 2017. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1029_FTWW-052_UST, BLG 3015 (264, #265)

Env Site ID: FTWW-052

Cleanup Site: UST, BLG 3015 (264, #265)

Alias: 2PY/OU5/S6

Regulatory Driver: RCRA-I

RIP Date: 5/31/1999

RC Date: 5/31/1999

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	1/31/1981	12/31/1988
INV:	1/31/1989	1/31/1990
CAP:	2/1/1990	5/30/1999
DES:	- -	- -
IRA:	- -	- -
IMP(C):	5/30/1999	5/31/1999
IMP(O):	- -	- -
LTM:	6/1/1999	9/30/2054

Site Narrative: Building 3015 located southwest of the flight line on Montgomery Road, between Whidden and Meridian Roads, is a two-story concrete block facility built in 1954. Building 3015 USTs were given an NFA and the pits were referred to the two-party agreement via the OU1 ROD that also established industrial LUCs for FTWW-004 DEH Main Shop (02871.1004). Under the two-party program USTs #264 (5,000-gallon motor gasoline (MOGAS)), and #265 (5,000-gallon diesel), were removed in June 1989 and replaced by USTs 264A and 265A. During the removal of the USTs, 5,300 cy of soil was excavated and thermally remediated for diesel fuel contamination. A soil and groundwater investigation during the SI confirmed that the contamination present at the site was removed with the USTs. RAOs for soil were - DRO 200 mg/kg, GRO 100 mg/kg, benzene 0.5 mg/kg, and total BTEX 15 mg/kg. Based on these investigations, Building 3015 USTs #264 and #265 received NFA status under the two-party agreement. Cleanup complete was granted in March 1997 and documented in the OU5 ROD. Two USTs (155 and 156) were removed by the Tank Compliance Program in 2020. Results of this action and amount of remaining contamination left in the ground are still pending. Contaminated media left in the ground for the FTWW-005 Auto Hobby Shop (Building 1053) (02871.1005) LUC is incorporated into this site as further LTM optimization may be required for this area based upon the latest tank removal action. Results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, reporting, and enforcement of LUC/ICs. It is assumed this responsibility will be maintained by the Army.

02871.1032_FTWW-055_FAIRBANKS FUEL TERMINAL

Env Site ID: FTWW-055

Cleanup Site: FAIRBANKS FUEL TERMINAL

Alias: OU3/1B

Regulatory Driver: CERCLA

RIP Date: 9/30/2000

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1988	6/5/1990
SI:	6/6/1990	9/12/1991
RI/FS:	9/30/1992	4/9/1996
RD:	4/10/1996	6/30/1999
IRA:	7/31/1996	7/31/1996
RA(C):	7/31/1996	9/30/1997
RA(O):	9/30/2000	9/30/2054
LTM:	- -	- -

Site Narrative: The Fairbanks Fuel Terminal (FFT) is part of OU3, designated as Remedial Area 1b, and encompasses the groundwater contamination migrating off Birch Hill. This site covers about 250 acres in the northwest corner of Fort Wainwright and includes five contributing areas- Building 1182 Product Recovery System, Lazelle Road, Former Building 1173, Thaw Channel, and the Truck Fill Stand. Most soils at FFT were transferred to OU5 and are handled under FTWW-096 Birch Hill Above Ground Storage (02871.1073). The RI and ROD (1996) focused on contamination migrating in groundwater to the base of Birch Hill. The ROD RAGs for COCs in the groundwater are benzene 5 ug/L, ethyl benzene 700 ug/L, ethylene dibromide 0.05 ug/L, 1,2-dichloroethane5 ug/L. An explanation of significant differences (ESD) changed the RAGs for the following COCs – 1,2,4-trimethylbenze 56 ug/l and 1,3,5-TMB 60 ug/L. Three AS/SVE treatment systems were installed (Lazelle Road, Building 1173 and Truck Fill Stand) to treat contamination at the site. All three systems have been shut down and subsequently decommissioned. Investigations following the ROD indicated the aerial extent of contamination in the groundwater was larger than previously thought and included free-product in fractured bedrock on Birch Hill. These investigations also indicated that groundwater contamination was migrating off-post via an area of thawed permafrost (Thaw Channel). Groundwater contamination in this area along the post boundary was treated via an air sparge curtain. The system was installed in 1999 and expanded in 2000. A product recovery system was also installed within the fractured schist/bedrock zone on Birch Hill in 2000 to capture free-product (petroleum) found in groundwater within this area. This system was very successful and captured over 5,500 gallons of free-product. Two churches are west of the installation's western boundary and had similar COCs in their drinking water wells as those found throughout the FFT. Product recovery was captured in the IRA phase though it did not go through all the necessary requirements and documentation for a CERCLA IRA. The OU3 ROD assumed that since the churches were immediately down gradient of known plumes on the installation the contamination in the church wells could have been caused by groundwater migration off the installation that in the spirit of being good neighbors the churches should be compensated accordingly. A commercial drinking water service has been provided to

bordering churches since 1995. One of the churches opted out of the water delivery service in 1999, but the other church is still receiving drinking water monthly. It is presumed that the church will continue to receive drinking water until site close out and the presumed duration for the RA(O) phase is indefinite. All of the treatment systems have either been decommissioned or moth-balled and placed in cold storage in Building 1182. Contamination in the groundwater remains above the RAGs within some areas of the FFT. Groundwater monitoring has been reduced from semiannual to annual based on MAROS analysis and RPM approval. The fourth five-year review (2016) further addressed the protectiveness concern at this site and included a recommendation to perform a data gap investigation to recommend a future course of action for the site. The data gap analysis was performed in 2017. The groundwater investigation to address the data gap analysis recommendations was conducted in 2018 and recommended adding the eight recently installed wells from this analysis to the annual groundwater sampling event. Groundwater sampling results are reported in the annual OU3 Monitoring Report. ICs are inspected annually and reported in both the OU3 Report and more specifically in the Annual IC Report. ICs requiring long-term groundwater monitoring, fencing, signs, access restrictions and SIs were placed on this site via the OU3 ROD. Cleanup/Exit Strategy- During the RA(O) phase groundwater monitoring will continue to occur indefinitely at a frequency supported by current data which is annually at this time. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1034_FTWW-057_UST, BLDG 3483(#277,#278)

Env Site ID: FTWW-057

Cleanup Site: UST, BLDG 3483(#277,#278)

Alias: 2PY/UST

Regulatory Driver: RCRA-I

RIP Date: 8/31/1994

RC Date: 10/15/2012

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	1/31/1987	12/31/1987
INV:	8/31/1991	2/28/1993
CAP:	5/31/1992	7/31/1993
DES:	7/31/1993	7/31/1994
IRA:	6/30/1990	8/31/1990
IMP(C):	8/31/1994	8/31/1994
IMP(O):	8/15/1994	10/15/2012
LTM:	11/15/2012	9/30/2054

Site Narrative: Former Building 3483 (VIC Buildings 3485 as of 2021) was a vehicle refueling station that had a 5,000-gallon diesel UST and 5000-gallon MOGAS UST (Tanks #277 and #278) that were installed in 1957. The building was decommissioned, and the tanks removed in June 1990 along with 300 cy of soil. A release investigation conducted from 1991 to 1993 showed soil and groundwater contamination. The CAP was completed in July 1993 calling for in situ bioremediation with AS/SVE treatment. RAOs for this site for groundwater are benzene 5ug/l toluene 1000 ug/l, ethylbenzene 700 ug/l, total xylenes 10,000 ug/l. The RAOs for soil are - DRO 100 mg/kg, GRO 50 mg/kg, benzene 200 mg/kg, toluene 100 mg/kg, ethylbenzene 0.5 mg/kg, and total xylenes 15 mg/kg. The AS/SVE was operated from 1994 to 1998. Groundwater monitoring was conducted from 1994 to 2003 at which time MNA studies indicated biodegradation and the AS/SVE was decommissioned. Groundwater monitoring was conducted in 2011 that showed a stable plume at which time the Army recommended closure of the site with ICs. Both tanks were removed and were captured in the IRA phase though it did not go through all the necessary requirements and documentation for a CERCLA IRA. A cleanup complete letter from ADEC dated Oct. 15, 2012, with requirement for LUCs resulted from the Army's recommendation. LUCs include dig permit requirements groundwater and zoning restrictions. Contamination remains above the RAOs currently within the soil in the subsurface. ICs are to protect human health from using the groundwater and to inform construction workers of the hazard if excavation is required. Results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army.

02871.1039_FTWW-062_UST,BLDG 1546(227,228,229,230,2

Env Site ID: FTWW-062

Cleanup Site: UST,BLDG 1546(227,228,229,230,2

Alias: 2PY/UST

Regulatory Driver: CERCLA

RIP Date: 9/30/1994

RC Date: 8/31/2002

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1987	2/28/1987
SI:	5/31/1990	12/31/1992
RI/FS:	5/31/1992	12/31/1999
RD:	- -	- -
IRA:	5/31/1990	9/30/1991
RA(C):	9/30/1994	9/30/1994
RA(O):	9/30/1994	8/31/2002
LTM:	8/31/2002	9/30/2054

Site Narrative: Building 1546 is located south of Gaffney Road and east of Marks Road on Fort Wainwright, on the east ramp of the north airfield taxiway. The Building 1546 aircraft refueling system was installed in 1955. This site contained seven USTs with associated underground piping and aircraft refueling points. Six tanks (#227 to #231 and #233) had capacities of 50,000 gallons each and Tank 232 had a capacity of 25,000 gallons. The tanks stored aviation gas and JP-4 jet fuel. An eight-inch diameter supply/return line linked the refueling system to the post-wide fuel distribution system. The tanks were removed and contaminated soil excavated in May 1990 which was captured in the IRA phase though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Most of the associated pipelines remain in the ground. Soil and groundwater investigations were performed at the site in August 1991 November and December 1992 and September 1993. The July 1993 CAP selected RAOs or soil of DRO 250mg/kg, GRO 300 mg/kg, benzene 0.02 mg/kg. The selected RAOs for groundwater are - DRO 1.5 mg/L, GRO 1.3 mg/L, benzene 0.00036 mg/L, 1,2,4-TMB 0.012 mg/L, and 1,3,5-TMB 0.012 mg/L. The extent of contamination was determined to have been not fully characterized for soils in the CAP. An AS/SVE treatment system began operating at this site in October 1994. The system was turned off in December 1998 for a rebound study as all samplings had been under RAOs for groundwater. The Army received an NFA decision from ADEC December 1999. Groundwater sampling was conducted in 1999 and the AS/SVE was decommissioned in October 2001 soil sampling showed that contamination remained above RAOs when the system was removed. ADEC granted closure for this site in 2002. LUCs remain on this site as soil remains above RAOs. Results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army.

02871.1040_FTWW-063_NORTH REFUELING

Env Site ID: FTWW-063

Cleanup Site: NORTH REFUELING

Alias: UST/NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2031

RC Date: 9/15/2031

RC Reason: Not assigned

SC Date: 9/16/2031

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1987	12/31/1987
SI:	5/31/1990	12/31/1992
RI/FS:	5/31/1992	9/15/2031
RD:	- -	- -
IRA:	5/31/1990	9/30/1991
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: This site has been an aircraft refueling area since the early-1940s. The old system consisted of a pump Building 1514, along with one 25,000 gallon and three 50,000-gallon USTs (tank # 221-224). The building USTs and contaminated soil associated with the USTs were removed in 1990 under Army authority and were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Piping to and from Building 1514 was abandoned in place and five monitoring wells were installed to monitor groundwater contaminant migration from the site. The July 1993 CAP called for MNA with the following RAOs for soil - DRO 100 mg/kg, GRO 50 mg/kg, total BTEX 10 mg/kg, and benzene 0.1 mg/kg. RAOs for groundwater are total recoverable petroleum hydrocarbon 0.015 mg/L, benzene 0.005 mg/L, ethylbenzene 0.7 mg/L, toluene 1.0 mg/L, xylene 10 mg/L, total BTEX 0.01 mg/L, and naphthalene 0.62 mg/L. Groundwater was monitored until 1999 when the state of Alaska issued an NFA planned letter on Dec. 17, 1999. Based on this letter, groundwater monitoring was stopped and LUCs were assigned to protect soil from disturbance as RAOs had not been achieved. In 2019, new structures were constructed to support firefighting fueling operations on this site, the site formerly known as Bureau of Land Management (BLM) Retardant Spill, and formerly known as east condensate line. During the excavation of the area, unknown drums were discovered north of former Building 1514. The former UST cradles were unearthed, and 2,000 cy of soil were screened out above project action limits for POLs, BTEX, and TMB. The site was expanded to incorporate the entire geographical footprint capturing two other source areas that have newly discovered contaminants that are similar and moved from the two-party program to the three-party program for investigation purposes. Re-evaluation of the site to delineate the extent of contamination in groundwater and soil is required prior to evaluation of the risk to human health and the environment. In August 2020, this source area was sampled for PFAS as part of the nationwide PFAS SI effort. No PFAS were detected above the screening levels outlined in the July 2022 OSD Memo, although sample will likely occur in this site's proximity during the RI. A preliminary source evaluation (PSE) was conducted in 2020 that identified further contamination of DRO, GRO, PAH, 1,2,4- TMB, 1,3,5-TMB, ethylbenzene, naphthalene, m,p

xylene, RCRA metals, 4,4'-DDD, and heptachlor epoxide. Cleanup/Exit Strategy- The results of the RI will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. LUCs will remain in effect for soil until such time as a new risk evaluation has been completed. Results of an annual LUC inspection are included in the annual IC Report.

02871.1041_FTWW-064_BIRCH HILL TANK FARM UST#345-35

Env Site ID: FTWW-064

Cleanup Site: BIRCH HILL TANK FARM UST#345-35

Alias: 2PY/UST

Regulatory Driver: RCRA-I

RIP Date: 6/1/1996

RC Date: 6/1/1996

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	5/31/1990	9/30/1990
INV:	1/31/1991	12/31/1992
CAP:	10/31/1993	6/1/1996
DES:	- -	- -
IRA:	8/31/1991	6/30/1994
IMP(C):	- -	- -
IMP(O):	- -	- -
LTM:	2/15/2013	9/30/2054

Site Narrative: The Birch Hill Tank Farm USTs, also known as the East Birch Hill Tank Farm (EBHTF), is in the northeast portion of Fort Wainwright, north of the Chena River. The EBHTF was constructed in 1943 to store fuels that were transported to Fort Wainwright from Whitehorse Canada via the Canadian Oil (CANOL) pipeline. The tank farm consisted of 34 50,000-gallon USTs (T350-T384), underground piping, concrete valve pits, and three truck fill stands. The tank farm was connected to the Railcar Off-Loading Facility (ROLF) located on the south side of the Chena River, by an eight-inch fill line. A network of six-inch main lines and four-inch branch lines connected each individual tank to the eight-inch fill line. Products reportedly stored in the 12-foot diameter by 66-foot-long steel USTs included high-octane aviation gasoline, jet fuels, and diesel fuel. Use of the facility was terminated upon completion of the Haines-Fairbanks Pipeline in 1955 because it connected to the Fairbanks Fuel Terminal located to the west of the EBHTF. In 1971, the portion of the Haines-Fairbanks Pipeline south of Eielson Air Force Base was closed, but the Eielson to Fairbanks Pipeline remained active for another year before being shut down in 1972. All the tanks and most of the valve pits and piping were removed during the 1970s with subsequent removals in the years to follow. Twenty-four of the USTs in the EBHTF were removed from the site during the 1970s. In 1991, eight more USTs were located excavated and removed. The tank removals were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. The remaining two tanks were removed in 1994. The underground pipeline connections were capped and abandoned in place. All valve pits and truck loading and unloading stands remain in place. No operating record or spill history was located during the records search. The June 1996 the CAP set RAOs for groundwater of benzene 99 ug/L, ethylbenzene 10,220 ug/L, toluene 20,440 ug/L, total xylenes 204,000 ug/L. RAOs for soil are benzene 65 mg/kg, benzofluoranthene 160 mg/kg, 1,2-dibromomethane 1.1 mg/kg, ethylbenzene 30,200 mg/kg, toluene 14,000 mg/kg, total xylenes 36,000 mg/kg. LUCs for industrial land use were implemented. ADEC granted closure of this site in the June 1996 CAP referencing the selected remedy of active treatment for FTWW-084 Fairbanks-Eielson Pipeline Spill (02871.1061) via the OU3 ROD to act as containment for the migration of

contamination in groundwater downgradient into the bedrock aquifer. POLs were detected in monitoring wells of source FTWW-084 which is located downgradient of this site. In 2015 the Army initiated a data gap investigation to determine if the POL contamination in wells at FTWW-084 is related to the UST farm and determined that further investigation is required of this site. LTM optimization is needed for delineation due to petroleum contamination remaining at UST-346 (T-358) and truck fill stand TF 3. Evaluation of potential groundwater impacts to mile post site 3.0 (02871.1061 FTWW-084) from this contamination needs further investigation. At the source area the Army has implemented LUCs which restrict digging or well development at the source area. Results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1043_FTWW-066_BEACON TOWER LANDFILL

Env Site ID: FTWW-066

Cleanup Site: BEACON TOWER LANDFILL

Alias: OU1/D-6

Regulatory Driver: CERCLA

RIP Date: 9/15/2025

RC Date: 9/15/2025

RC Reason: Not assigned

SC Date: 9/16/2025

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1989	12/31/1990
SI:	8/31/1991	9/15/2025
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The Beacon Tower Landfill reportedly is located east of the Fort Wainwright north runway on a hill in the approach/departure zone. Before 1954, the area was identified as Army Camp No. 3 and contained three temporary structures and a beacon tower. The suspected source area was identified as a potential source of contamination in 1983. The source area allegedly was used as a sanitary landfill during the 1967 Chena River flood. Landfill operations allegedly consisted of surface burning followed by burial. The 1992 PSE included reviews of aerial photographs and site visits. The aerial photographs revealed no clear indication of waste disposal or burning activities in the area. In addition, field inspections failed to locate the landfill. Based on the results of the PSE, an NFA decision was granted by the Army, ADEC, and USEPA. This site received NFA status in the OU1 ROD, June 1997. In 2021 during airfield approach clearing operations, drums and other buried debris were encountered. The site was reopened in the FFA in August 2021. A PSE is in progress. The objective of the PSE is to investigate the waste buried in the landfill and determine if residual contamination exists in the soil or groundwater that may present a threat to human health or the environment. Cleanup/Exit Strategy- The results of the PSE will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site.

02871.1044_FTWW-067_801 DRUM BURIAL SITE

Env Site ID: FTWW-067

Cleanup Site: 801 DRUM BURIAL SITE

Alias: OU1/1A/D16

Regulatory Driver: CERCLA

RIP Date: 6/30/2001

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1988
SI:	8/31/1991	1/31/1992
RI/FS:	11/30/1993	6/27/1997
RD:	9/30/1997	6/30/2001
IRA:	- -	- -
RA(C):	9/30/1997	6/30/2001
RA(O):	10/31/1997	9/30/2054
LTM:	- -	- -

Site Narrative: FTWW-067 is part of OU1. This site is located between the west bank of the Chena River and River Road on Fort Wainwright and consists of approximately 20 acres. The site was discovered during the initial excavations for a storm drain at the 801 housing construction project. In 1987, a large quantity of drums was removed from the construction area during initial construction. Another large drum removal was undertaken in 1992. Overall, over 200 drums were found, roughly half of which contained product. Sampling results showed high levels of POL pesticides and solvents in soil and groundwater. Additional drums were found and removed during the 1995 and 1996 RI. During the 1996 investigation, 850 cy of contaminated soil were removed from the site and stockpiled for later use in a phytoremediation treatability study. The OU1 ROD was signed in 1997 and recommended further removal action (if additional drums were found) monitoring POL, pesticides, and solvents in the groundwater ICs restricting site access construction and well development and MNA for groundwater. The COCs and their RAGs for soil include aldrin (3.8 mg/kg) and dieldrin (4.0 mg/kg). Groundwater COCs and their respective RAGs include aldrin (0.004 ug/L), dieldrin (0.004 ug/L), 1,1-dichloroethene (7 ug/L), benzene (5 ug/L), and vinyl chloride (2 ug/L). A total of 16 monitoring wells have been installed across the site to determine potential contamination migration. These wells were included in a monitoring network. Sampling was conducted annually from 1998 until 2005. A cleanup operations and site exit strategy (CLOSES) evaluation was completed in March 2004 and concluded that despite the fact that contamination is still above cleanup levels, the plumes are considered stable and not increasing in size. Based on the CLOSES evaluation, the RPM determined the COCs were not migrating towards the Chena River and the number of wells being sampled could be reduced from the initial 16 to the eight wells in the immediate area of concern. The RPM also decided that the monitoring frequency could be reduced from annual to every five years. Monitoring will continue until MNA reduces the contaminant concentrations to below the OU1 ROD CULs. The site is currently in the RA(O) phase with groundwater monitoring being conducted annually and on a five-year cycle. Airfield approach clearing that occurred in 2021 revealed further potential drum burial areas that will require further investigation and removal in

accordance with the OU1 ROD. An evaluation for the OU1 ROD to add RAGS for 1,2-DCE, naphthalene, 1,2,4-TMB, and DRO is needed to determine risk and appropriate numerical values. A remedial action contract is in progress. The objective of the remedial action is to remove all buried drums and debris as well as any associated contaminated soil and determine if residual contamination exists in groundwater that may present a threat to human health or the environment. Groundwater sampling results are reported in the annual OU1 Monitoring Report. ICs are inspected annually and reported in both the OU1 Report and more specifically in the Annual IC Report. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data, which is every five years at this time. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1045_FTWW-068_OU-5 OPEN BURN/OPEN DETONATION

Env Site ID: FTWW-068

Cleanup Site: OU-5 OPEN BURN/OPEN DETONATION

Alias: OU5/D-17

Regulatory Driver: CERCLA

RIP Date: 4/6/1999

RC Date: 4/6/1999

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1989	1/31/1990
SI:	1/31/1989	1/31/1990
RI/FS:	2/28/1995	4/6/1999
RD:	- -	- -
IRA:	- -	- -
RA(C):	4/6/1999	4/6/1999
RA(O):	- -	- -
LTM:	4/6/1999	9/30/2054

Site Narrative: The physical location of OU5 open burn/open detonation (OB/OD) unit is north of the Tanana River and south of the flood control dike. A new bermed area measuring about 150 x 450 feet was constructed in 1988. The OB/OD area was used by the Army from the mid-1960s to 1989. The site was reportedly used for disposing of unexploded ordinance (UXO), unused propellants (black powder), rocket motors, small-arms ammunition, and other hazardous materials. Operating records are not available for this site. The OB/OD Area was designated as a RCRA-regulated unit and was scheduled for closure under Title 40, part 265, of the 40 CFR 265, subpart G and P. The area was included in OU5 under the FFA for investigation. COCs limited to this area were barium, chromium, lead, and munitions and explosives of concern (MEC) but all were below Region 3 RBCs of 10-6. An RI was conducted in 1996 and soil/water samples did not identify any contaminants above action levels of potential applicable or relevant and appropriate requirements (ARAR). An ecological and human health risk assessment completed as part of the RI indicates very low risk at this site, and for this reason, the OU5 ROD recommended NFA with ICs that monitor and restrict access and restrict land/groundwater use for this site. Public access to the OB/OD area is restricted by Range Control at Fort Wainwright that maintains a locked gate along the access road. The OU5 ROD mandates the continuation of ICs at the OB/OD area due to concern about potential human exposure to UXO. The USEPA, through signing the OU5 ROD, agreed to delay final RCRA closure of the OB/OD unit until final clearance of the operating range occurs. Due to the location of the OB/OD area on an operational range and continued presence of UXO, RCRA closure at this time would be complex with little environmental benefit. Previous five-year reviews determined that ICs for the OB/OD area remain protective. The Army has evaluated whether delay of closure affects the OB/OD area and has determined it has not. ICs are inspected annually and reported in both the OU5 Report and more specifically in the Annual IC Report. Cleanup/Exit Strategy- The OB/OD area will remain in the LTM phase until such time as the range is no longer operational or the installation is closed. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE in soil and groundwater, the Army is responsible

for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this cost and responsibility will be maintained by the Army indefinitely.

02871.1049_FTWW-072_OIL WATER SEPARATOR AT BLDG 1168

Env Site ID: FTWW-072

Cleanup Site: OIL WATER SEPARATOR AT BLDG 1168

Alias: OU2/3A/SP8

Regulatory Driver: CERCLA

RIP Date: 4/30/1995

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1981
SI:	3/31/1992	2/28/1993
RI/FS:	11/30/1993	3/31/1994
RD:	4/30/1994	5/31/1994
IRA:	6/30/1994	6/30/1994
RA(C):	6/30/1994	4/30/1995
RA(O):	9/30/1994	9/30/2054
LTM:	- -	- -

Site Narrative: The Former Building 1168 site is located near the western boundary of Fort Wainwright, north of the Trainor Gate Road. The building was constructed in 1950 as a lubricant oil and vehicle storage facility and was converted to a POL laboratory around 1962. The building was demolished in 1998. The primary source of contamination was a former leach well connected to an oil/water separator system. Contamination covers an area of approximately 50 feet in diameter (approximately 8,000 square feet) around the leach well. COCs found initially at this site included POL solvents and heavy metals in soil and groundwater. The OU2 ROD RAGs for the groundwater COCs are benzene 5ug/L, TCE 5ug/L, tetrachloroethene 5ug/L, vinyl chloride 2ug/L, 1,1 DCE 7ug/L, and 1,2 DCE 70ug/L, though vinyl chloride 1,1 DCE and 1,2 DCE were not detected. RAGs for soil COCs are BTEX 15mg/kg, benzene 0.5 mg/kg, GRO 100 mg/kg, and DRO 200 mg/kg. A remedial action was undertaken for in situ treatment of contamination with the installation of an AS/SVE system, completed in November 1994. The system was turned off in 1998 when contaminant levels decreased to below RAGs and was decommissioned in 2003. A CLOSES evaluation was completed in FY04 that recommend continuation of limited sampling. Sampling was anticipated to continue through FY10 and then the site would be closed. However, benzene levels in the groundwater rebounded above RAGs after decommissioning of the AS/SVE. An injection of an in situ chemical reduction and enhanced bioremediation compound was completed in 2010 to address residual benzene contamination. An interim remedial action completion report was done in June 2019 and the site was transitioned to two-party program and out of the OU2 ROD. Groundwater monitoring was transitioned from annual to every five years in January 2020 based upon 2019 results. ICs are inspected annually and reported in the Annual IC Report. The next groundwater sampling will occur in 2024. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data which is every five years at this time. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance,

periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1055_FTWW-078_TAR SITES

Env Site ID: FTWW-078
Cleanup Site: TAR SITES
Alias: NFA
Regulatory Driver: RCRA-C
RIP Date: 9/30/2024
RC Date: 9/30/2024
RC Reason: Not assigned
SC Date: 9/30/2024
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: No
Hazardous Ranking Score: 0
RRSE:
MRSPP: N/A

Phase	Start	End
RFA:	3/31/1992	9/30/1992
CS:	3/31/1992	9/30/2024
RFI/CMS:	- -	- -
DES:	- -	- -
IRA:	- -	- -
CMI(C):	- -	- -
CMI(O):	- -	- -
LTM:	- -	- -

Site Narrative: The 1990 VSI identified Tar Disposal Pits on Fort Wainwright as D-9 and D-12 within their SWMU classification and are listed as part of the RCRA Part B Permit. The VSI indicated that various accounts estimated there were as many as 17 sites situated throughout the installation. The operating dates are unknown, none were still in use, and most likely were used for brief durations in the 1940s and 1950s for the disposal of tar waste. Five were identified on VSI sites-map and four of the source areas were reportedly investigated as part of the OU2. These four are located on Fort Wainwright- north of the south post soccer field (South Gate Road), at Glass Park next to Building 4040, northwest of the golf course (Chena River Tar Site), and west of the power plant cooling pond next to the railroad (Doyon Clear well Site). Due to the potential for the tar to leach from the sites, the areas were sampled in June and July of 1992. The tar samples were analyzed by Toxicity Characteristic Leaching Procedure and were found to have no potential to leach to groundwater. Based on these sampling results, it was determined at the time that the tar sites had no evidence of migration to groundwater. An NFA under CERCLA was documented in the OU2 ROD. At the time of the VSI, no RCRA corrective action was recommended; however, the Army was encouraged to physically remove the tar and restore the area. Sites were NFA until additional actions required the installation to take measures to address the issues of the Tar Pits as necessary. The Southgate source area has been excavated and tar removed as part of a migratory bird issue mitigation. This action did not completely remove all the tar source but did provide some relief to this problem. The Tar Pit at Glass Park was addressed, and tar removed to improve the recreation area and deter potential leaching to the Chena River. The Tar Pit northwest of the Golf Course (D-9) was recently opened because of construction/replacement of the Chena River Bailey Bridge. This action was initially responded to by the ADEC Spill Response Team. It has subsequently been transferred to the state of Alaska Contaminated Sites program. Also, an interim corrective measures report submitted November 2020 is under review by the RCRA Permit Administrator. A new tar pit has been identified in what the VSI describes as being the large field contained by Oak Avenue South Gate Road and Alder Avenue. This area is on the North side of Oak Avenue and is comingled with the diesel fuels oil (DFO) fuel line being

investigated near Building 3728. This site has a PSE that is currently under review by the Army. These areas remain SWMUs in the RCRA Part B permit. Cleanup/Exit Strategy- The Tar Sites will continue to be managed under the RCRA B Permit as SWMUs.

02871.1056_FTWW-079_ENGINEER PARK DRUM SITE

Env Site ID: FTWW-079

Cleanup Site: ENGINEER PARK DRUM SITE

Alias: OU1/2/D13

Regulatory Driver: CERCLA

RIP Date: 7/25/1994

RC Date: 7/25/1994

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	3/31/1992	9/30/1992
SI:	3/31/1992	7/25/1994
RI/FS:	- -	- -
RD:	- -	- -
IRA:	7/31/1992	2/28/1993
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	7/15/2011	9/30/2054

Site Narrative: The Engineer Park Drum Site is located on the northeast side of Engineer Park on the south bank of the Chena River. Engineer Park has a picnic area with a football and baseball field and an area used for the BLM smoke jumper training. Drum disposal reportedly began at this site after the 1967 Chena River flood. In August and September 1992, 680 unburied drums were removed from this area. Approximately ten percent of the drums contained gasoline, kerosene, degreasing solvents, and PCBs. Following this initial drum removal, the OU2 ROD moved this source area from OU2 to OU1. A PSE and another drum removal occurred in 1993. Both drum removals were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Soil and groundwater were tested, and ground penetrating radar was used to confirm that no additional drums were present. Based on the results of the PSE, the Army, ADEC, and the USEPA have recommended that this site have NFA planned in the OU1 ROD. However, during the initial investigations at this source area, petroleum contamination was largely ignored. Because petroleum contamination is suspected to remain at the source area, the Army has implemented LUCs which restrict digging or well development at the source area. ICs are inspected annually and reported in the Annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1057_FTWW-080_DRUMS SOUTH OF LANDFILL

Env Site ID: FTWW-080

Cleanup Site: DRUMS SOUTH OF LANDFILL

Alias: NFA

Regulatory Driver: CERCLA

RIP Date: 2/28/1993

RC Date: 2/28/1993

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	3/31/1992	9/30/1992
SI:	3/31/1992	2/28/1993
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	7/31/1992	2/28/1993
RA(O):	- -	- -
LTM:	2/28/1993	9/30/2054

Site Narrative: This source area is located 2,000 feet south of the active Fort Wainwright Landfill between River Road and the Chena River. The source area includes two drum areas, the west drum area and east drum area. Historical information and records on drum disposal at this location were not available but were identified in the RCRA facility assessment as a potential source. In 1992, 573 drums were removed, 474 drums found were empty and 99 contained gasoline, kerosene, or degreasing solvents. Ground penetrating radar was used in 1993 to confirm that no additional drums were present. No contamination was detected in two subsurface soils, 11 surface soil samples, or two groundwater samples above EPA's RBCs at the time. Based on the results of the investigation, the DD concluded there was no evidence of contaminant release, the area did not pose an unacceptable risk to the human health or the environment and was signed on July 25, 1994. However, during the initial investigations at this source area, petroleum contamination was largely ignored. Because petroleum contamination is suspected to remain at the source area, the Army has implemented LUCs, which restrict digging or well development at the source area. ICs are inspected annually and reported in the Annual IC Report. Cleanup/Exit Strategy - Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1058_FTWW-081_NORTH POST PIPELINE BREAK

Env Site ID: FTWW-081

Cleanup Site: NORTH POST PIPELINE BREAK

Alias: OU2/2PY/D3

Regulatory Driver: CERCLA

RIP Date: 3/27/1997

RC Date: 12/13/2013

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/1/1984	12/31/1984
SI:	1/1/1985	5/1/1990
RI/FS:	5/2/1990	1/1/1997
RD:	5/2/1990	1/1/1997
IRA:	- -	- -
RA(C):	6/30/1992	3/27/1997
RA(O):	3/27/1997	12/13/2013
LTM:	12/14/2013	9/30/2054

Site Narrative: The eight-inch pipeline was installed from North Post to the Birch Hill UST Tank Farm in the 1940s and was used to transport aviation gas until the 1950s, it was then used until the 1960s to transport diesel fuel. The pipeline was abandoned in place in the 1960s after the tank farm was closed. Two spills were reported near this pipeline. One occurred in 1950s on the north side of the Chena River and the second one occurred in 1980 on the south side of the Chena River in the southwest corner of what is now Chena Bend housing area. The source of the spill in 1988 was a break in the line on the west end. The US Army Corps of Engineers (USACE) conducted an SI for the installation of a housing unit from 1985 to 1990 for FTWW-050 North Post Site (02871.1027) and labeled this sub area “Site 3”. In 1992, the Army used its cleanup authority to carry out a CAP that selected excavation with ex-situ treatment with RAOs for soil of benzopyrene 0.04 mg/kg, benzo anthracene 1.5 mg/kg, chrysene 7.69 mg/kg, di-benzo anthracene 0.028 mg/kg, toluene 38 mg/kg, total xylenes 4.5 mg/kg, GRO 10 mg/kg, and DRO 100 mg/kg. In 1993, 1,300 cy of soil was excavated and moved to a bioremediation cell at the Fort Wainwright Landfill. The site had MNA of groundwater for DRO, GRO, and B. Site 3 was brought into OU2 FTWW-050 North Post Site (02871.1027) and received an NFA determination in January 1997. A second removal action was conducted ADEC granted cleanup complete with ICs in 2013. The monitoring wells were removed in 2017. LUCs remain in place for soil and groundwater, as this is a residential land use area. ICs are inspected annually and reported in the Annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE in soil and groundwater, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army.

02871.1060_FTWW-083_RAILROAD OFF LOADING FACILITY

Env Site ID: FTWW-083

Cleanup Site: RAILROAD OFF LOADING FACILITY

Alias: OU3/SP3

Regulatory Driver: CERCLA

RIP Date: 7/31/2000

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1981
SI:	1/31/1988	1/31/1991
RI/FS:	9/30/1992	4/9/1996
RD:	8/31/1995	7/31/2000
IRA:	6/30/1991	9/30/1999
RA(C):	8/31/1996	7/31/2000
RA(O):	9/30/1997	9/30/2054
LTM:	- -	- -

Site Narrative: The ROLF is part of OU3 and is designated as Remedial Area 2. The site is located south of the tank farm facility across the Chena River and North of Gaffney Road. Pipes connect the FFT (FTWW-055) and the ROLF. The facility covers an area of approximately 40 acres and dates back to 1939. There are six areas associated with this remedial area - Valve Pits A, B and C, Central Header, Former Building 1144, and 8-Car Header. There are numerous pipelines remaining in the area some that connect the valve pits and headers, and others that connected to large USTs which have been removed or run to other parts of the post. Many of these pipelines have been cleaned out and removed, or abandoned in place, but many more are still in place and could act as a potential future source of contamination. Tank and pipeline removals were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Investigation, cleanout, and removal of these pipelines are being considered for additional work in the next few years. Approximately seven inches of floating product was measured in numerous monitoring wells during the summer of 1996. The findings indicated subsurface contamination existed in hot spots throughout the area especially along the pipeline system. Petroleum contamination was found in subsurface soils and groundwater surrounding Valve Pits A, B and C, along Front Street, and in surface and subsurface soils and groundwater in the center of the site. The chosen remedial alternative in the ROD, signed in April 1996, was limited treatment in areas where highest levels of contamination existed. RAGs for groundwater at this site are benzene 5ug/L, toluene 1,000 ug/L, ethylbenzene 700 ug/L, 1,2-dibromoethane 0.05 ug/L, 1,2, dichloroethane 5 ug/L, 1,2,4-TMB 14 ug/L, and 1,3,5-TMB 12 ug/L. Five AS/SVE systems were installed during the summer of 1996, and one system in 1998. Expansion of the systems was determined necessary based on the operations and monitoring. An ESD was completed in September 2002 to address the greater extent of treatment required and the associated increase in costs. At Valve Pit A, various treatment system zones have been shut down and subsequently turned back on following rebound studies. By 2005, all zones had been shut down for rebound studies but in 2007 the system was expanded to focus treatment on a hot spot in Zone 2. In 2008, this zone was shut down again and has

not been turned back on. Zone 4 of the system was decommissioned in 2009, and the remaining zones were decommissioned in 2013. The Valve Pit C system was shut down in 2001, and the Valve Pit B system was shut down in 2003. Following rebound studies, both systems were decommissioned in 2005. The Central Header system was expanded in both 1997 and again in 2000. It was operated year-round, but as contaminant concentrations decreased, various zones within the system were shut down. The system was expanded again in 2007 to focus treatment on a hot spot in Zone 7. By the end of 2009, all zones within the system had been shut down for rebound studies. The entire system was decommissioned in 2013. The Former Building 1144 system was expanded in 1997 and in 2004, additional up-gradient zones were added. The system was expanded again in 2007 to focus treatment on a hot spot in Zone 1. As contaminant concentrations decreased, various zones within the system were shut down and by the end of 2008 the entire system had been shut down. The system was decommissioned in 2012. The 8-Car Header system was shut down for a rebound study in 2002, but three zones were restarted in 2004 when benzene levels rebounded. These zones ran for an additional six months and were shut down. The system was expanded to include two additional up-gradient zones in 2004. These zones were operated year-round until 2007 when they were shut down. The entire system was decommissioned in 2012. A long-term monitoring plan and site-specific exit strategy has been discussed and incorporated into the annual comprehensive monitoring reports. RA(O) optimization may be evaluated for this site. ICs remain at this site that include fencing, signs, long-term groundwater monitoring, access restrictions, SIs, and combinations of these activities. Groundwater sampling results are reported in the annual OU3 Monitoring Report. ICs are inspected annually and reported in both the OU3 Report and more specifically in the Annual IC Report. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data which is annually at this time. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1061_FTWW-084_FAIRBANKS-EIELSON PIPELINE SPIL

Env Site ID: FTWW-084

Cleanup Site: FAIRBANKS-EIELSON PIPELINE SPIL

Alias: OU3/3

Regulatory Driver: CERCLA

RIP Date: 9/30/1999

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1981
SI:	1/31/1988	1/31/1991
RI/FS:	9/30/1992	9/30/1995
RD:	9/30/1995	9/30/2000
IRA:	8/31/1996	8/31/1997
RA(C):	8/31/1996	9/30/1999
RA(O):	9/30/1997	9/30/2054
LTM:	- -	- -

Site Narrative: FTWW-084 is part of OU3. The Haines Fairbanks Pipeline was constructed between 1954-1955 and operated until 1971. In 1971, the eight-inch pipeline portion between Eielson Mapco Refinery and the FFT, became known as the Fairbanks-Eielson Pipeline (FEP) and was operated until 1992. This site consisted of three sub areas, Mileposts 2.7, 3.0, and 15.75. The source area at Pipeline Milepost 15.75 (the intersection of Laurance Road and Robyn Drive) was caused by a spill that occurred in August 1989 when the pipeline was broken during, and Alaska DOT road construction project contamination identified was GRO and BTEX in soils and groundwater. RAGs for groundwater at this site are benzene 5ug/L, toluene 1,000 ug/L, ethylbenzene 700 ug/L, 1,2-dibromoethane 0.05 ug/L, 1,2-dichloroethane 5 ug/L, 1,2,4-TMB 14 ug/L, and 1,3,5-TMB 12 ug/L. An AS/SVE system was installed in 1996 and operated until 1997. Remedial actions were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. An NFA Technical Memo was prepared in 2006, the wells were decommissioned in 2007; ADEC removed the ICs in 2010 and issued a cleanup complete letter 2012 and it is not further discussed. The source areas at Pipeline Mileposts 2.7 and 3.0 are located at the base of the abandoned Birch Hill USTs, east of the tank farm facility on the eastern side of Birch Hill. Previous operations at an abandoned truck fill stand contaminated the soil and groundwater in this area. Petroleum-related contamination (DRO, GRO, BTEX, TMB in soil and groundwater) was detected at various locations to a depth of 15 ft bgs. An AS/SVE system was installed in 1999 and operated until 2009. 10,000 cy of soil were removed for ex situ treatment and disposal. A CLOSES evaluation in 2004 recommended continued groundwater monitoring and a wetland survey every five years. Annual monitoring was conducted until 2010 and then transitioned to a five-year cycle. The sites sit within the designation of Training Area 113 on the active range inventory that was established in 2005/2006. ICs were established at all three sites in the OU3 ROD in 1996. The third five-year review (2011) USEPA indicated that the remedies were protective but unachievable and that a technical impracticability waiver should be sought for the ARARs. However, in discussion with the USEPA prior to the third five-year review, they indicated that it would only be applicable to one COC. A data gap analysis

was conducted in 2015 and finalized in 2017 to evaluate FTWW-064 (02871.1041) upgradient impacts on the mileposts. Evaluation of potential groundwater impacts to mile post site 3.0 from FTWW-064 is further needed and is captured under FTWW-064. ICs are inspected annually and reported in both the OU3 Report and more specifically in the Annual IC Report. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data which is every five years at this time. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely. RA(O) optimization will be evaluated for achievement of RAOs.

02871.1062_FTWW-085_UST, BLDG 5110

Env Site ID: FTWW-085

Cleanup Site: UST, BLDG 5110

Alias: 2PY/UST

Regulatory Driver: RCRA-I

RIP Date: 6/30/1997

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	1/31/1981	12/31/1981
INV:	1/31/1981	12/31/1981
CAP:	5/31/1992	7/31/1993
DES:	10/31/1993	9/30/1994
IRA:	5/31/1990	10/31/1995
IMP(C):	5/31/1996	2/28/1997
IMP(O):	6/30/1997	9/30/2054
LTM:	- -	- -

Site Narrative: One UST (# 317) was located near Building 5110, the former Range Control Building, south of the Richardson Highway. The UST was removed in 1990. Fuel was delivered to a disconnected fill pipe several times over a two to three-year period. Contaminated soil was removed along with the UST in 1990 and free-product was observed in the groundwater at the bottom of the excavation. Further investigations indicated that discontinuous permafrost had substantially reduced the ability of the COCs to migrate. The July 1993 CAP selected product recovery followed by MNA with the following RAOs for groundwater - benzene 0.005 mg/L, ethylbenzene 0.7 mg/L, toluene 1.0 mg/L, total xylenes 0.01 mg/L, and naphthalene 0.62 mg/L. No RAOs were selected for soil at the time of the CAP. Product recovery was attempted in 1994 with limited success. Groundwater sampling was conducted annually. Product recovery was captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Picket wells were installed between the source area and the post boundary and were monitored annually until 2003. A CLOSES evaluation recommended the site be sampled every five years. Monitoring of the picket wells was not discontinued in 2010, and they were decommissioned in 2017. LUCs will remain on-site to restrict soil disturbance and groundwater usage until the site reaches UU/UE. ICs are inspected annually and reported in the Annual IC Report. Sampling is reported in the Two-Party Groundwater Monitoring Report. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue to occur indefinitely at a frequency supported by current data which is every five years at this time. LUC/ICs are in place at this source area to prevent soil disturbance and groundwater usage. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1064_FTWW-087_UST, BLDG 2111 & 2112

Env Site ID: FTWW-087

Cleanup Site: UST, BLDG 2111 & 2112

Alias: USTS

Regulatory Driver: RCRA-I

RIP Date: 7/31/1996

RC Date: 6/29/2015

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	2/12/1983	12/1/1990
INV:	12/2/1990	5/30/1992
CAP:	5/31/1992	10/31/1994
DES:	- -	- -
IRA:	6/30/1994	8/31/1994
IMP(C):	6/30/1995	7/31/1996
IMP(O):	7/31/1996	6/29/2015
LTM:	6/30/2015	9/30/2054

Site Narrative: The Former South Point Refueling System built in the 1950s was serviced by Former Buildings 2111/2112 (Tank #s 254-257/332-334). The site (100 acres) is located north of the south taxiway and consisted of four 50,000-gallon USTs, two 25,000-gallon USTs, one 1,000-gallon UST, and two aircraft hydrant refueling systems. The two buildings contained pumping stations that dispensed JP-4 aircraft fuel through a hydrant refueling system along the south taxiway. On Aug. 14, 1963, Building 2112 was destroyed by an explosion and subsequent fire and the system was abandoned in place. Remedial actions were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. In 1996, the leaking USTs along with associated piping were removed. COCs were DRO, GRO, and BTEX in soils and groundwater RAOs for groundwater are benzene 5 ug/L, GRO 2.2 mg/L, and DRO 1.5 mg/L. RAOs for soil are benzene 0.025 mg/kg, GRO 300 mg/kg, and DRO 250 mg/kg. AS/SVE systems were installed and operated during the summer months each year from 1996 to 2006 when the systems electronics were erased due to a power spike and a rebound study began. The systems were decommissioned and removed in 2009 and a soil investigation was conducted that showed 21,000 square feet of source contamination ranging from 10 to 22 feet bgs. An in situ treatability study was conducted between 2009 and 2012 on the benzene plume that remained. The site was monitored for plume stability between 2010 and 2014. In 2015 ADEC granted cleanup complete with ICs based upon stability of the plumes not migrating further from the source and the access restrictions imposed on the flight-line. Groundwater monitoring wells were decommissioned in 2017. Contamination remains in place in groundwater and soil above RAOs. ICs are inspected annually and reported in the Annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE in soil and groundwater, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army.

02871.1068_FTWW-091_DRMO POL SITES

Env Site ID: FTWW-091
Cleanup Site: DRMO POL SITES
Alias: OU2/1235
Regulatory Driver: OTHER
RIP Date: 10/31/1996
RC Date: 9/30/2054
RC Reason: Not assigned
SC Date: 9/30/2054
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: No
Hazardous Ranking Score: 0
RRSE:
MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1981
SI:	1/31/1981	12/31/1981
RI/FS:	6/30/1995	9/30/1995
RD:	- -	- -
IRA:	6/30/1993	10/31/1996
RA(C):	10/31/1995	10/31/1996
RA(O):	10/31/1996	9/30/2054
LTM:	- -	- -

Site Narrative: The DRMO Yard is part of OU2 and located on Badger Road near the Richardson Highway on the eastern boundary of Fort Wainwright. It is made up of multiple sub-areas- DRMO-1, DRMO-2, DRMO-3, DRMO-4, and DRMO-5. Of which, DRMO-1, -2, -3, and -5 have POL contamination handled under this site and regulated by the two-party agreement. The solvent contamination at DRMO-1 and DRMO-4 is discussed under FTWW-047 DRMO Salvage Yard (02871.1024). The DRMO-1 subarea is located in the central and north-central portions of the yard. The COC for this site is petroleum. Remedial actions were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Two treatment systems were installed in 1998 and later shut down for a rebound study before being decommissioned in 2008. POL contamination has persisted in the groundwater above ADEC CULs. A potable water well is located within the DRMO-1 petroleum plume, near the PCE groundwater contamination. Nested wells have been installed upgradient to the potable well and are sampled to monitor the petroleum plume migration caused by the drinking water well. The water from the well is sampled annually in the spring to ensure that the well is not creating a drawdown effect and causing plume migration. The water from this well is treated prior to use. The DRMO-2 subarea includes Building 5010 and part of the east-central area of the DRMO yard. Several USTs were removed from this subarea in the past and the remaining contaminants are DRO and GRO above ADEC CULs. No active remediation is currently occurring, and groundwater monitoring is conducted annually. The DRMO-3 subarea includes Building 5004. It is a two-party site that is in LTM and is tracked under FTWW-061 UST Building 5004 (02871.1038). The DRMO-5 sub area includes the west-central portion of the DRMO Yard and includes the area of the former picket wells that have since been decommissioned. Groundwater monitoring for POLs has been reduced based on MAROS analysis and RPM approval, from semiannual to annual at DRMO-2 and from annual to every five years (prior to the five-year review) at the DRMO-1 (two-party) and DRMO-5 sites. ICs are inspected annually and reported in the Annual IC Report. Groundwater monitoring is reported annually in the Two-Party Groundwater Monitoring Report. Cleanup/Exit Strategy - Monitoring will continue until COCs decrease to below RAGs. There is no

groundwater model data available to predict when COCs will reach the RAGs. Groundwater monitoring is assumed to be required indefinitely. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE in soil and groundwater, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of LUCs. It is assumed this responsibility will be maintained by the Army.

02871.1070_FTWW-093_FARMERS LOOP PERMANFROST ST

Env Site ID: FTWW-093

Cleanup Site: FARMERS LOOP PERMANFROST ST

Alias: FLPS

Regulatory Driver: CERCLA

RIP Date: 9/15/2029

RC Date: 9/15/2029

RC Reason: Not assigned

SC Date: 9/16/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1981	12/31/1981
SI:	1/31/1981	1/2/2023
RI/FS:	1/3/2023	9/15/2029
RD:	- -	- -
IRA:	6/30/1993	6/30/1993
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Farmer's Loop Permafrost Station (FLPS) consists of approximately 135 acres located 2.5 miles northeast of Fairbanks, Alaska. FLPS has been used since 1945 to present by military and civilian agencies to study construction techniques in permafrost and is currently operated by the Cold Regions Research and Engineering Laboratory. The site went through an environmental investigation in 1994 and was divided into five subunits. The subunit for the one-acre FLPS landfill that was used for disposal of construction materials, supplies, and refuse was operated from 1945 to 1964. An investigation conducted at the site in 1994 concluded that investigation or remedial actions were not warranted at the landfill sub area site because contaminant concentrations in soil and groundwater were below regulatory levels, and this area was closed. At the same time an underground tank removal action was performed in sub area 3. No tanks were found during the removal action and ADEC closed the tank sites via letter. Investigations for tank removals and remedial actions were captured in the IRA phase though it did not go through all the necessary requirements and documentation for a CERCLA IRA. The 1994 site investigation in this area showed petroleum contamination in both the soil and groundwater. At this time, the site was declared remedy-in-place (RIP), RC and/or site closeout prematurely in Army Environmental Database - Restoration. The data entry error was then carried over to Headquarters Army Environmental System. The regulator ADEC requested further review and investigation of this source area in 2018. In 2019, groundwater sampling of the wells showed POL and its constituents in the groundwater. A historical records review is currently underway to determine possible sources and decipher past historical uses. This site was moved back from the LTM phase to the RI/FS phase due to regulator request for resampling that determined that the site had not been fully investigated. The site has been moved from the two-party program back to the three-party program in 2020. Although the results of the PSE now conclude that this site is back in the two-party program due to petroleum releases, constituent with UST/aboveground storage tanks (AST), and no comingled contaminants. A historical records review was completed for this site. PSE 2 Report from 2023 recommended for NFA under CERCLA with additional investigation under the two-party program. Cleanup/Exit Strategy- With

the full extent of contamination unknown, it is not possible at this time to postulate what the exit strategy for this site with multiple subareas will be beyond the study phase.

02871.1071_FTWW-094_FORMER QRTMASTER'S FUELING SYS-

Env Site ID: FTWW-094

Cleanup Site: FORMER QRTMASTER'S FUELING SYS-

Alias: OU5/SP-2

Regulatory Driver: CERCLA

RIP Date: 9/30/2001

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	1/31/1987	12/31/1987
SI:	9/30/1987	12/31/1987
RI/FS:	2/28/1995	3/31/1999
RD:	8/31/1997	9/30/2000
IRA:	9/30/1996	7/31/1998
RA(C):	9/30/1997	9/30/2001
RA(O):	9/15/1997	9/30/2054
LTM:	- -	- -

Site Narrative: Former Quartermasters Fueling System (QFS) East and West is part of OU5. The West section of the QFS is between Front St and the Chena River, covers approximately 50 acres, and has three subareas. A fourth subarea east of QFS1 has been designated NFA under CERCLA. Sources of contamination included AST, USTs, abandoned fuel pipelines, and three documented diesel spills of several thousand gallons, including one to Chena River. Most of the tanks were removed in the 1980s and abandoned pipelines were cleaned and purged in 2000 and 2003. In April 1998, approximately 700 cy of contaminated soil and retaining structure were removed. An RI was completed in 1995 and OU5 ROD was signed in 1999. Soil removal actions were captured in the IRA phase though it did not go through all necessary requirements and documentation for a CERCLA IRA. COCs identified in RAGs include residual range organics (RRO) -1,110 ug/L, DRO -1,500 ug/L, GRO -1,300 ug/L, 1,2-DCA -5 ug/L, benzene -5 ug/L, toluene -1,000 ug/L, trichloroethene -5 ug/L, 12-dibromoethane -0.05 ug/L, and bis(2-chloroethyl) ether -0.0092 ug/L. Selected remedy included AS/SVE groundwater monitoring natural attenuation and long-term monitoring. A 2002 draft CLOSES evaluation recommends shutting down systems as RAGs are reached or systems are no longer cost effective. Accordingly, QFS1 AS/VE systems were shut down in 2005 with limited observed contaminant rebound, and the Horizontal Well systems were decommissioned in 2011. The Sparge Curtain AS/SVE system located on the bank of Chena River for QFS2 and 3 was shut down in 2012 for a rebound study and remains in place though no longer viable and needs to be decommissioned. Remaining COCs include DRO and isolated benzene. In 2012, a chemical oxidation compound treatability study with injection was initiated. Monitoring is on-going and will be included with normal groundwater monitoring. Deployment of absorbent boom along riverbanks near the Sparge Curtain system was done as a treatability study to address potential DRO migration to river and monitoring is ongoing. A 2012 evaluation of the boom showed contaminated sediments but detected no sheen; no contamination in the surface water. Boom is deployed annually. Semiannual groundwater sampling for MNA continues in QFS2 and QFS3 annual sampling in QFS 1. Treatability for the oleophilic bio-barrier installed in 2018-2019 currently being evaluated for integrity w/river boom.

East QFS area covers approximately 40 acres between Front St and Gaffney Rd. During a UST release investigation, GRO and DRO were encountered in the groundwater. Sampling in 1989 and 1992 showed petroleum and solvent contamination in soil and groundwater. In 1994 a comprehensive evaluation of the QFS was conducted and groundwater data identified several small plumes (fuels and solvents) and soil data confirmed solvent contamination which was believed to have originated from surface disposal and undocumented spills. RI/FS was completed in 1996 and ROD in 1999. Chosen alternatives for remedial action at the QFS included operation of the AS/SVE groundwater monitoring and monitored natural attenuation. The AS/SVE system installed at East Building 1060 reduced the “hot spot” below action levels and was relocated to the west side of Building 1060. An electric oxidizer was installed at this site for off-gas vapor treatment. Indoor air sampling in Building 1060 showed no intrusion of contaminant vapors; oxidizer was shut off in FY04 and decommissioned in 2009. Groundwater monitoring was conducted along four flow paths in the QFS (Flow paths A, B, C and D) and at the Apple St Hot Spot. Sampling was last conducted at all sites in 2010. Based on 2010 and 2011 sampling results, the RPMs approved discontinuing sampling along Flow paths A, B and C. Sampling 7 wells along Flow path D last conducted in 2019 showed increasing solvent levels instituting a return to annual sampling. A PSE for vapor intrusion (VI) for Building 1060 is currently in review and supports the need for an RI at 1060. Evaluation of source areas needs to be conducted in conjunction with an optimization study on achieving RAGs in the desired timeline. PFAS sampling was conducted in August 2020; PFOS and PFOA were detected in groundwater above screening levels outlined in Sept 2021 OSD memo. RI associated with PFAS is carried by FTWW-PFAS_PFAS (02781.1131). Cleanup/Exit Strategy- Groundwater monitoring will be conducted in the RA(O) phase until RAGs have been met. Annual groundwater monitoring is reported in the OU5 monitoring report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Monitoring will continue for 30 yrs. Chena River Boom will be deployed each spring and removed each fall and ICs will continue at the site in the RA(O) phase for 30 years. 2020 groundwater sample results indicated pesticide contamination in groundwater exceeding regional screening levels (RSL) to include aldrin-BHC, heptachlor epoxide, and 44-DDD and will have require annual investigation while the RA(O) optimization occurs for 02871.1019 FTWW-026. Because the future land use will remain industrial and hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue indefinitely.

02871.1073_FTWW-096_BIRCH HILL ABOVE GROUND STORAGE

Env Site ID: FTWW-096

Cleanup Site: BIRCH HILL ABOVE GROUND STORAGE

Alias: OU5/1A

Regulatory Driver: CERCLA

RIP Date: 10/1/1999

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	9/30/1981	9/30/1981
SI:	9/30/1981	9/30/1991
RI/FS:	10/31/1991	3/31/1999
RD:	- -	- -
IRA:	- -	- -
RA(C):	3/31/1999	9/30/1999
RA(O):	10/1/1999	9/30/2054
LTM:	- -	- -

Site Narrative: The Birch Hill AST Tank Farm included a total of 16 large volume aboveground fuel storage tanks in an area of more than 79 acres. Leakage from the tanks and spills during filling combined with lead contamination from pipe dope used to install bolts during the construction and repair of the tank walls resulted in lead and POL-contaminated soils and groundwater. The ASTs were taken out of service in the mid-1980s but were not removed or demolished. This site was originally investigated in OU3 and included remedial area 1A (soils north of Building 1182) and 1B (groundwater and soils south of Building 1182). This site, remedial area 1A, was transferred from OU3 to OU5, while remedial area 1B is handled under OU3 as FTWW-055 Fairbanks Fuel Terminal (02871.1032). The risk assessment for the Birch Hill AST Tank Farm in 1994 determined that lead contamination posed a hazard to children and the area was fenced to keep people out. In 1995, an FS developed RAs goals of 1,000 mg/kg for lead and evaluated cleanup alternatives for OU3. Cleanup levels for soils were only for POLs and lead. The RI had identified chlorinated solvents in the soil which had not migrated to the groundwater. The OU5 ROD (1999) selected remedy at remedial area 1A to be LUC/ICs which include signage, fencing, dig permit requirements, zoning restrictions (surface contamination) and inclusion in the postmaster plan and geographic information system databases. Monthly fence inspections are conducted to ensure the integrity of the fencing is maintained, as one of the IC elements. In 2015 the ASTs were decommissioned resulting in the triggering of the selected remedy in the OU5 ROD. The selected remedy required remediation for unspecified other contaminants within soil and was deferred until tank removal, as this would result in a change in land use and land use assumption of an active tank farm, thereby changing the land use from industrial to residential. In 2018, site delineation occurred for lead and POLs, for future excavation of contaminated soils and preparation for follow-on remedial actions. An internal Army decision document for lead removal was finalized in 2020. A rapid optimization study is in-progress to evaluate MNA of COCs, revaluate risk in light of historical VOC values compared to current USEPA RSLs, proposed USEPA reduced lead soil cleanup levels from 400 mg/kg to 200 mg/kg, and recommend remedial actions needed at this time. Removal of the lead contamination and any other CERCLA COCs

will be conducted under the three-party program. At completion of the CERLCA COC removal it is anticipated that the site would be transferred out of the OU and to the two-party program. POL contaminated soil would be remediated under the two-party program. Currently, the ICs are inspected annually and reported in the Annual IC Report. Cleanup/Exit Strategy- Optimization of the operation and maintenance activities would be accomplished by investigating soils further evaluating risk establishing cleanup goals and remedial actions. Contaminated lead soil removal is anticipated in the future to remove the fencing LUC/IC requirement. Further delineation and removal action for POL contaminated soils is also anticipated for future work. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1074_FTWW-097_UST, BLD 1168

Env Site ID: FTWW-097

Cleanup Site: UST, BLD 1168

Alias: UST/3A/NFA

Regulatory Driver: RCRA-I

RIP Date: 2/28/2001

RC Date: 6/15/2009

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	9/30/1994	9/30/1994
INV:	9/30/1994	9/30/1994
CAP:	8/31/1995	8/31/1995
DES:	5/31/1995	8/31/1995
IRA:	9/30/1994	9/30/1994
IMP(C):	9/30/1995	2/28/2001
IMP(O):	10/31/1995	6/15/2009
LTM:	7/15/2009	9/30/2054

Site Narrative: One UST (No. 213) was located near former Building 1168, a vehicle storage facility between motor pool near a dry well which was under OU2 FTWW-072 Oil Water Separator at Building 1168 (02871.1049). UST 213, along with the associated piping, was removed in 1994. Tank and pipe removal was captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. DRO was detected in the groundwater. In 1995, an SVE/AS system was installed as a treatment system to address groundwater POL constituents at this source area. In 2001, contamination levels decreased to levels where the system could be turned off and it was decommissioned in 2003. Monitoring indicated consecutive events where levels were below cleanup action requirements. No further monitoring is required at this site; however, LUCs/ICs remain in place. Based on a June 2009 letter from ADEC, this site is closed with ICs. Currently, the ICs are inspected annually and reported in the Annual IC Report Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1076_FTWW-099_UST, BLD 3564

Env Site ID: FTWW-099

Cleanup Site: UST, BLD 3564

Alias: 2PY/UST

Regulatory Driver: RCRA-I

RIP Date: 6/30/1996

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	8/31/1994	8/31/1994
INV:	8/31/1994	8/31/1994
CAP:	8/31/1995	1/31/1996
DES:	- -	- -
IRA:	8/31/1994	8/31/1994
IMP(C):	3/31/1996	6/30/1996
IMP(O):	6/30/1996	9/30/2054
LTM:	- -	- -

Site Narrative: Two 25,000-gallon USTs were removed (1994) and replaced with one 10,000-gallon UST at former Building 3564. Tank removal was captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. This former building (demolished in 1999) was the “Black-Start” stand-by generator plant for the Central Heating and Power Plant. The former facility was located up gradient of the post's current main drinking water supply wells located in Building 3559 and fire suppression well in Building 3563. The former facility was also immediately downgradient of the Water Treatment Plant Building, 3565 which also houses the former main drinking water production well inside that is still used to produce drinking water for limited periods of time. The extent of petroleum contamination in the soil and groundwater was defined in the Site Assessment Report and identified as DRO, GRO, RRO and benzene above ADEC CULs. RAGs for said COC are RRO 1,100 ug/L, DRO 1,500 ug/L, GRO 2,200 ug/L, and benzene 4.6 ug/L. An AS/SVE treatment system was installed in 1996 and attenuation measured. In 2000, the AS/SVE system was deemed successful in decreasing GRO and benzene at the source area, and it was determined that DRO and RRO levels had reached the point where system operation was no longer cost-effective. The system was shut down and decommissioned in 2001. Annual monitoring will continue until the RPM agree that the state of Alaska Drinking Water Quality Standards have been met for at least two consecutive sampling events and that the source area will not adversely impact the Post Drinking Water system. The frequency and parameters of monitoring will be evaluated on an annual basis. The site is currently in the RA(O) phase and MNA will continue every year for the foreseeable future. This includes annual groundwater monitoring in the two-party sites monitoring report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Results of sampling events indicate that monitoring is still required. Due to the plume’s proximity to the Water Treatment Plant, Main Drinking Water Production Wells and two Emergency Stand-by water wells, MNA will be conducted at seven monitoring wells until RPMs agree that the state of Alaska Drinking Water Quality Standards have been met for at least two consecutive sampling events and that the source area will not adversely

impact the post drinking water system. Groundwater monitoring is expected to continue indefinitely. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1077_FTWW-100_UST, BLD 2250

Env Site ID: FTWW-100

Cleanup Site: UST, BLD 2250

Alias: 2PY/UST

Regulatory Driver: RCRA-I

RIP Date: 9/30/2009

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	1/31/1981	1/31/1981
INV:	3/31/1992	2/28/1993
CAP:	9/30/1995	9/30/1995
DES:	- -	- -
IRA:	8/31/1994	8/31/1994
IMP(C):	9/30/1995	9/30/2009
IMP(O):	9/30/1995	9/30/2054
LTM:	- -	- -

Site Narrative: FTWW-100 is the former pesticide shed at the golf course on Fort Wainwright. The site was originally investigated for herbicides and pesticides under OU1, FTWW-076 (02871.1053) and an NFA decision document was signed in the OU1 ROD for these COCs. An UST associated with Building 2250 was removed in the summer 1994. Tank removal was captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. Contamination identified DRO in soil and groundwater above ADEC cleanup levels. An AS/SVE system was installed in September 1995 to treat contamination believed to be associated with the UST. The AS/SVE system was turned off in May 2004. A subsequent Rapid Optical Screening Tool investigation showed that remaining subsurface contamination was confined to a limited area. The plume appeared to be stable and not increasing during this investigation. A 2004 CLOSES evaluation recommended the site be monitored every five years for natural attenuation. In 2019, ADEC requested increased sampling frequency to an annual occurrence due to an increasing plume concentration and for further delineation of the groundwater plume downgradient for MNA optimization. A new downgradient well was installed in 2021 to meet ADEC's request. This includes annual groundwater monitoring in the two-party sites monitoring report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- ICs are in place. They include restricting land and groundwater use, require all soil disturbing activities greater than six inches below the existing grade (surface) obtain a dig permit, and an Army, USEPA, and ADEC approved contaminated site work plan. Residual contamination will be monitored as agreed to with the ADEC. MNA will continue indefinitely until ADEC cleanup levels have been reached. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1078_FTWW-101_NEELY ROAD POL POINT

Env Site ID: FTWW-101

Cleanup Site: NEELY ROAD POL POINT

Alias: OU5/2PY

Regulatory Driver: CERCLA

RIP Date: 10/31/2005

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	6/30/2001	8/31/2001
SI:	- -	- -
RI/FS:	9/30/2001	9/30/2004
RD:	- -	- -
IRA:	- -	- -
RA(C):	6/30/2005	9/30/2005
RA(O):	10/31/2005	9/30/2054
LTM:	- -	- -

Site Narrative: Building 3570 is the former Post Exchange gas station at the corner of Neely Road and 11th Street. The station operated between 1955 and 1981. Two USTs (10,000 gallon and 550 gallon) were removed in 1987. The station was then used as the Auto Skill Center before being vacated in the late-1990s. In May 2001, during foundation excavation, approximately 15 cy of contaminated soil was removed and stockpiled on site and later removed for off-site thermal treatment. In 2002, a limited RI was conducted and contamination by PCE, GRO, DRO and benzene in excess of ADEC action levels was confirmed. A Rapid Optical Scanning Tool investigation was conducted in 2003 to determine the extent of the contaminant plume. December 2004 CAP set the RAOs are to eliminate non-aqueous phase liquids (NAPL) from the water table, restore groundwater federal and state drinking water quality, and prevent leaching of contaminates from soil to groundwater. In 2005, an AS/SVE system was installed. The air sparge portion of the system was initially operated only briefly because of concerns about vapor intrusion expressed by workers in a job trailer near the site. The SVE system was run continually starting in 2006. The job trailer was removed from the site during the summer of 2009, and operation of the AS system was resumed at that time. A catalytic oxidizer was initially used in conjunction with the SVE system, but it was removed from operation in 2010. A follow-up Ultra-Violet Optical Screening Tool investigation was performed in 2010. Based on the results of that investigation, and historical data from the site, several enhancements were made to optimize the operation of the treatment system. The SVE portion of the system was subsequently turned off in November 2011 due to diminishing contaminant removal, but the AS system was still being run year-round. The SVE/AS system was shut down in December 2013 to begin a rebound study. The rebound study is ongoing and if COCs (PCE, GRO, and DRO) do not rebound, the Army will recommend decommissioning the system. This includes annual groundwater monitoring in the two-party sites monitoring report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy - During the RA(O) phase groundwater sampling will be conducted annually at Neely Road (Former Building 3750). Monitoring will continue until contaminant concentrations decrease below

cleanup levels through natural attenuation and the source area allows for unrestricted use/unlimited exposure. Therefore, annual groundwater monitoring will continue indefinitely along with annual LUC/IC inspections occurring indefinitely.

02871.1088_FTWW-102_FORMER COMMUNICATION SITE

Env Site ID: FTWW-102

Cleanup Site: FORMER COMMUNICATION SITE

Alias: OU6/TAKU

Regulatory Driver: CERCLA

RIP Date: 6/30/2015

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: High

MRSPP: N/A

Phase	Start	End
PA:	3/31/2005	8/31/2005
SI:	- -	- -
RI/FS:	9/30/2005	1/15/2014
RD:	2/15/2014	4/15/2015
IRA:	6/30/2005	9/30/2009
RA(C):	4/30/2011	6/30/2015
RA(O):	5/31/2011	9/30/2054
LTM:	- -	- -

Site Narrative: This site comprises approximately 54 acres and was discovered in 2005 during the initial phase of military housing construction. Review of extensive historical aerial photo coverage of this site has determined that the site had a history of mixed uses including communication site with antenna arrays, barracks, administrative buildings, salvage and reclamation activities, debris disposal, potential ammunition storage and firefighting training activities. The PSE 1 conducted in 2005/2006 reviewed readily available historical information, environmental consultant reports generated during construction/excavation, and identified activities performed at the site and was completed in late 2006. Concurrent with the PSE 1, a PSE 2 was initiated to begin intrusive investigations in the form of soil and groundwater sampling. The results of these PSEs provided the basis for the RI management plan and work plan and identified the potential COCs as heavy metals, PCBs, dioxins, furans, chlorinated benzenes, chlorinated phenols, MEC, solvents, POL, and polypropylene glycol (a hazardous substance under Alaska Administrative Code). The RAGs for the COCs in soil are 1,2,3-trichloropropane 0.17 mg/kg, DRO 10,250 mg/kg, aluminum 77,000 mg/kg, copper 4,160 mg/kg, and manganese 1,800 mg/kg. RAGs for COCs in groundwater are 1,2,3-TCP 0.12 ug/L, DRO 1,500 ug/L, RRO 1,100 ug/L, and TCE 5 ug/L. High levels of PCB contamination were detected in 2005 and a time critical removal action under The Toxic Substances Control Act was initiated in July to dispose of these high levels of PCB contaminated soil that was exhumed during construction activities. Additional delineation was conducted in 2006 with final removal and disposal of all know PCB contaminated soil under CERCLA in 2008. The RI began in 2007 and consisted of extensive groundwater, soil, and soil-gas sampling. In order to conduct a more thorough and cost-effective investigation to determine the nature and extent of contamination RPMs from the Army, USEPA, and the ADEC agreed to an IRA of subsurface debris and the contaminated soils in conjunction with the RI. The RI, which included a human health and ecological risk assessment, and subsequent FS were conducted through 2009 and finalized in December 2010. Errata sheets were added in 2011 to provide clarification for the USEPA Regional Review Team. Construction support and groundwater monitoring were conducted at the site from 2009 through 2012 while the proposed plan (PP) and ROD

were being developed. The PP was submitted for public comment in December 2012. The public comment period was conducted from Jan. 14, 2013, through Feb. 14, 2013. A draft RD/remedial action plan was given to the Army, USEPA and ADEC in April 2014. The final ROD for the site was signed by the USEPA on Jan. 29, 2014. The ROD selected MNA and LUCs/ICs as the remedy until all parties agree the site can be used for UU/UE. Groundwater sampling has been conducted biannually since 2005. The number of wells being sampled has changed from year to year based on investigation results and at the direction of the Army in cooperation with the USEPA and ADEC. The final sub-slab soil-gas monitoring/VI study was completed in FY18, however privatized housing continues to conduct annual monitoring. PFAS sampling was conducted in August 2020 as part of the nationwide PFAS SI effort. PFOS and PFOA were detected in groundwater above the screening levels outlined in the July 2022 OSD Memo. The RI associated with PFAS is carried by FTWW-PFAS_PFAS (02871.1131). This includes annual groundwater monitoring in the OU6 monitoring report. ICs are inspected annually and reported in both the OU6 Report and more specifically in the Annual IC Report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue until COCs decrease below RAGs. Based on the current trend of stable contaminant concentrations, this source area will likely require groundwater monitoring for the foreseeable future. Optimization of soil for NAPL and an update cleanup levels for 1,2,3-TCP and copper in soil. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1096_CC-FTWW-03_Vet Clinic/Boat Shop (Bldgs 2

Env Site ID: CC-FTWW-03

Cleanup Site: Vet Clinic/Boat Shop (Bldgs 2

Alias: 2PY/D-14

Regulatory Driver: RCRA-I

RIP Date: 12/31/2009

RC Date: 5/21/2014

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	10/31/1995	9/30/1996
INV:	10/31/1995	9/30/1996
CAP:	- -	- -
DES:	- -	- -
IRA:	- -	- -
IMP(C):	5/31/1996	12/31/2009
IMP(O):	9/30/1998	5/21/2014
LTM:	5/21/2014	9/30/2054

Site Narrative: The site is located between former Building 2062 and Building 2063. Former Building 2060 (UST 242) was just to the north of former Buildings 2062 (UST 244) and Building 2063 (UST 245). UST 242 was removed in 1995. The preliminary assessment (PA) conducted during tank removal indicated extensive soil and groundwater contamination at the site. Limited soil removal, 350 cy, took place during the PA. An in-depth SI conducted in 1996 indicated petroleum contamination in soil and groundwater at the site. The 2011 and 2013 monitoring events indicate POL-contaminant levels in the groundwater remain above state of Alaska water quality levels (DRO at 1.5 ug/L in groundwater and 200 mg/kg in soil), and the site could not be considered for closure; however, analytical results indicated that the boundary is defined and appears stable. The site was monitored on a biennial basis for 10 years then on a five-year basis until projected site closure. LUC/ICs are in place at the source area to restrict groundwater use and excavation and deed restrictions were placed on the property. Based on a May 2014 letter from ADEC the site is cleanup complete with ICs. Groundwater monitoring wells were decommissioned in 2017. Currently, the ICs are inspected annually and reported in the Annual IC Report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1097_CC-FTRS-04_Seward Recreation Camp UST/AS

Env Site ID: CC-FTRS-04

Cleanup Site: Seward Recreation Camp UST/AS

Alias: FRA9300001

Regulatory Driver: RCRA-I

RIP Date: 12/31/1999

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 50

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	4/30/1992	9/30/1992
INV:	10/31/1992	3/31/1995
CAP:	3/31/1995	4/30/1995
DES:	- -	- -
IRA:	4/30/1995	10/31/1998
IMP(C):	10/31/1999	11/30/1999
IMP(O):	12/31/1999	9/30/2054
LTM:	- -	- -

Site Narrative: The Seward Recreation Camp in Seward, Alaska is a recreational facility transferred in 2009 to FTWW from Fort Richardson and operated by the installation's Morale, Welfare, and Recreation Department. The Seward Recreation Camp was formerly Fort Raymond, an Army Post established during World War II to provide protection for the Port of Seward and Resurrection Bay. The Seward Recreation Camp occupies about 12 acres and provides lodging since 1995 The Seward Recreation Camp has been in operation since the 1960s and underwent significant refurbishing in 1995-1996. Contaminated soil and groundwater at the site were caused by a broken UST supply line. The USTs were removed in 1995 and replaced with ASTs. Tank removals were captured in the IRA phase, though it did not go through all the necessary requirements and documentation for a CERCLA IRA. The state of Alaska and the Army have agreed to natural attenuation and long-term groundwater monitoring. The city of Seward has drinking water supply wells located immediately downgradient from the site. Monitoring is required to ensure that the city's drinking water supply is not impacted. The Army plans to continue monitoring the plume, verifying the plume is not expanding. The plume has not shown any signs of movement. Current conditions- the site is currently in the implementation (operations) phase with groundwater monitoring being conducted every two years on six monitoring wells. Recent results indicate that the remaining groundwater contamination is stable and is not migrating. Well replacement was scheduled for the 2022 sampling event. Currently Seward Rec Camp's sites are reported on annually in a report specific to Seward Rec Camp and it includes groundwater monitoring and IC inspections activities. Cleanup/Exit Strategy- During the RA(O) phase, groundwater monitoring will continue until COCs decrease below RAGs. Based on the current trend of stable contaminant concentrations, this source area will likely require groundwater monitoring for the foreseeable future. Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1098_CC-FTWW-02_Forward Air Refueling Point (FRAP)

Env Site ID: CC-FTWW-02

Cleanup Site: Forward Air Refueling Point (FRAP)

Alias: FWA9100026

Regulatory Driver: RCRA-I

RIP Date: 10/31/2010

RC Date: 12/12/2013

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	10/31/1996	9/30/1997
INV:	10/31/2008	9/30/2009
CAP:	- -	- -
DES:	- -	- -
IRA:	- -	- -
IMP(C):	10/31/2009	10/31/2010
IMP(O):	10/31/2010	12/12/2013
LTM:	12/12/2013	9/30/2054

Site Narrative: Former UST 924, two ASTs and oil water separators were connected to a washrack/loading rack at the site at Building 2083. The UST was removed in 1996 and it was found that leaks had occurred. The former refueling point was taken off-line at that time, and the ASTs installed. The Forward Air Refueling Point (FARP) was upgraded to a self-contained storage and distribution facility and will remain in use for the foreseeable future. The temporary ASTs and containment dike were demolished. The FARP was built as a temporary answer for a refueling point. A limited UST PA completed in May 1997 indicated contaminated groundwater and soils at this site. The FARP system has been upgraded to a 40,000-gallon, self-contained storage, and distribution facility. The FARP will remain in service for the foreseeable future. It is likely the investigation start may also be impacted by new construction in adjoining areas. An SI was performed in 2009 to delineate the extent of contamination. LUCs are in place at this site. An investigation in 2009/2010 determined the extent of the contamination at the site. The results of the investigation determined DRO in one well exceeded the ADEC cleanup level of 1.5 ug/L. Soil samples were determined to have DRO and TCE exceedances above cleanup levels of 200 mg/kg and 0.02 mg/kg, respectively. Based on a 2014 US Army Environmental Command Program Review, it was discovered that ADEC had approved the site for closure with ICs restricting soil disturbing activities, inclusion in the master planning geographic information system layer, no groundwater use, and a requirement for any work at this source area to have ADEC review in December 2013. Groundwater monitoring wells were decommissioned in 2017. Currently, the ICs are inspected annually and reported in the Annual IC Report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- Because hazardous substances, pollutants, or contaminants will remain at the site indefinitely at concentrations exceeding levels that allow for UU/UE, the Army is responsible for implementation, maintenance, periodic reporting, and enforcement of ICs. It is assumed this responsibility will be maintained by the Army indefinitely.

02871.1100_CC-FTWW-103_AVIATION TASK FORCE

Env Site ID: CC-FTWW-103

Cleanup Site: AVIATION TASK FORCE

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/30/2024

RC Date: 9/30/2024

RC Reason: Not assigned

SC Date: 9/30/2024

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	8/15/2008	9/15/2008
SI:	7/15/2009	9/30/2024
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The Aviation Task Force (ATF) is a large area that extends approximately 1,900 yards from the east side of Hangar 3, Building 3002, to the west side of Building 2076, and from the northern shoulder of Montgomery Road to the southern edge of the former South Point Refueling System taxiway. Historical spills and releases have occurred in this area as a result of normal activities (aircraft parking maintenance, refueling, re-arming, cargo storage and loading activities, hazardous materials/waste storage, and other related activities) since 1940. Due to the sporadic and irregular patterns of contamination encountered, the contaminated areas are assumed to have been caused by accidental spillage during normal activities. Aerial spraying of pesticides throughout the cantonment area was a routine occurrence. It is possible that some of the pesticide contamination encountered in this area was a result of these activities. There were originally four specific source areas within this parcel of land-Hangar 3 Utilidor Expansion, Building 3004, Former Electronics Maintenance Facility Building 2104, and Building 2077 Parking Lot. Hangar 3 Utilidor Expansion and Building 2077 Parking Lot were pulled into their own sites, FTWW-129 ATF Form Hang 3 Utilidor Expan (02871.1127) and FTWW-126 ATF – Building 2077 Parking Lot (02871.1124), respectively, and are not discussed under this site any further. At Building 3004, pentachlorophenol (PCP) was detected during a utility construction effort in 2011, but all contamination was removed during the environmental sampling and removal efforts. The PCP was associated with the area of a power pole removal action and no known contamination remains at Building 3004. In 2014, ADEC and USEPA concurred with the PSE multisite report that recommended NFA for Building 2104 and Building 3004. However, Building 3004 is First Station #1 possibly has PFAS contamination so a PFAS PA/SI is contracted. Building 2104 was originally an electronics maintenance facility with a record of storing PCB transformers at the location. A PSE finalized in August 2017 did not detect PCBs and only detected metals that were believed to be naturally occurring. In August 2020, this source area was sampled PFAS as part of the nationwide PFAS SI effort. PFOS and, PFOA and/or PFBS were detected in groundwater above the screening levels outlined in the July 2022 OSD Memo. Results indicate that a PFAS source area is present. An RI will be conducted for PFAS under 02871.1131.

Cleanup/Exit Strategy- The results of the PSE indicate to the Army that no further remedial action is required at this site as contamination is limited to soil surface below actionable risks. An MFR will document summary of history and closure status.

02871.1101_CC-FTWW-104_SPILL AREA SOUTH OF BUILDING 3485

Env Site ID: CC-FTWW-104

Cleanup Site: SPILL AREA SOUTH OF BUILDING 3485

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/30/2029

RC Date: 9/30/2029

RC Reason: Not assigned

SC Date: 9/30/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	6/15/2009	6/15/2009
SI:	7/15/2009	8/15/2013
RI/FS:	8/16/2013	9/30/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Building 3485 is located in the southern portion of the Fort Wainwright cantonment area, on the northeast corner at the intersection of Chippewa Avenue and Luzon Avenue. This site was part of the area used for refueling Army equipment and machines during the 1940s and 1950s; diesel and gasoline USTs were placed on site during that period. It is adjacent to a refueling station to the east battle command training center to the north, and Building 3479, another motor pool to the west. In 2009, during construction activities, a previously unknown and abandoned quartermaster refueling point complete with concrete pump island, three USTs and related piping was found approximately 130 feet east of Motor Pool Building 3485. In July of 2009, three USTs (one 3,000-gallon diesel tank and two joined 1,300-gallon gasoline tanks) their contents, and associated pipeline were removed from the site. Approximately 800 cy of POL and VOC contaminated soil was excavated. The excavation was advanced to a depth of 12 feet, which depth groundwater was encountered. Confirmation soil and groundwater samples were collected from the excavation. Ten soil samples exceeded cleanup criteria for GRO, DRO, and VOCs, (including benzene and benzene ethylene dibromide), while 10 groundwater grab samples also exceeded groundwater cleanup criteria for DRO and VOCs. In order to further delineate the contamination, 15 direct push wells were installed and 15 screen point - 16 groundwater grab samples were collected. Two soil samples exceeded cleanup criteria for benzene. Ten of the groundwater grab samples also exceeded groundwater cleanup criteria for DRO and multiple VOCs. The areal extent of contamination in either the soil or groundwater has not been fully delineated. Following removal of the USTs and the follow-up investigation the construction contractor encountered an eight-foot by eight-foot underground wooden vault with a wood utility duct (a buried utility box designed to protect utility lines that cross high traffic areas) located approximately 200 feet southeast of the building. The vault and associated piping were removed, along with 120 cy of POL contaminated soil. The excavation reached a depth of 11 feet, which was the groundwater interface. Confirmation soil samples collected from the excavation detected POL contamination above the cleanup criteria. The site is currently under four feet of clean non-frost susceptible fill material and a 12-inch reinforced concrete parking facility. Field work to

delineate contamination boundaries was completed under an RI contract in 2014. The investigation delineated the extent of contamination in the soil and groundwater; however, due to state cleanup levels and/or MCLs being implemented too early the risk assessment, the risk assessment was found to be deficient by the USEPA, and they would not accept the work nor allow the document to be finalized in 2020. It was determined at the February 2020 FFA meeting by the RPMs that this site would be NFA under CERCLA. Cleanup/Exit Strategy- The results of the RI indicated that only POL contamination was present, and PP/DD is being prepared to close in three-party and transfer to two-party for further investigation. It is unclear at this time what the conclusions of the investigations will be and/or what the corrective action necessary for remediation will entail. With this uncertainty and the full extent of contamination unknown, it is not possible at this time to postulate what the exit strategy for this site with multiple subareas will be beyond the RI/FS phase.

02871.1102_CC-FTWW-105_336B BARRACKS

Env Site ID: CC-FTWW-105

Cleanup Site: 336B BARRACKS

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2029

RC Date: 9/15/2029

RC Reason: Not assigned

SC Date: 9/16/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	6/15/2010	6/15/2010
SI:	7/15/2010	8/15/2013
RI/FS:	8/15/2013	9/15/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The 336B Barracks site is located on the corner of Montgomery Road and Santiago Avenue. Historical records and aerial photographs taken between 1956 and 1993 indicate the 336B Barracks site was previously the site of five ammunition bunkers. After the bunkers were decommissioned, the area was used as a maneuver/training area for the military. In April 2009, a pre-construction site investigation identified localized soil contamination with VOC, SVOC, and explosives constituents in the northwest corner of the lot, collocated with a former bunker site. In 2010, four AOCs were investigated. Approximately 500 pounds of scrap metal were excavated and removed. Approximately 70 cy of POL contaminated soil was also removed from the center of the site in response to contamination identified during construction activities. A geophysical investigation on a large area to the northwest of the new barracks found four .50-caliber ball rounds of small arms ammunition that were determined to be safe and disposed of properly. Other anomalies in the area were scrap metal. A subsequent geo-probe investigation in this area indicated DRO and SVOC contamination remained in the soil above ADEC cleanup levels. A limited groundwater investigation did not find any contamination exceeding cleanup levels in 2011. Further investigation occurred in 2014 for the site investigation. Results of the SI provided enough information to move this site to the RI phase. It was determined at the February 2020 FFA meeting by the RPMs that this site would require an expanded RI and risk assessment under CERCLA. Cleanup/Exit Strategy- The results of the RI will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site.

02871.1103_CC-FTWW-106_PIPELINE BREAKS

Env Site ID: CC-FTWW-106

Cleanup Site: PIPELINE BREAKS

Alias: NOU

Regulatory Driver: OTHER

RIP Date: 9/15/2029

RC Date: 9/15/2029

RC Reason: Not assigned

SC Date: 9/16/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	8/15/1999	9/15/1999
SI:	5/15/2000	3/15/2015
RI/FS:	3/15/2015	9/15/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Diesel fuel and leaded gasoline contamination were found in the soil during the investigation of this historical multi-fuel pipeline (CANOL, DFO, Haines-Fairbanks Multi-Fuel Pipeline, FEP, and others). It is presumed that the contamination came from historical fuel leaks and spills. The CANOL pipeline was a six-inch pipeline constructed in the 1940s to connect fuel facilities in Whitehorse, Canada to Fairbanks, Alaska. The pipeline was primarily used to transport diesel fuel and leaded gasoline (MOGAS). The line was replaced as the primary fuel pipeline to Fort Wainwright in the 1950s with the construction of the eight-inch Haines-Fairbanks Multi-Fuel Pipeline that operated until 1972, a portion of this line from the Mapco Refinery in North Pole stayed in operation to Eielson and Fort Wainwright until 1992 (FEP). A third pipeline, labeled in historical drawings as the DFO, was also located within the close proximity to the CANOL Line. In 2010, 2011, and 2014, significant portions of the CANOL and Haines-Fairbanks Multi-Fuel Pipeline were either removed or abandoned in place by cleaning out the pipe and filling it with grout. During these activities, several locations along the pipelines were found where fuel had either leaked or been spilled in the past (CCFTWW-04). The results of the CCFTWW-04 report and further pipeline mapping projects were used as the basis for further investigation on potentially contaminated sites. Sites that are currently going into SI phase- Pump station (west of DRMO), two sites for four-foot pipeline between Neely and Oak. Sites currently moving into site characterization (RI phase) are DFO Pipeline- Neely Road, South of Building 3728, Oak Avenue, and Meridian and Montgomery intersection; CANOL Pipeline- Gaffney Road west of airfield, Meridian and Gaffney Road, Richardson Highway MP 358.5, Richardson Highway MP 357.5, and southwest of FAA radar facility. Contamination consists of DRO, GRO, and BTEX in soil and groundwater at these sites. Cleanup/Exit Strategy- The results site characterization will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be and or what the corrective action necessary for remediation will entail. With this uncertainty and the full extent of contamination unknown, it is not possible at this time to postulate what the exit strategy for this group of sites will be.

02871.1104_CC-FTWW-109_BUILDING 1054

Env Site ID: CC-FTWW-109
Cleanup Site: BUILDING 1054
Alias: NOU
Regulatory Driver: CERCLA
RIP Date: 9/15/2029
RC Date: 9/15/2029
RC Reason: Not assigned
SC Date: 9/16/2029
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: No
Hazardous Ranking Score: 0
RRSE: Low
MRSPP: N/A

Phase	Start	End
PA:	6/15/2008	6/15/2011
SI:	7/15/2011	9/15/2014
RI/FS:	9/15/2014	9/15/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Building 1054 is located at 1054 Marks Road, 650 feet southeast of the Chena River. 1054 was historically used as a motor vehicle repair shop prior to the 1970s. It is currently used as the fire station serving the northern portion of the Post. NFA was originally granted for soils at this site and groundwater contamination was referred to OU5. However, POL-contaminated soils were detected during the demolition of the north section of Building 1054. An environmental site assessment/release investigation conducted in 2009 further identified contamination and 35 cy of material was excavated from the site. Confirmation samples indicated that contaminated soils remain in place on the west sidewall, north sidewall, and base of the main excavation. Construction efforts, including additional excavation and sampling activities, were conducted in 2010. Approximately 490 cy of POL-contaminated soil and 10 cy of lead-contaminated soil was removed. As a result of the 2015 RI, DRO soil contamination was detected in analytical samples above the project screening level south and west of the 2010 excavation. Concentrations of DRO to the north and east of the 2010 excavation were below the project screening level. An estimated 250 cy of contaminated soil remains onsite at approximately zero to two feet bgs. Groundwater analytical results were below project screening levels indicating that contamination is not migrating to groundwater. VI was determined not to be a concern at the site. The risk assessment identified unacceptable cancer risk and unacceptable non-cancer risk to human health primarily associated with DRO in soil and groundwater and naphthalene in groundwater. However, the ADEC migration to groundwater cleanup levels and/or MCLs were incorrectly applied during the risk assessment as outlined in a December 2019 deficiency letter from the USEPA, leading to a determination of there being unacceptable risk and no COCs. No ecological risk was identified in the risk assessment. Based on the RI/risk assessment, the limited volume of contaminated soil remaining at the site is covered by an asphalt parking lot and is not migrating. It was determined at the February 2020 FFA meeting by the RPMs that this site would require an expanded RI and risk assessment under CERCLA. Cleanup/Exit Strategy- USEPA has stated that the draft RI would not be approved to be finalized. Therefore, a portion of the RI level field work must be repeated at this site to redefine the risk for this

site. The results of the expanded RI will be evaluated to determine the final cleanup/exit strategy. It is unclear at this time what the conclusions of the revised investigation/risk assessment will be and/or what the corrective action necessary for remediation, if any, will entail. With this uncertainty, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1105_CC-FTWW-108_BUILDING 3498

Env Site ID: CC-FTWW-108
Cleanup Site: BUILDING 3498
Alias: DRAINSWALE
Regulatory Driver: CERCLA
RIP Date: 9/30/2024
RC Date: 9/30/2024
RC Reason: Not assigned
SC Date: 9/30/2024
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: No
Hazardous Ranking Score: 0
RRSE: Low
MRSPP: N/A

Phase	Start	End
PA:	6/15/2009	8/15/2009
SI:	2/15/2013	9/30/2024
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: This site is located outside of the southeast corner of the Fort Wainwright vehicle maintenance facility, Building 3498 parking lot. The area of concern is between the utilidor and the fence surrounding the parking area, along Rhineland Avenue. Gas and diesel powered military equipment is staged in the parking area year round. During spring break up and times of heavy rainfall, water runoff collects in the southeast corner of the parking area. The surface water collects in a French drain that is equipped with a shutoff valve. The general practice has been to use sorbent pads to remove sheen caused by equipment drips and spills from the surface of the water before opening the valve to discharge the water into a gravel drainage swale outside of the fenced and paved parking area. Extensive grading and re-contouring of the ground surface has taken place since the drainage swale originally drained the parking area. The current drainage system along Rhineland Avenue can be described more closely as a drainage retention area. Contaminated soil was discovered during excavation for placing the utilidor for buildings being constructed to the east of Building 3498. In 2009, petroleum odors were detected using a photo ionization detector (PID) in excavated soil while conducting the utilidor excavation activities. No confirmation samples were collected. An investigation was conducted in 2015 to determine the horizontal and vertical extent of contaminants in soil identified during 2009 and characterize the potential impact to groundwater from contaminants. Subsurface soil and groundwater sample analytical results indicated that contamination has not migrated into soil or groundwater in the swale area. Contaminants in surface water runoff from the parking lot to the north are present in the sediment and surface water samples collected at and adjacent to the three outlet pipes that discharge surface water from the parking lot. Cleanup/Exit Strategy- The SI report concluded this was related to the Alaska Pollutant Discharge Elimination System (Storm Water) permit and further RI was not warranted. An environmental summary report concluded that the site should be closed and ADEC granted concurrence.

02871.1106_CC-FTWW-110_BUILDING 3014

Env Site ID: CC-FTWW-110
Cleanup Site: BUILDING 3014
Alias: #
Regulatory Driver: CERCLA
RIP Date: 9/15/2029
RC Date: 9/15/2029
RC Reason: Not assigned
SC Date: 9/16/2029
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: Yes
Hazardous Ranking Score: 42
RRSE: Low
MRSPP: N/A

Phase	Start	End
PA:	5/1/2010	5/30/2010
SI:	6/15/2010	7/15/2010
RI/FS:	9/15/2014	9/15/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Building 3014 is a renovated and re-purposed office building located northwest of the intersection of Montgomery Road and Engineer Way and falls within the boundary of another site, FTWW-004 DEH Main Shop (Building 3015). The facility was originally built in the mid-1970s to be a self-help center and a small engine repair facility. The facility was constructed adjacent to, but was not part of, the OU1 Building 3015 drum storage site and had a gravel parking area and an outdoor storage area that was uncovered and fenced. The area was used to store yard equipment, small quantities of fertilizers, house-hold repair parts and paints, etc. Contaminated soil was encountered during utility location activities in August 2010. Further investigation in the area confirmed contaminated soil through laboratory analysis of grab samples from test pits near the southeast corner of Building 3014. In 2011, additional areas of potentially contaminated soil were discovered near the eastern side of the building during paving activities. Laboratory analysis of surface soil samples confirmed the presence of POL compounds. Because the contamination was found during construction activities, the removal actions were designed to remove enough contamination so that construction could be safely resumed. Results of soil and groundwater samples collected during an RI conducted in 2015 were below ADEC cleanup levels indicating there is no VI risk at the site. Soil contamination as identified by historical exceedances could not be repeated in the RI and contamination was not present above project screening levels in groundwater. The risk assessment identified unacceptable cancer risk and non-cancer risk to human health primarily associated with DRO and TCE detections below project screening levels in groundwater; however, ADEC cleanup levels and/or MCLs were incorrectly applied during this risk assessment as outlined in a December 2019 deficiency letter from the USEPA leading to a determination of there being unacceptable risk and no COCs. No ecological risk was identified in the risk assessment. It was determined at the February 2020 FFA meeting by the RPMs that this site would require an expanded RI and risk assessment under CERCLA. Cleanup/Exit Strategy- USEPA has stated that the draft RI would not be approved to be finalized. Therefore, a portion of the RI level field work must be repeated at this site to redefine the risk for this site. The results of the expanded RI will be evaluated to determine the final

cleanup/exit strategy. It is unclear at this time what the conclusions of the revised investigation/risk assessment will be and/or what the corrective action necessary for remediation, if any, will entail. With this uncertainty, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1107_CC-FTWW-107_MOTOR POOL BUILDINGS 3492-4-6Alias: NOU

Env Site ID: CC-FTWW-107

Cleanup Site: MOTOR POOL BUILDINGS 3492-4-6Alias: NOU

Alias:

Regulatory Driver: CERCLA

RIP Date: 9/30/2029

RC Date: 9/30/2029

RC Reason: Not assigned

SC Date: 9/30/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	5/1/2009	5/30/2009
SI:	6/1/2009	6/30/2009
RI/FS:	2/15/2013	9/30/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The project site comprises approximately 15 acres in the southeastern portion of Fort Wainwright, south of Rhineland Avenue and north of Chippewa Avenue. It is located within a parking area that was built sometime between 1986 and 1993. Above and below ground utilities are present onsite. In 2009, the existing asphalt was removed, the area was graded, and a new parking lot was constructed. Over 3,000 soil samples were field screened for petroleum contamination using a PID in surface and near-surface soils (less than 0.5 feet deep) during the 2009 asphalt removal activities. Some areas of near-surface soils with PID readings as high as 225 parts per million (ppm) were identified east of Building 3492. Soil exceeding the 20-ppm action level was also identified in several areas of the parking lots for Buildings 3492, 3494, and 3496. Two grab samples were collected from one excavation where PID readings exceeded 20 ppm in soils that remained in place. One sample contained benzene above the ADEC soil cleanup level. Soil was placed in long-term stockpiles located south of Building 3485. Contamination, including DRO, RRO, and PCE, was detected in all of the characterization samples collected from these stockpiles. The organizational vehicle parking area was covered with eight-inch monolithic pour concrete parking stand, which essentially capped any remaining contamination in the area. Results from the 2015 RI indicated all soil and groundwater contaminants of potential concern were below project screening levels indicating prior contaminated soil excavation activities successfully removed all impacted soils. The risk assessment identified a non-cancer risk to human health associated with DRO. No ecological risk was identified in the risk assessment. A 2021 PSE was conducted along the eastern fence line and the buildings for contamination encountered in 2019 and 2020. It was determined at the February 2020 FFA meeting by the RPMs that this site would be NFA under CERCLA. Cleanup/Exit Strategy- The results of the RI indicated that only POL contamination was present, and PP/DD is being prepared to close in three-party and transfer to two-party for further investigation. The results of the site characterization will be evaluated to determine the final cleanup/exit strategy. It is unclear at this time what the conclusions of the revised investigation/risk assessment will be and/or what the corrective action necessary for remediation, if any, will entail. With this uncertainty, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1108_CC-FTWW-111_MONTGOMERY ROAD EXTENSION

Env Site ID: CC-FTWW-111

Cleanup Site: MONTGOMERY ROAD EXTENSION

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2029

RC Date: 9/15/2029

RC Reason: Not assigned

SC Date: 9/16/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Low

MRSPP: N/A

Phase	Start	End
PA:	5/1/2010	5/30/2010
SI:	6/15/2010	8/15/2011
RI/FS:	9/15/2014	9/15/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: This site is located northeast of 10th Street and Missouri Road. Activities performed at this site were in response to construction plans for the Montgomery Road Extension. Historical aerial photographs indicate extensive warehousing activities occurred near the proposed Montgomery Road Extension. Rows of drums stored on a gravel pad for many years suggest the potential for buried drums and POL and chlorinated compound-contaminated soil. During the July 2010 PSE activities, six test pits were excavated, 24 soil borings were advanced, and four temporary groundwater points were installed in order to delineate contamination at the site prior to planned construction activities. A total of 54 soil samples were collected from soil borings and 13 samples were collected from test pits. Soil and groundwater samples were collected and analyzed. Samples collected during test pitting activities identified DRO contaminated soil in two test pits. Two of 54 soil samples contained DRO above cleanup levels. DRO contamination was also detected in one groundwater grab sample. The 2011 field activities addressed the shallow contamination in Test Pit 2 to allow for the construction project to proceed forward. Test Pit 2 was excavated again to 3 feet bgs, six soil confirmation samples were collected from the floor and walls of the excavation. All sample results were below ADEC cleanup criteria. The horizontal and vertical extent of contaminants in soil at two 'hot spot' areas identified during 2010 field activities were not fully characterized. It is unknown whether or not DRO contamination is a result of past road oiling practices. Results of the RI conducted in 2015 indicated that the nature and extent of previously identified soil and groundwater contamination has been delineated at the Montgomery Road Extension, and the Former Concrete Sewage Treatment Vault (02871.1114). At the Montgomery Road Extension DRO was detected above the project screening level in the former Test Pit 2 and Test Pit 4 areas. Groundwater sample results were below project screening levels indicating that soil contamination is not impacting groundwater quality. An estimated 50 cy of contaminated soil surrounds each location. Soil borings with contaminant concentrations below project screening levels were delineated to the north, southeast, and west of the former Test Pit 4 area. Groundwater sample results were below project screening levels indicating that soil contamination is not impacting groundwater quality. At the Former

Concrete Sewage Treatment Vault (02871.1114 was closed and incorporated into this site) all soil and groundwater sample results were below project screening levels. The results of the ground-penetrating radar survey could not confirm the presence of a pipeline, although evidence of an excavation trench was identified; however, no outfall was observed along the bank of the Chena River. Based on these investigations, a man-made release pathway from the sewage vault to the Chena River was not identified. The risk assessment identified unacceptable cancer risk and unacceptable non-cancer risk to human health primarily associated with DRO in soil and groundwater and arsenic, chloroform, TCE 1-methylnaphthalene, and naphthalene in groundwater. No ecological risk was identified in the risk assessment. It was determined at the February 2020 FFA meeting by the RPMs that this site would require an expanded RI and risk assessment under CERCLA. Cleanup/Exit Strategy- USEPA has stated that the draft RI would not be approved to be finalized. Therefore, a portion of the RI level field work must be repeated at this site to redefine the risk for this site. The results of the expanded RI will be evaluated to determine the final cleanup/exit strategy. It is unclear at this time what the conclusions of the revised investigation/risk assessment will be and/or what the corrective action necessary for remediation, if any, will entail. With this uncertainty, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1109_CC-FTWW-113_NORTHERN LIGHTS HOUSING AREA

Env Site ID: CC-FTWW-113

Cleanup Site: NORTHERN LIGHTS HOUSING AREA

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/30/2029

RC Date: 9/30/2029

RC Reason: Not assigned

SC Date: 9/30/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
PA:	4/15/2012	4/15/2013
SI:	4/15/2013	9/15/2014
RI/FS:	10/15/2014	9/30/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The Northern Lights Housing site is located southeast of the intersection of Gaffney Road and 600th Street on Fort Wainwright. The area was historically used for both permanent and temporary housing. Construction crews were in the process of excavating the footprints for new building pads when they encountered abandoned utilidor runs, piping, and potential soil contamination in seven different areas. A non-Defense Environmental Restoration Program funded removal action was conducted in 2012. Approximately 1,430 cy of contaminated soil and 50 cy of soil mixed with wood debris was removed from seven areas at the Northern Lights Housing site. A total of 126 confirmation samples were collected. Clean limits were reached at five of the seven areas (B43, B42, B42W, B35-36, and B37). DRO- and SVOC-contaminated soil remains in place at B46, and DRO- and VOC-contaminated soil remains in place at B51. The 2015 RI analytical results indicated that the nature and extent of previously identified soil contamination has been delineated. Concentrations of DRO above the screening level were identified in samples from the former B46 and B51 excavation areas. All groundwater samples were below screening levels indicating that contaminants were not migrating to groundwater. The risk assessment identified unacceptable cancer and non-cancer risk to human health. This risk is primarily associated with DRO, arsenic, and chromium in soil and groundwater, but metals in the groundwater attributed to naturally occurring material and not related to former use. However, the ADEC migration to groundwater cleanup levels and/or MCLs were incorrectly applied during the risk assessment as outlined in a December 2019 deficiency letter from the USEPA, leading to a determination of there being unacceptable risk and no COCs. It was determined at the February 2020 FFA meeting by the RPMs that this site would be NFA under CERCLA. Cleanup/Exit Strategy- The results of the RI indicated that only POL contamination was present, and PP/DD is being prepared to close in three-party and transfer to two-party for further investigation. The results of the site characterization will be evaluated to determine the final cleanup/exit strategy. With this uncertainty, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1110_CC-FTWW-112_SAGE HILL

Env Site ID: CC-FTWW-112
Cleanup Site: SAGE HILL
Alias: NOU
Regulatory Driver: CERCLA
RIP Date: 9/30/2024
RC Date: 9/30/2024
RC Reason: Not assigned
SC Date: 9/30/2024
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: No
Hazardous Ranking Score: 0
RRSE: Low
MRSPP: N/A

Phase	Start	End
PA:	7/1/2011	2/14/2013
SI:	2/15/2013	9/30/2024
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The Source Area is within TA-115, which is located in the upper northeast corner of the installation's boundary and south of the Upper Ammunition Supply Point within the explosive safety zone. It is bounded by Birch Hill Rd to the south, East Ammo Rd to the east, Ammo Rd to the north, and Birch Hill Loop to the west. It consists of approximately 280 acres. The area is densely wooded and most of the former 24 identified open storage/distribution points and interconnecting trails have been overgrown by native vegetation. Historical operational records citing quantities and types of munitions stored and distributed at each point are no longer available at the installation; however, it is presumed that only conventional ordnance was distributed from these points. In 2011 Range Control personnel were surveying the Sage Hill Road area to locate new obstacles in the Improvised Explosive Device Detection training area when they came upon a cache of semi-buried and surface disposed 55-gallon drums. Garrison environmental personnel inspected the site and found that some drums were lying on the ground, and some had sunk. The drums were dated in the late-1940s and 1950s and had previously contained a variety of materials (i.e., oil, pesticides, PCE, and other indiscernible materials). Approximately 24 smaller items were also found indicating explosive munitions had been in the area, and all materials were removed in 2011. Historical photos indicate storage and distribution activities throughout the area from 1942 to 1959. In 2015 in conjunction with a PSE, a visual survey was conducted at a total of 16 distribution points, where 52 drums were removed. Of the 52 drums removed, 48 were located within the Site 1 area, and 40 of those drums were consolidated in one area referred to as the Site 1 Drum Cache. Surface soil analytical results identified DRO and RRO contamination in the areas of Site 1 drums #2 and #3. Surface water analytical results identified DRO, RRO, and total aqueous hydrocarbons contamination in the pond adjacent to Site 1 drum #5. Exceedances of metals in soil and surface water are likely attributed to naturally occurring material and not related to former use. Further investigation PSE of Site 1 was contracted in 2019 to better define COCs for this site. Cleanup/Exit Strategy- The results of the PSE indicate to the Army that no further remedial action is required at this

site as contamination is limited to soil surface below actionable risks. Efforts were made to gain concurrence from the regulatory agencies with no response. Site will be closed.

02871.1111_CC-FTWW-114_DRUM SITE WEST OF DRMO

Env Site ID: CC-FTWW-114

Cleanup Site: DRUM SITE WEST OF DRMO

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2029

RC Date: 9/15/2029

RC Reason: Not assigned

SC Date: 9/16/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
PA:	1/15/2014	8/15/2014
SI:	9/15/2014	11/16/2017
RI/FS:	11/17/2017	9/15/2029
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Drum Site West of DRMO encompasses former site FTWW-074_N-4 (02871.1051) which is a 650-foot by 700-foot area approximately 400 feet west of the DRMO salvage yard and 200 feet north of the Old Richardson Highway. This site encompasses an area of approximately 75 acres that extends along the post boundary fence approximately 1,200 ft to the west from the southwest corner of the DRMO yard and approximately 2,700 ft to the north within training area TA-104, created in 2005. Drums and possible munitions debris (MD) were encountered in the area near the boundary fence during 2013 pipeline investigations. Drums and other debris have also been encountered in this area during training exercises. An investigation was conducted in 2015 that identified a total of 10 single drums, two drum piles, several metal scrap piles containing drums and an area of buried drums. Most of the identified drums were partially crushed and none had contents. No munitions-related material was identified. It was also observed that the landfill is not confined to the N-4 site and it encompasses a much larger area to the north and northwest. Surface metal and debris were observed across much of this area. Soil sample analytical results indicated that fuel-related contamination was not present in the surface soil. The results of the surface water sample collected from a trench indicated that DRO, RRO, and total aqueous hydrocarbons contamination was present above project screening levels. The results of the SI recommended to delineate the extent of the landfill, removal of surface drums and debris and further investigation of the buried drums. Also, recommended was additional soil sampling near the surface water trench to identify any other potential sources of contamination. PFOS and PFOA were detected in groundwater above the screening levels outlined in the July 2022 OSD Memo. Cleanup/Exit Strategy- The site is currently recommended for further investigation in the RI/FS phase. The results of the RI will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible to postulate the exit strategy for this site at this time.

02871.1113_FTWW-123_Former B1171 UST985

Env Site ID: FTWW-123

Cleanup Site: Former B1171 UST985

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2029

RC Date: 9/15/2029

RC Reason: Not assigned

SC Date: 9/16/2029

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	9/12/2012	9/12/2014
SI:	9/12/2014	9/15/2029
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Building 1171 is known as the Birch Hill Ski Lodge and located off Ski Road near the northern boundary of Fort Wainwright. Multiple contamination source areas associated with the former Birch Hill Ski facility (Building 1171, Building 1172, Building 1187) have been identified at this site. Tank #985 was an unregulated 1,000-gallon fuel oil UST situated on the eastern side of Building 1171. During demolition of Buildings 1172 and 1171 for a new Ski lodge in 2020, more areas of contamination were discovered. Contamination discovered was DRO, TMB, ethyl and methylbenzene, and naphthalene. This contamination encountered on the northeast side of Building 1172, and two other areas discovered on the north side between the two buildings was not associated with any known USTs for the site. A third contaminated area was discovered approximately 40 feet northeast of Building 1171 during utility trenching. Tank No. 985 was removed on Sept. 10, 2012, and transported to their staging yard on Fort Wainwright. Contamination was encountered at approximately 3.5 feet bgs and groundwater was located at 4.5 feet bgs. A PID used to collect field screening samples indicated results ranging from 3.2 ppm to 780.4 ppm. As a result, all soil displaced during UST removal effort (15 cy) was transported to the Chip Barn Stockpile site. The 10' length x 12' width x 9' depth excavation was partially backfilled to four feet for safety. Six more field screening samples were collected Sept. 15, 2012, PID results ranged from 2.7 to 1,600 ppm. Unregulated UST #214 a 3,000-gallon heating oil tank was removed in 1988/1989-time frame and replaced with a double-walled tank (#214A) that is still in place and being used. Regulated USTs #215/#216 were used for fueling operations at the Ski Hill, and both were removed in July 1991 and replaced with double walled regulated USTs #215A/#216A (02871.1075). COCs identified at the time were DRO, GRO, and BTEX. Annual groundwater monitoring conducted between 1993 and 2000 detected benzene and DRO in groundwater which never exceeded ADEC CULs. ADEC granted cleanup complete closure letter Jan. 7, 2010. Regulated USTs #215A and #216A were removed in 2014. Thirteen soil samples taken at the time indicated ADEC cleanup level exceedances for arsenic and chromium. Former Building 1187 unregulated UST #217 was a 1,000-gallon heating oil tank removed in August 1995. 400 cy of contaminated soil was removed, land farmed and then disposed of in the Fort Wainwright landfill. The

ADEC UST Program closed the site. The 2020 PSE had concentrations in one soil boring that exceeded ADEC CULs for DRO (484 ppm), 1,2,4-TMB (6.38 ppm), 1,3,5-TMB (2.29 ppm), naphthalene (3.68 ppm), 1-methylnaphthalene (MN) (2.23 ppm), and 2-MN (2.79 ppm) at eight to nine feet bgs. 10 cy of DRO contaminated soil lies subsurface, but above groundwater and that the material is de-minimis exposure risk and should not be further investigated. To address the area holistically, this source area has absorbed closed site FTWW-098, Building 1172 (02871.1075), as it is within the contiguous geographic footprint of FTWW-123 Birch Hill Ski Lodge (02871.1113) for POL contamination within the same media (soil). Cleanup/Exit Strategy- The results of the PSE will be used to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible currently to postulate the exit strategy for this site.

02871.1116_FTWW-119_B3730 USTs Removal

Env Site ID: FTWW-119

Cleanup Site: B3730 USTs Removal

Alias: NOU

Regulatory Driver: RCRA-I

RIP Date: 9/15/2030

RC Date: 9/15/2030

RC Reason: Not assigned

SC Date: 9/16/2030

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	6/6/2013	6/28/2015
INV:	6/28/2015	1/2/2023
CAP:	1/3/2023	9/15/2030
DES:	- -	- -
IRA:	- -	- -
IMP(C):	- -	- -
IMP(O):	- -	- -
LTM:	- -	- -

Site Narrative: An unregulated 1,000-gallon tank of anti-freeze (Serial No. 154487) and a regulated 1,000-gallon tank of used oil (Serial No. 154486, ADEC Tank No. 202) were removed in the summer of 2013. Stained soil was observed covering a five by six foot area between the two tanks, but no leaks in the tanks were identified. Soil samples collected from beneath the tanks exceeded the ADEC CULs for DRO and RRO in four samples and tetrachloroethene in one sample; however, analytical results did not exceed any USEPA RSLs. The excavation was backfilled with clean material. There was some small amount of staining around the vent pipes. It should be noted the tanks removed are associated with a site location that was near a historic stand-by boiler plant. In October 2013, an investigation was conducted to characterize potential remaining soil and groundwater contamination in the former tank area. Soil samples collected from one soil boring at the northwest corner of the excavation had DRO and RRO concentrations exceeding ADEC CULs. One groundwater sample had DRO, RRO, and 1,2,4-TMB concentrations exceeding ADEC CULs, and 1,2,4-TMB, 1,3,5-TMB, naphthalene, and benzo(g,h,i)perylene concentrations exceeded USEPA RSLs. In 2018, a PSE was conducted to further characterize soil and groundwater contamination. One soil sample collected just above the groundwater table at 12-13 ft bgs from a boring located at the northeast corner of the UST excavation had DRO and RRO concentrations exceeding ADEC CULs (51,400 mg/kg and 23,800 mg/kg respectively) and the RRO result was also above the ADEC maximum allowable concentration of 22,000 mg/kg. No other samples exceeded ADEC CULs or USEPA RSLs. The area of soil contamination that was identified within and along the western end of the UST excavation in 2013 was not observed during the 2018 PSE. Groundwater samples were collected and analyzed for DRO, RRO, and VOC analysis; no analytes exceeded the ADEC CULs or USEPA RSLs. Based on the sample results, the site still shows a risk above human health levels and has not been characterized, needing further delineation. Cleanup/Exit Strategy- The results of the PSE indicate that risk-based action levels are exceeded, and that site characterization is required to determine risk and the appropriate CAP. The results of the site characterization will be evaluated to determine the final cleanup/exit strategy. It is unclear at this time what the conclusions of the revised investigation/risk assessment will be and/or

what the corrective action necessary for remediation, if any, will entail. With this uncertainty, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1117_FTWW-120_Former AAFES SS, Bldg 3562

Env Site ID: FTWW-120

Cleanup Site: Former AAFES SS, Bldg 3562

Alias: NOU

Regulatory Driver: RCRA-C

RIP Date: 12/16/2018

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
RFA:	6/15/2016	7/30/2016
CS:	- -	- -
RFI/CMS:	7/15/2016	12/22/2016
DES:	12/31/2016	1/31/2018
IRA:	- -	- -
CMI(C):	2/1/2018	12/15/2018
CMI(O):	12/16/2018	9/30/2054
LTM:	- -	- -

Site Narrative: Building 3562 is located on Neely Road, near the intersection of 10th street. This was formerly FTWW-086 (02871.1063) that was in the LTM phase for UST removals in the 1990s. During the months of June and July in 2016, three 10,000-gallon USTs were removed, and the initial abatement of petroleum hydrocarbon contaminated soil occurred at the Former Army Air Force Exchange Service Station, Building 3562. Fort Wainwright Directorate of Public Works entered into a Compliance Order by Consent and Agreement Settling Liability with the ADEC in January 2016 to establish a timeframe and objectives for the USTs permanent closure and corrective actions. These actions have occurred- removed the fuel lines leading from the USTs to the former dispenser locations, removed the AS and SVE lines from a former remediation system and decommissioned AS and SVE wells; removed three 10,000-gallon USTs identified as ADEC UST numbers 177, 179, and 180; removed and thermally treated approximately 1,885 tons of contaminated soil associated with the site and performed confirmation sampling. All USTs and associated piping were in good condition with no sign of leaks. No contamination was found beneath the piping runs, with the exception of locations in the vicinity of the former dispenser sumps. All associated fuel piping was found to be intact. Localized contamination, primarily DRO and GRO, exists in the vicinity of the former middle dispenser at seven feet bgs. Fuel constituents 1,2,4-TMB, 1,3,5-TMB, ethyl benzene, naphthalene, xylene, 1-methylnaphthalene, and 2-methylnaphthalene were found in concentrations equal to or exceeding ADEC cleanup levels. The DRO concentrations in the floor at the limit of excavation exceeded cleanup levels, with sample values ranging from 421 mg/kg to 623 mg/kg. Contamination in the vicinity of the three former USTs consists primarily of GRO and individual compounds associated with gasoline, such as BTEX. All DRO detections were less than cleanup levels. Groundwater was encountered at approximately 14.8 ft bgs on July 1, 2016, and the UST excavation was terminated vertically at this depth. Remaining contaminant concentrations are highest in the zone of seasonal water table fluctuation and all remaining non-aqueous phase liquid near the USTs appears to be restricted to this zone. Contamination still remains in the vicinity of the former USTs. Remaining contamination in the vicinity of the former USTs is characterized below- GRO concentrations range from

442 mg/kg to 9,700 mg/kg. DRO concentrations range from 7.31 mg/kg to 227 mg/kg. Benzene concentrations range from 957 mg/kg to 218,000 mg/kg. VOCs are also detected to be present. Delegation authority was received by the Garrison Commander on March 15, 2017, from Headquarters Installation Management Command G-4. The Garrison Commander signed the CAP on May 31, 2017, for the installation of AS system at the site. Currently, the ICs are inspected annually and reported in the Annual IC Report. Site history, LUC description, boundaries and results of an annual LUC inspection are included in the annual IC Report. Cleanup/Exit Strategy- LUCs/ICs (digging restrictions and no use of the groundwater) will remain in place for the foreseeable future. The AS/SVE was installed summer of 2018, began operation in December 2018, and will operate until COCs have met the RAG requirements. This will be followed up by monitoring and allowing for natural attenuation to occur. The progress of the RAO is reported quarterly in an Operations Report. The nature of the COCs at the above listed sites requires extensive time periods to naturally attenuate in Alaska. The compliance order requires the site to obtain UU/UE prior to a cleanup complete status.

02871.1118_FTWW-121_B3007 Drainage Swale

Env Site ID: FTWW-121

Cleanup Site: B3007 Drainage Swale

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2030

RC Date: 9/15/2030

RC Reason: Not assigned

SC Date: 9/16/2030

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	7/14/2015	7/14/2016
SI:	7/14/2016	9/15/2019
RI/FS:	9/16/2019	9/15/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Approximately 226 gallons of JP-4 fuel was spilled on the Fort Wainwright runway near Building 3007 between July 13 and 14, 2015. Twenty gallons from the spill were recovered, while the majority of it evaporated, seeped into soil, or entered a nearby storm drain. The storm drain is a concrete pipe that runs to Clear Creek, which is a grassy drainage ditch that runs south to north along the runway and only flows water seasonally. The drainage ditch collects a majority of the runoff from the runway including seasonal snow melt. Samples were taken of the groundwater and of the soil in and around the drainage ditch. Soil sample results showed there were contaminants other than fuel in this location. The discovered contaminants are thought to be existing contamination independent of the actual JP-4 spill. All of the soil samples exceeded the RSLs for benzo(a)pyrene. Bis-(2-ethylexyl)phthalate exceeded the RSLs in one of the soil samples. Benzo(a)pyrene concentrations exceeded the ADEC cleanup levels in groundwater and soil samples. All soil samples exceeded the ADEC cleanup levels for DRO and PAH. A follow up SI was conducted in 2018 that concluded approximately 50 feet downstream and 120 feet upstream of the original spill location were contaminated with VOCs, PAHs, DRO, and RRO. TCE was also found in groundwater, but as no soil samples within the drainage swell had TCE detections, the TCE has been attributed to another source area for further investigation. FTWW-121 was recommended in the 2018 SI for further investigation under the two-party program. Site characterization, the state equivalent to an RI, was conducted and completed in 2020. Final review of the report was completed in 2021. The 2020 site characterization utilized the historical sampling results to expand the investigation area and delineate the extent of soil and groundwater contamination within the swale. Sampling results were compared to the current ADEC CULs, and the results were consistent with previous investigations, showing the highest concentrations of DRO and RRO in the immediate vicinity of the riprap and stormwater discharge point. The concentrations of PAHs followed a similar pattern as the DRO/RRO results, but exceedances of ADEC CULs were identified over a larger area. The analytes with the most widespread exceedances were benzo(a)anthracene and benzo(a)pyrene. The soil and groundwater sampling results from 2020 and all previous investigations were utilized to describe the

nature and extent of contamination at the Building 3007 Drainage Swale site in accordance with ADEC guidance. The sampling results showed the areal extent of soil contamination above the ADEC Method Two Migration to Groundwater CUL was approximately 3,700 square feet for DRO and PAHs, and 1,500 square feet for RRO. The investigation results indicate the Drainage Swale subarea of 02871.1118 has been delineated for POLs and will not require further investigation for delineation at the RI phase. The PSE for well AP-5531 showed extensive TCE contamination in the groundwater. It was recommended for an RI under CERCLA. Cleanup/Exit Strategy- The site is currently recommended for further investigation in the RI/FS phase. The results of the RI will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site at this time.

02871.1119_FTWW-115_Building 1004

Env Site ID: FTWW-115
Cleanup Site: Building 1004
Alias: NOU
Regulatory Driver: CERCLA
RIP Date: 9/30/2030
RC Date: 9/30/2030
RC Reason: Not assigned
SC Date: 9/30/2030
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: Yes
Hazardous Ranking Score: 42
RRSE:
MRSPP: N/A

Phase	Start	End
PA:	6/25/2005	6/25/2010
SI:	6/25/2010	10/28/2022
RI/FS:	10/29/2022	9/30/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: During trenching activities in the summer of 2005 to install electrical lines for head bolt outlets near Building 1004, an odor was noticed. Elevated PID readings were used to take samples, which found GRO and DRO to be present above screening levels. Due to the nature of the construction work, the limited excavation was completed, and the source area was turned over to the ADEC Contaminated Site Program. Historical research showed that a former power plant used to sit within the vicinity of 1004 and a petroleum AST was formerly co-located with the power plant. SI field work completed in summer of 2019 identified POL contamination in soil and groundwater and detected mercury in a reinstate sample above USEPA RSLs but below the limit of detection, so it was a qualified sample. Further investigation under CERCLA for both soil and groundwater were recommended by the report. Further investigation in the form of a site characterization report is scheduled. The PSE made the determination that the source area contains only POL contamination, and is therefore closed under CERCLA, and not under the FFA. Cleanup/Exit Strategy- The results of the site characterization report will be evaluated to determine under which regulatory program the RI should take place. It is unclear at this time what the conclusions of the investigations will be and/or what the corrective action necessary for remediation will entail. With this uncertainty, and the full extent of contamination unknown, it is not possible at this time to postulate what the exit strategy for this site will be beyond the RI/FS phase.

02871.1121_FTWW-116_FTW373C Org Vehicle Parking

Env Site ID: FTWW-116

Cleanup Site: FTW373C Org Vehicle Parking

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/30/2026

RC Date: 9/30/2026

RC Reason: Not assigned

SC Date: 9/30/2026

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	8/18/2014	8/18/2016
SI:	8/18/2016	9/30/2026
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Initially, Building 3475 was a tactical equipment and small engine repair facility and Building 3477 housed the Nike/Hercules air defense missile system support facilities, which included a battery maintenance and storage for all electrical components within the system. It was subsequently converted to a vehicle maintenance facility with a fenced, unpaved area used to stage vehicles before and after scheduled maintenance/repairs. Multiple minor spills have been reported in the vicinity of Building 3479, Building 3475, and Building 3477 in the parking area, which were investigated and removed during the parking lot demolition in 2012. In the summer of 2014, during new parking area construction activities, PID readings identified suspected contamination. In 2014, samples were collected from the north and northeast excavation stockpiles east and south excavation floor and sidewalls, and one test pit. Fixed-lab sample results showed exceedances of the collected samples, and an exceedance for lead was detected in two of the samples. Seven cy of lead contaminated material was excavated and disposed of appropriately. Excavation of contaminated soil and confirmation sampling activities was conducted in 2014; however, some contaminated soil may have remained. The POL-only contaminated soil (140 cy) was excavated and moved to the Chip Barn Contaminated Soil Stockpile area and subsequently thermally remediated prior to placement at the clean soil stockpile area. Fixed-lab samples indicate that the soil and groundwater under the new concrete parking area are clean. The only contamination remaining is along the southern edge of the concrete lot. The 2018 PSE included drilling and sampling four soil borings. With the exception of arsenic, which was determined to be naturally occurring, no analytes exceeded ADEC CULs or USEPA RSLs in soil samples. All four borings were completed as temporary wells. Two analytes, mercury and 1,2-DCA, exceeded RSLs and RRO exceeded ADEC CUL in groundwater. The PSE recommended NFA at this source area. The exceedances of the USEPA RSLs for 1,2-DCA and mercury in groundwater were both estimated concentrations, as the detections were below the limit of quantification. The PSE recommended transfer of the source area to the two-party program. ADEC requested further groundwater sampling and the Army agreed in April 2019. July 2020 PSE report recommended installation and sampling of two additional wells along with

the two existing wells at Building 3730, UST removal site. Cleanup/Exit Strategy- ADEC stated, Oct. 14, 2023, they would not close with ICs due to incomplete delineation of COCs. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site.

02871.1124_FTWW-126_ATF - B2077 Parking Lot

Env Site ID: FTWW-126

Cleanup Site: ATF - B2077 Parking Lot

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2030

RC Date: 9/15/2030

RC Reason: Not assigned

SC Date: 9/16/2030

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	4/1/2014	5/5/2017
SI:	5/6/2017	9/30/2022
RI/FS:	10/1/2023	9/15/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Historical spills and releases occurred in the ATF area as a result of normal operating activities (aircraft parking, maintenance, refueling, re-arming, cargo storage/loading activities and other related activities) since 1940. The entire area was historically used for staging and storing drums of hazardous materials, dry goods, equipment, and other similar types of products. In September 2011, during trenching for electrical lines and parking lot repaving on the south side of the building, a strong fuel odor was encountered in the soil. A soil investigation detected DRO and GRO above ADEC cleanup levels with results of 5,700 mg/kg and 5,000 mg/kg, respectively, located four feet bgs at the western edge of the area boundary. Based on visual and olfactory observations and field screening results, soil contamination appeared to extend west, north, and south of the sample location, but not east. In 2015, five soil borings were advanced at the area to 10 feet bgs. One soil boring was advanced to 25 feet bgs and completed as a monitoring well. Six primary soil samples and one primary groundwater sample were collected and analyzed for GRO, DRO, RRO, VOCs, SVOCs, and lead. One soil sample from 5.5 to 6.5 feet bgs exhibited concentrations of DRO and GRO above the screening levels, with results of 3,600 mg/kg and 6,200 mg/kg, respectively. The associated duplicate sample (15B2077-SB03A) also exceeded screening levels for DRO and GRO with results of 5,700 mg/kg and 5,000 mg/kg, respectively. All other analytes for both soil samples and groundwater samples were below applicable screening levels. Soil samples collected from step out soil borings located in the four cardinal directions indicate that soil contamination is isolated to the one area of the parking lot on the eastern edge of the former excavation and is not migrating. Groundwater sample results indicate that contamination has not migrated to groundwater. There were no exceedances of PFAS above the screening levels outlined in the July 2022 OSD Memo. Cleanup/Exit Strategy- An RI equivalent document under the two-party program is needed investigate risk and delineate of contamination at the site. The results this investigation will determine final the exit strategy.

02871.1126_FTWW-127_B3030 - S LDock - Neely Rd

Env Site ID: FTWW-127

Cleanup Site: B3030 - S LDock - Neely Rd

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2030

RC Date: 9/15/2030

RC Reason: Not assigned

SC Date: 9/16/2030

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	11/1/2014	4/1/2017
SI:	4/2/2017	8/11/2021
RI/FS:	8/12/2021	9/15/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: During groundwater monitoring for the Neely Road Building 3570, Former PX Gas Station (ADEC Hazard ID- 3691), an anomaly was observed in the downgradient monitoring well AP-9685. The well was installed in November 2007 and has had sampling events every year since installation. During the preparation of the 2014 report, it was discovered that an exceedance of the ADEC cleanup goal for PCE was observed. The PCE concentration in AP-9685 was 46 ug/L in July 2014 but dropped to 2.0 ug/L in October 2014. For the 2015 sampling events PCE concentrations were 1.2 ug/L and 2.3 ug/L, below the ADEC cleanup level of 5 ug/L. Upon review of historical data, PCE has exceeded the ADEC cleanup level in seven of 20 sampling events of this well. PCE exceedances have occurred in sampling events during the late spring and summer (between May and August) and typically have occurred during years where groundwater elevations were high. With the exception of AP-9685, PCE has only been detected in trace (below 1 ug/L) concentrations in groundwater samples collected from the Neely Road site. Since the source of PCE in AP-9685 may not be connected to the Neely Road site, the Army proposed to conduct an investigation that is separate from the Neely Road groundwater monitoring project. PCE has not been detected above reporting limits in any other monitoring wells. In addition, no PCE daughter products (trichloroethene [TCE], cis-12-dichloroethene [cis-12-DCE], trans-1,2-dichlorethene [trans-1 2-DCE], or vinyl chloride) have been detected above ADEC cleanup levels. TCE, cis-1,2-DCE, and trans-1,2-DCE have been detected periodically in AP-9685 and detected concentrations of these analytes correspond to sampling events with higher PCE concentrations. Results of the 2020 PSE 2 did not identify soil contamination that would represent a contaminant source, and analytical results in soil samples did not present a current or future threat to human health or the environment. However, groundwater sampling results identified PSE screening level exceedances on the south and north sides of Building 3030. The source of the solvent contamination in groundwater remains unknown, and additional investigation as part of an RI/FS is recommended to further delineate the groundwater plume and evaluate a possible contamination source. A PSE for VI for Building 3030 was finalized and showed no VI risk but further evaluation will be done in the RI. Also, stand-alone effort to get additional groundwater

samples is currently underway results of which will inform the RI. Cleanup/Exit Strategy- The site is currently recommended for further investigation in the RI/FS phase. The results of the RI will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site at this time.

02871.1127_FTWW-129_ATF-Form Hang 3 Utilidor Expan

Env Site ID: FTWW-129
Cleanup Site: ATF-Form Hang 3 Utilidor Expan
Alias: NOU
Regulatory Driver: CERCLA
RIP Date: 9/30/2024
RC Date: 9/30/2024
RC Reason: Not assigned
SC Date: 9/30/2024
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: Yes
Hazardous Ranking Score: 42
RRSE:
MRSPP: N/A

Phase	Start	End
PA:	4/1/2014	4/1/2017
SI:	8/1/2017	9/30/2024
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Historical spills and releases occurred in the ATF area as a result of normal operating activities (aircraft parking, maintenance, refueling, re-arming, cargo storage/loading activities and other related activities) since 1940. The entire area was historically used for staging and storing drums of hazardous materials/hazardous waste dry goods equipment and other similar types of products. The Hangar 3 building was demolished in 2010 and turned into the Hanger 6 parking lot. In 2010, during utility installation activities in the area southeast of Former Hangar 3, the contractor encountered soil potentially contaminated by fuel and TCE. Investigations conducted later that year detected various VOCs, SVOCs, DRO, and GRO in the soil at concentrations exceeding ADEC and USEPA cleanup levels. Dieldrin, a pesticide, was also detected in one sample from zero to two feet bgs with a result exceeding the ADEC cleanup level. In 2011, field investigation activities focused on five locations limited to the areas immediately under construction. Investigations centered on VOC and pesticide exceedances. Approximately 660 cy of contaminated soil was removed. Confirmation sampling verified removal of contaminated soil, with the exception of two DRO samples above the ADEC cleanup level with results of 645 mg/kg four feet bgs and 783 mg/kg eight feet bgs. Neither location could be over-excavated due to proximity to a buried utility corridor (USACE 2012a). In 2015, field investigation activities consisted of advancing three soil borings to investigate contamination near Excavation 3 and 4 areas. Two soil borings were converted to monitoring wells, one in the source area and one downgradient of the source. A total of five soil and three groundwater samples, including field duplicates, were collected and analyzed for GRO, DRO, RRO, VOCs, and SVOCs. One soil sample from seven to eight feet bgs exceeded the screening levels for DRO, RRO, and GRO with results of 3,900 mg/kg, 4,400 mg/kg and 760 mg/kg, respectively. All other analytes for both soil and groundwater were below the applicable screening levels. Soil sample analytical results identified DRO, RRO, and GRO contamination in the subsurface at the same location as the historical detection in the southern portion of the former Excavation 3 area although at a higher concentration and extending to eight feet bgs. The soil sample collected from the downgradient soil boring indicated that soil contamination is not migrating. Cleanup/Exit Strategy- The results of the PSE

indicate to the Army that no further remedial action is required at this site as contamination is limited to soil surface below actionable risks. Efforts will be continued to gain concurrence from the regulatory agencies.

02871.1128_FTWW-130_B3480 UST 208

Env Site ID: FTWW-130
Cleanup Site: B3480 UST 208
Alias: NOU
Regulatory Driver: CERCLA
RIP Date: 9/15/2030
RC Date: 9/15/2030
RC Reason: Not assigned
SC Date: 9/16/2030
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: Yes
Hazardous Ranking Score: 42
RRSE:
MRSPP: N/A

Phase	Start	End
PA:	9/24/2013	5/27/2014
SI:	4/1/2017	10/21/2021
RI/FS:	10/22/2021	9/15/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Tank 902, ADEC Number 208, was a regulated 1,000-gallon, double walled used oil tank. It was situated on the eastern side of Building 3480. The UST was removed on Sept. 23, 2013. Maximum dimensions of this excavation were approximately 22-ft long, 13-ft wide, and 12-ft deep. A PID was used to collect field screening samples where results ranged from 4.2 ppm to 3,200 ppm. Six primary, and one duplicate, confirmation soil samples were collected from the excavation. Four 1-cy Super Sacks(r) were filled with the investigation-derived waste soil and one analytical composite waste soil sample was collected. Soil confirmation and waste samples were analyzed for GRO, DRO, RRO, VOCs, SVOCs, and metals. Clean stockpiled soil was used for backfill. Based on elevated field screening and confirmation sampling results, a subsurface investigation beyond the extent of the original Building 3480 excavation was conducted. On Oct. 10, 2013, and Oct. 11, 2013, three soil borings were advanced to a depth of approximately 16 feet, where three primary analytical soil samples were collected. Two temporary groundwater well points were made to collect two grab samples. Results were compared to the ADEC cleanup levels at the time of this project (2013) and were also compared to the USEPA's MCL-based soil screening levels. Fifteen samples exceeded the cleanup level for arsenic with concentrations ranging from 4.16 to 12 mg/kg but were within background levels. Twenty-three sample results exceeded the cleanup level for methylene chloride (0.016 mg/kg) but were flagged as false positives based on the fact that methylene chloride is a common laboratory contaminant. Results from four samples exceeded the cleanup level for DRO with concentrations ranging from 3,800 mg/kg to 11,000 mg/kg. Results from three samples exceeded the cleanup level for RRO with concentrations of 23,000 mg/kg to 57,000 mg/kg. Results for PCE exceeded the cleanup level (0.024 mg/kg) in one sample with a concentration of 0.048 mg/kg; results for GRO exceeded in one sample with a concentration of 600 mg/kg. Ten soil characterization samples and two groundwater grab samples were collected during the extended investigation. Results from one primary soil sample and its duplicate exceeded the cleanup for DRO with concentrations of 2,800 mg/kg and 3,000 mg/kg. Results from groundwater samples did not exceed ADEC cleanup criteria. Cleanup/Exit Strategy- The results of the PSE indicated that risk-based action

levels were exceeded, and that further investigation was required. The site characterization, risk assessment will determine the CAP.

02871.1129_FTWW-118_North Post Sink Hole

Env Site ID: FTWW-118

Cleanup Site: North Post Sink Hole

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2030

RC Date: 9/15/2030

RC Reason: Not assigned

SC Date: 9/16/2030

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	5/15/2017	6/15/2018
SI:	6/16/2018	4/22/2020
RI/FS:	4/23/2020	9/15/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: On May 15, 2017, a small sinkhole developed around an anchor of a power pole behind Building 1420. The hole was approximately three to four-feet deep and a layer of burned material and debris was observed inside the hole. No debris was observed at the surface in the vicinity of the sinkhole. A variety of metallic and non-metallic debris was observed at the bottom of the sinkhole and protruding from the sidewalls, including burned and unburned wood, glass, rusty wires, and scrap metal, coal ash, and drums. May 2017 site investigation and geophysical investigation found a 200-foot-long and 50-foot-wide, eight feet deep, bow-shaped anomaly in addition to multiple singular anomalies in the general area. Groundwater monitoring wells were installed to depths of 14 to 15 ft bgs. COCs in subsurface soils were PCBs, carbon tetrachloride, chloroform, naphthalene, and TCE. COCs in groundwater were lead, arsenic, and chloroform. An expanded investigation in 2019 confirmed further amounts of buried debris from six inches in depth to 10 ft bgs. Additional soil sampling added COCs of RCRA metals to the previous COCs. Groundwater sampling added further COCs of TCE, cadmium, arsenic, and mercury. The final report called for further investigation to delineate the extent of contamination and whether Building 1418 and 1420 were built upon the contamination. Reviewing records, the slough had been filled in the 1950s. USACE was conducting a housing construction project in 1984 and identified the slough area as containing coal ash and other solid debris. The site was entered into the FFA and identified under the RCRA permit as FTWW-050 North Post Site (02871.1027). The original test pits in 1985 identified Site #1 and Site #5 at 1,300 feet and 500 feet to the west of the current site between Building 1420. This information provides that the entirety of the seven-acre slough will need to be fully delineate this site and assess risk as housing development was developed on this site in the early 2000s. Cleanup/Exit Strategy- The results of the RI will be evaluated to finalize the exit strategy. It is unclear at this time what the conclusions of the investigations will be or what, if any, actions will need to be taken in the future. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site beyond the study phase.

02871.1131_FTWW-PFAS_PFAS

Env Site ID: FTWW-PFAS

Cleanup Site: PFAS

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2030

RC Date: 9/15/2030

RC Reason: Not assigned

SC Date: 9/16/2030

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	9/30/2017	9/29/2018
SI:	9/30/2018	2/28/2022
RI/FS:	3/1/2022	9/15/2030
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The first PFAS sampling at Fort Wainwright occurred in 2013. Additional sampling for PFAS was executed on a piecemeal basis at various sites. A comprehensive PA/SI, finalized in 2021, was done to determine the current or potential historical use of PFAS and identify areas where PFAS may have been released to the environment. The PA identified 14 AOPIs for investigation during the SI Phase. AOPIs were also discussed with the regulatory partners prior to the SI. PFOS, PFOA, and PFBS were detected in soil and/or groundwater at all 14 AOPIs; eight of the 14 AOPIs had PFOS, PFOA, or PFBS present at concentrations greater than the OSD risk screening levels. In 2022 and 2023 scoping of the RI occurred at several of the monthly FFA RPM meetings with input from regulatory partners. This RI began with field sampling to occur in phases with the first phase being a site-wide groundwater evaluation. This will inform sampling for the future delineation phases of the RI. Cleanup/Exit Strategy- The installation wide PFAS RI/FS is carried under this source area. Without the results of the PA/SI nor the RI/FS, it is not possible to postulate a cleanup/exit strategy for this source area beyond the study phase.

02871.1086_FTWW-008-R-01_BOMBING FROM WAINWRIGHT TO

Env Site ID: FTWW-008-R-01

Cleanup Site: BOMBING FROM WAINWRIGHT TO

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2027

RC Date: 9/15/2027

RC Reason: Not assigned

SC Date: 9/16/2027

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 9

Phase	Start	End
PA:	3/25/2002	5/1/2003
SI:	9/30/2005	9/15/2027
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The Former Bombing Range is comprised of 475,902 acres. The site is currently owned primarily by the state of Alaska with a small parcel controlled by BLM and a few homesteads and mining claims. It is located outside the installation boundary between Fort Wainwright and Fort Greely and is adjacent to the northern portion of the Donnelly Training Area. The former range was used for various purposes between 1942 and 1973. Bombs and rockets were dropped or deployed either as part of military training or by Russian Lend-Lease Pilots trying to lighten their cargo loads due to in-flight emergencies. In addition to bombing practice, training in the area was reported to include air-to-air gunnery practice and tow target missions. These training exercises included the use of rockets, small arms, and pyrotechnics. No additional information was available concerning the targets or impact areas of the bombing areas. In 2010, a light detection and ranging site survey was conducted over the entire bombing area between Fort Wainwright and Fort Greely in the hopes of finding gross target areas with the highest potential concentration of discarded military munition, MD, and UXO. An orthographic (3-dimensional) photograph survey was conducted to supplement light detection and ranging for the location of potential UXO bombing sites. The light detection and ranging data were processed using various techniques and software sets. The computer analysis identified 48,862 potential craters. Topographical features in the area have characteristics similar to bomb craters, so a visual interpretation was conducted to determine whether the high number of suspected craters identified by the computer could be due to natural topography. This analysis resulted in the identification of 73 suspected craters, 20 of which matched the computer analysis identifications. It was concluded that the computer analysis had selected topographical features representing steep terrain and natural depressions that were small in size, and not necessarily bomb craters. A majority of the potential craters visually identified were located in two areas southwest of Blair Lakes, at the former Blair Lakes bombing range (located to the south of the current Blair Lakes Air Force Range). These areas were later confirmed to be target areas based on historical documents found in the Archaeology Office on Fort Wainwright. In 2012, three site visits were conducted at the two target areas. The contractor walked the two areas and visited a subset

of the suspect craters that were visually identified as bomb craters, as well as sites identified as potential craters by the computer analysis. The field team determined that the visually identified anomalies were bomb craters while the computer identified anomalies were generally topographic features and not bomb craters. The team also reported that most of the terrain was sloppy, wet, and covered with muskeg making walking slow and difficult. All of the confirmed bomb craters were filled with muddy water to approximately ground surface level making further confirmatory investigations impossible. In addition, the contractor made several attempts to contact all permitted users of this area (i.e., hunters, trappers, native tribes, miners, and homesteaders) by physically walking onto the private property, mailing information and questionnaires to the addresses on file with state of Alaska agencies, and informational ads in local newspapers. Cleanup/Exit Strategy- The Army is conducting an SI which consists of a comprehensive photo analysis, a revised historical records review and site investigation. With this uncertainty, it is not possible at this time to postulate the exit strategy for this site.

02871.1132_CC-FTWW-016-R-01_1946 CWM Burial Site

Env Site ID: CC-FTWW-016-R-01

Cleanup Site: 1946 CWM Burial Site

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2028

RC Date: 9/15/2028

RC Reason: Not assigned

SC Date: 9/16/2028

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE: N/A

MRSPP:

Phase	Start	End
PA:	6/1/1991	5/17/2019
SI:	5/18/2019	9/15/2025
RI/FS:	9/16/2025	9/15/2028
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: A 1991 records search for Fort Wainwright identified a chemical agent dump site from an Aug. 24, 1965, memorandum to the Commander of the US Army Alaska, that 20 to 30 cylinders were buried at a site between 1946 and 1947 with removal occurring in 1966. The May 2019 Supplemental Historical Records Review (SHRR) indicates possible sites where chemical agents were buried then recovered and the site where the material was destroyed. During the SHRR investigation, aerial imagery was found showing land disturbances in 1948 and 1967 (corresponding to the initial burial and recovery timeframes) at the Military Grid Reference System (MGRS) grid coordinate 06WVS722932, which appears to be a more likely location of the original 1946 burial site than the location investigated in a 1997 interim removal action FTWW-082 Chemical Agent Dump Site (02871.1059) in which no chemical warfare material (CWM) was discovered. Two additional areas in the same geographical area have also been identified through records research and interviews, one being located along the Birch Hill Loop Road within the Birch Hill Tank Farm USTs and another located on the same road at the top of the hill of the Birch Hill Tank Farm USTs. Potential COCs are mustard gas, lewisite, and chemical agent test sets (CAIS). The US Army Technical Center for Explosive Safety is doing an SI for these areas. Cleanup/Exit Strategy- The results of the SI will indicate whether additional investigation is required to evaluate risk.

02871.1133_CC-FTWW-017-R-01_1966 CWM Disposal Area

Env Site ID: CC-FTWW-017-R-01

Cleanup Site: 1966 CWM Disposal Area

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2028

RC Date: 9/15/2028

RC Reason: Not assigned

SC Date: 9/16/2028

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE: N/A

MRSPP:

Phase	Start	End
PA:	9/1/1991	5/17/2019
SI:	5/18/2019	9/15/2025
RI/FS:	9/16/2025	9/15/2028
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: A 1991 records search for Fort Wainwright identified a chemical agent dump site from an Aug. 24, 1965, memorandum to the Commander of the US Army Alaska, that 20 to 30 cylinders were buried at a site between 1946 and 1947 with removal occurring in 1966. Interviews with the backhoe operator on Fort Wainwright in the 1960s indicated that drums and crates were removed from Birch Hill area and transported to a pit south of Fort Wainwright and across the Richardson Highway. The May 2019 SHRR indicates possible sites where chemical agents were buried then recovered and the site where the material was destroyed. During the SHRR investigation, aerial imagery was found showing land disturbances in 1948 and 1966 (corresponding to the initial burial and recovery timeframes) at the MGRS grid coordinate 06WVS720850, which appears to be a more likely location of the original 1966 disposal site than previously suspected. Potential COCs are mustard gas, lewisite, CAIS, DRO, and MEC. The US Army Technical Center for Explosive Safety is doing an SI for these areas. Cleanup/Exit Strategy- The results of the SI will indicate whether additional investigation is required to evaluate risk.

02871.1134_CC-FTWW-018-R-01_EOD Demolition Area

Env Site ID: CC-FTWW-018-R-01

Cleanup Site: EOD Demolition Area

Alias: NOU

Regulatory Driver: CERCLA

RIP Date: 9/15/2028

RC Date: 9/15/2028

RC Reason: Not assigned

SC Date: 9/16/2028

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: Yes

Hazardous Ranking Score: 42

RRSE: N/A

MRSPP:

Phase	Start	End
PA:	9/1/1991	5/17/2019
SI:	5/18/2019	9/15/2025
RI/FS:	9/16/2025	9/15/2028
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The Explosive Ordnance Disposal (EOD) Demolition Area (formerly 02871.1047, FTWW-070_Former EOD Range, Alpha Impact) is located on the small arms range in the southeast corner north of the Tanana River. In 1961, Fort Wainwright developed ranges south of the Richardson Highway that created firing fans overlapping the OB/OD River site CC-FTWW-068, OU-5 OB/OD (02871.1112) that precluded its use during the use of the range. The EOD range was used for demolition of up to 6.8 kg TNT or the equivalent and small arms up to 0.50 caliber. Estimates were that 1,000 to 6,000 rounds of small arms munitions were burned quarterly. The site was active from 1950 through 1983 as noted in the Installation Assessment Report. Potential COCs are cyanide, POLs, MD, and MEC. This site includes 02871.1133, 1966 CWM Disposal Area. The US Army Technical Center for Explosive Safety is doing an SI for these areas. Cleanup/Exit Strategy- The results of the SI will indicate whether additional investigation is required to evaluate risk.

SITE SUMMARY

SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
02871.1001	FTWW-001_MOTOR POOL (BLDG 3421,3725,5195	12/23/2020
02871.1002	FTWW-002_MOTOR POOL(BLDG 3485,3487)	2/28/1993
02871.1004	FTWW-004_DEH MAIN SHOP (BLDG 3015)	12/23/2020
02871.1005	FTWW-005_AUTO HOBBY SHOP (BLDG 1053)	12/22/2020
02871.1006	FTWW-007_EQUIP MAIN FACILITY (BLDG 3489)	12/31/1981
02871.1007	FTWW-008_PAINT SHOP (BLDG 3022)	12/31/1981
02871.1008	FTWW-010_LAUNDRY (BLDG 3025)	12/31/1981
02871.1010	FTWW-016_SHOPS (BLDG 1595)	12/22/2020
02871.1011	FTWW-017_SHOP (BLDG 1553)	12/31/1981
02871.1012	FTWW-018_PHOTO SHOP (BLDG 3009)	12/31/1981
02871.1013	FTWW-019_NORTH POINT POL (BLDG 1565)	12/24/2020
02871.1014	FTWW-020_POWER PLANT 2 (BLDG 1561)	8/31/1988
02871.1015	FTWW-021_DARK ROOM (BLDG 1045)	12/31/1981
02871.1016	FTWW-023_DYKE RANGE	12/29/2020
02871.1017	FTWW-024_BLAIR LAKES DISPOSAL SITE	9/30/1988
02871.1018	FTWW-025_FORT WAINWRIGHT MANEUVER AREA W	12/31/1981
02871.1020	FTWW-027_PESTICIDE STGE (BLDG 4072)	12/31/1981
02871.1021	FTWW-028_PCB SPILL IN BUILDING 3568	12/31/1981
02871.1025	FTWW-048_RAILROAD STORAGE YARD	1/31/1992
02871.1026	FTWW-049_CONTAMINATED SOIL PILE(POWER PL	9/30/1995
02871.1028	FTWW-051_UST, BLD 3423 (269,#270)	7/31/1989
02871.1030	FTWW-053_UST, BLG 1956(#325)	1/31/1991
02871.1031	FTWW-054_UST, BLDG 4109 (#299)	1/31/1991
02871.1033	FTWW-056_UST, BLDG 3481(#275,#276)	12/22/2020
02871.1035	FTWW-058_UST,BLDG 4057,(#303)	7/31/1990
02871.1036	FTWW-059_UST, BLDG 4065 (#305,#304)	12/31/1981
02871.1037	FTWW-060_UST, BLDG 4247 (#309)	11/30/1993
02871.1038	FTWW-061_UST, BLDG 5004,(UST 310)	12/29/2020
02871.1042	FTWW-065_FLY ASH POND	12/31/1990
02871.1046	FTWW-069_WATER TREATMENT PLANT SETTLING	1/31/1990
02871.1047	FTWW-070_FORMER EOD RANGE, ALPHA IMPACT	1/31/1990
02871.1048	FTWW-071_TRAINOR GATE RAILROAD SPUR	1/31/1992
02871.1050	FTWW-073_NIKE SITES B & C CLEANUP	11/30/1994
02871.1051	FTWW-074_N-4	2/9/2021
02871.1052	FTWW-075_BIRCH HILL RADIOACTIVE SITE	3/31/1993
02871.1053	FTWW-076_GOLF COURSE PESTICIDE SHED - 22	9/14/2020
02871.1054	FTWW-077_BLDG 1567	1/1/2021
02871.1059	FTWW-082_CHEMICAL AGENT DUMP SITE	10/31/1995
02871.1063	FTWW-086_UST, BLDG 3562	7/30/2016
02871.1065	FTWW-088_UST, BLDG 1060	12/22/2020
02871.1066	FTWW-089_UST, BLDG 3425	6/30/1997
02871.1067	FTWW-090_UST, BLDG 3479	9/30/1993

CRL ID	Site Name	Site Closeout Date
02871.1069	FTWW-092_TRANSFORMER EAST OF BLDG 3019	12/31/1981
02871.1072	FTWW-095_UST, BLD 1002	11/30/2009
02871.1075	FTWW-098_UST, BLD 1172	6/30/2021
02871.1095	CC-FTWW-04_Pipeline Remediation-POL Sour	9/30/2015
02871.1099	CC-FTWW-01_Bldg 3598/3595	1/1/2021
02871.1114	02871.1114_Montgomery Rd Concrete Vault	8/2/2018
02871.1130	FTWW-122_B2116 Parking Lot	3/26/2020
02871.1079	FTWW-001-R-01_TA-105	2/6/2020
02871.1080	FTWW-002-R-01_TA-101	2/6/2020
02871.1081	FTWW-003-R-01_TA-107	6/30/2009
02871.1082	FTWW-004-R-01_ARCTIC SURVIVAL AREA--SKI	2/6/2020
02871.1083	FTWW-005-R-01_MACHINE GUN SQUARE	3/31/2007
02871.1084	FTWW-006-R-01_NE ARCTIC INDOCTRINATION A	5/1/2003
02871.1085	FTWW-007-R-01_YUKON RIVER	6/30/2009
02871.1087	FTWW-009-R-01_SOLID WASTE LANDFILL	6/30/2009
02871.1089	FTWW-010-R-01_DTA RIFLE RANGE	11/15/2019
02871.1090	FTWW-011-R-01_MISSILE RANGE	6/30/2009
02871.1091	FTWW-012-R-01_HAND GRENADE COMPLEX	6/30/2009
02871.1092	FTWW-013-R-01_BAYONET ASSAULT COURSE	6/30/2009
02871.1093	FTWW-014-R-01_Airfield Firing-in-Butt	6/30/2009
02871.1094	FTWW-015-R-01_Pistol Range	6/30/2009
02871.1112	CC-FTWW-068_OB/OD RIVER SITE	7/29/2019
02871.1115	CC-FTWW-06_Hangar 6 Soil Disposal	8/31/2007

COMMUNITY INVOLVEMENT

Community Involvement Plan (Date Last Reviewed):	02/03/2021
Technical Review Committee Establishment Date:	N/A
Restoration Advisory Board (RAB) Establishment Date:	9/30/1997
RAB Adjournment Date:	9/30/2004
RAB Adjournment Reason:	There is no longer sufficient, sustained community interest
Reasons for Not Establishing RAB:	N/A
RAB Date of Solicitation from Community:	09/20/2021
RAB Results of Solicitation:	No interest
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A
Administrative Record Location:	DPW Fort Wainwright 4320 Neely Road Fort Wainwright Alaska 99703
Information Repository Location:	Noel Wien Library 1215 Cowles Street Fairbanks, Alaska 99701

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Planned	FYR	8/1/2025	9/29/2026	N/A	N/A	N/A
Completed	FYR	10/1/2021	3/21/2022	A Five-Year Review (FYR) Addendum will report all the issues and recommendations of the FYR and be finalized by 31 Mar 2025.	Issues and recommendations listed in the fifth FYR and input from the EPA's independent findings of protectiveness deferred are being consolidated into a future contract action. Some issues have been addressed through other efforts.	Remedies at OUs 1, 2, 3 and 6 remain protective. For remedies at OUs 4 and 5, a protectiveness determination cannot be made until further information is obtained.