

Fort Greely, Alaska

Environmental Sites Decision Document

Final

June 2005

U.S. Army Garrison Fort Greely P.O. Box 31310 Fort Greely, Alaska 99731

ENVIRONMENTAL SITES DRAFT FOR PUBLIC COMMENT DECISION DOCUMENT Fort Greely, Alaska

June 2005

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ENVIRONMENTAL SITES DECISION DOCUMENT FORT GREELY, ALASKA

1. PURPOSE

This decision document summarizes the results of many Fort Greely, Alaska (FGA) environmental investigations and remediation projects at sites that are no longer active. The sites are broken down into 3 general categories:

- Non-sites (generally, sites that never have been contaminated)
- No Further Action (NFA) sites
- No Further Remedial Action Planned (NFRAP) sites

This decision document details the current status of each closed site in attached fact sheets that shall serve as a component of this document (Attachments 1, 2, and 3). This document shall serve as a reference for future work and address concerns about past practices at FGA. The active sites are not included in the decision document because further actions are required and this decision document only addresses sites that are considered "closed."

This decision document shall serve as an agreement between Fort Greely, the Alaska Department of Environmental Conservation (ADEC) and the U.S. Environmental Protection Agency (USEPA). Many of these sites are already documented as closed with ADEC or the USEPA, but this document also serves as an environmental cleanup transition document between US Army Alaska (USARAK) and US Army Space and Missile Defense Command (USASMDC). The document summarizes sites that ADEC, USEPA, and FGA have agreed require either no further action or no further remedial action. Subsequent decision documents will be necessary upon resolution of the active sites or if the status of any site changes based on new information.

2. BACKGROUND

USASMDC operates FGA in support of the Ground Based Midcourse Defense Joint Program Office (GMD JPO). The Missile Defense Agency (MDA) funds USASMDC to maintain the facilities and infrastructure for the development and fielding of a Ballistic Missile Defense System. In support of the GMD JPO activities at FGA, the Department of the Army directed a portion of FGA be transitioned from USARAK command to USASMDC on 1 October 2002. Under recent Army initiatives, the Installation Management Agency is responsible for base operations at Army Installations. FGA is located in the interior of Alaska, approximately 100 miles southeast of Fairbanks, Alaska, and five miles south of the City of Delta Junction on the Richardson Highway. The former FGA totaled approximately 600,000 acres in size. The current FGA, to which this decision document applies, is approximately 7,000 acres. The portions of FGA not

transferred to USASMDC are now called Donnelly Training Range and are still under the control of USARAK.

FGA has undergone a number of environmental studies and restoration activities dating back to 1978. A list of past studies is included as Attachment 4 to this document. In 1989, the first stage of the Installation Restoration Program initiated a number of investigations. The first significant study was a Preliminary Assessment (PA) conducted in 1992. Most of the sites were studied and several remediation projects were completed between 1992 and 1995. In 1995, FGA was selected for realignment under the Base Realignment and Closure (BRAC) Program. The Army subsequently declared 1,700 acres, including most of the cantonment area, surplus. FGA developed a cleanup plan to remediate the sites so that the surplus property would not pose any environmental liabilities to future occupants. BRAC-driven remediation continued through 2002, the scheduled implementation date for FGA realignment. Just prior to this date, the Department of the Army decided to retain previously identified surplus property at FGA and directed the current footprint be transitioned to USASMDC.

FGA re-started the Installation Restoration Program (IRP) following the transfer from USARAK. FGA gathered the environmental studies and reports from the various agencies and companies who participated in remediation efforts. In June of 2003, FGA organized a meeting with past and current environmental personnel to list all sites where there was suspected or confirmed contamination. A list of 132 sites was developed originating from examination of all BRAC parcels, the U.S. Environmental Protection Agency's Solid Waste Management Units (SWMU) list, the ADEC Contaminated Sites Program database, and the Army Environmental Database (AEBD-R). The participants at this meeting included personnel from the following organizations:

USEPA
ADEC – Contaminated Sites Program
U.S. Army Corps of Engineers (USACOE) – Alaska District
USARAK – Environmental Office
Fort Greely Environmental Office
USASMDC Environmental Office
Artic Slope Combined Group (also called Artic Slope Technical Services)
Midwest Environmental Consultants
Teledyne Solutions, Inc. (TSI)
EDAW Corporation

An environmental fact sheet was produced for each unique site as a result of the June 2003 meeting and follow-on research. The facts sheets were placed into the appropriate categories mentioned earlier. The USEPA and ADEC have reviewed and commented on all fact sheets and the sheets have been updated to reflect current knowledge. A status review meeting between FGA, ADEC, and

USEPA on December 3, 2004 in Anchorage, Alaska reviewed each site and categorized the sites as presented in this document.

The fact sheets reference many different investigation and remediation reports and the actual results of some of those studies are presented. To preserve the original data, the fact sheets will use the same units as the referenced material. Concentrations of contaminants are presented in both parts-per-million (ppm) and milligrams per kilogram (mg/kg). These units can be used interchangeably for soil and groundwater analysis. The attached fact sheets for the closed sites are presented in the order as described below.

3. NON-SITES

A non-site is defined for this document to be a location where contamination was wrongly suspected or non-regulated. A non-site can also be a general location as referenced in the BRAC Environmental Baseline Survey. These large areas of land contain specific sites that are addressed as individual sites. A total of 43 locations are classified as non-sites. Fact sheets in Attachment 1 describe the reasons for initial concern and provide information that documents why the locations should never have been considered sites. A list of non-sites follows.

Site Name	BRAC Parcel ID	Site Name	BRAC Parcel ID
South Undeveloped Area	1	Bldg 339	69
Family Housing	2	Bldg 512	70
Family Housing	3	Northeast Undeveloped Area	81
Ammunition Storage Point	4 - 27	Bldg 400	83
Northwest Undeveloped Area	28	Old Post Area	91
Admin/Industrial Area	33	Bldg 140	93
Bldg 508	34	Bldg 161	95
CRTC Warehouse, Bldg 601	35	Drum Storage Area	117
Bldg 622	36	Bldg 606 Wash Rack	120
Bldg 603	37	AST Various	-
Bldg 604	38	Bldg 319 UST 421	-
Storage Area near Bldg 608	40	Bldg 328 UST 424	-
Bldg 610	42	BLDG 627 UST 444	-
Bldg 635	43	Bldg 639	-
Alaska Cable Office	44	Collapsed Barracks	-

Note: Table continued on next page

Non-Sites			
Site Name	BRAC Parcel ID	Site Name	BRAC Parcel ID
Bldg 619 Fuel Spill	50	General FTG Investigations	-
Mid Post	59	Landfill #8	-
Bldg 322	60	Lead Based Paint RA	-
Bldg 361	61	Ordnance and Hazmat Storage	-
Bldg 351	65	Skeet Range	-
Bldg 327	67	Sludge Drying Beds	-
Bldg 364	68		

4. NO FURTHER ACTION SITES

FGA's past remediation efforts have eliminated the risk of exposure at several sites. These formerly contaminated sites are considered closed and will remain that way unless circumstances at the sites change. These sites are called No Further Action (NFA) Sites and have no restrictions on future land use. The fact sheets for the 21 NFA sites on FGA are contained in Attachment 2 and are listed below.

No Further Action (NFA)	Sites		
Site Name	BRAC Parcel ID	Site Name	BRAC Parcel ID
Bldg 601 Freight Section	46	Air Curtain Incinerator	82
Transformer Storage Area	49	Aeration Pad North	86
Bldg 602 Fuel Spill	51	Aeration Pad South	87
Bldg 627 Drum Storage Site	52	Bldg 601Dump Site	115
Bldg 650 PCB Storage	53	Alyeska Fuel Spill	119
Chemical Test Facility	56	Field between POL Facility and Bldg 615	131
Bldg 348	63	Building 133 UST 410	-
Bldg 349	64	Bldg 510 UST 431	-
Bldg 216	71	Classified Documents Burn Cage	
Bldg 319 Fuel Spill	74	Drum Cache 2002	-
Bldg 318 Pesticide Storage	78		

5. NO FURTHER REMEDIAL ACTION PLANNED SITES

A number of sites on FGA have low-level contamination but do not require further clean up. These sites are considered conditionally closed and no further remedial action is anticipated unless circumstances at the sites change. These sites are called No Further Remedial Action Planned (NFRAP) sites. Administrative Controls (ACs) are placed on NFRAP sites to limit certain types of usage. ACs limit activities at the site that might lead to exposure to the contaminants. Types of ACs include limited/restricted access, signage, restrictions of water supply well installation, industrial land use only restrictions (no residential use), and digging restrictions. Attachment 3 contains the 9 NFRAP sites with ACs. The NFRAP sites will be included in FGA's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying future contractors, workers, and base personnel of the potential for contamination to exist at the sites. The Dig Permit process will be used to make notification of the presence of underground storage tanks (USTs) or contamination and prevent disturbance if possible. If future land disturbance activities at the site encounter contamination, the contaminated material will be properly remediated or disposed of in accordance with applicable regulations. For most NFRAP sites, the locations within the site with low-level contamination are documented. For other sites where the exact area of concern is not known, such as undocumented former UST locations, a much larger AC area is indicated to compensate for any uncertainty. The AC reference map used for issuing dig permits is contained in Attachment 5. The NFRAP sites are listed below.

No Further Remedial A	action Planned (NFRAP)	Sites	
Site Name	BRAC Parcel ID	Site Name	BRAC Parcel ID
World War II Tent Site	114	Landfill #7	-
Bldg 501 USTs	-	Station 20 + 70 POL Site	-
Bldg 605 CRTC	-	Station 24 + 00 POL Site	-
Landfarm	-	Station 9 + 50 POL Site	-
Landfill #6	-		

6. OTHER SITES

The fact sheets for the known sites that are not considered closed are available at http://www.smdcen.us/rabfga/pages/factsheets-mar05.aspx. Subsequent decision documents will address these sites. A complete list of all sites (with cleanup status and each sites' state planer coordinates) is included in Attachment 6. These sites as well as the closed sites are shown in the maps in Attachment 5.

7. PUBLIC / COMMUNITY INVOLVEMENT

A Restoration Advisory Board (RAB) was formed in 1996 and has been active in restoration activities. The RAB meets quarterly and has reviewed this Decision Document. All fact sheets were made available to the RAB members for comments. FGA maintains a RAB public website (containing the fact sheets) at: http://www.smdcen.us/rabfga/. This document was released for public comment with announcements appearing in the Delta Wind and the Fairbanks Daily News-Miner on or about March 24, 2005. Comments were accepted until April 30, 2005. One set of comments was received during this period. The comments were addressed and clarifications have been made. The final version of this document will be available in the Delta Junction Public Library.

8. DECLARATION

The selected status for each site is protective of human health and the environment, attains federal and state requirements that are applicable or relevant and appropriate to those sites, and is cost effective. FGA selected these courses of action with support from USEPA Region 10 and the ADEC – Contaminated Sites Program in Fairbanks, AK. In accordance with 18 AAC 75.380(d)(1) and 18 AAC 78.276, additional investigation and cleanup may be required if new information is discovered which leads the ADEC or FGA to determine that the investigation described in this decision is inadequate or this ruling is not protective of human health, safety, and welfare or the environment.

A list of documents referenced or reviewed in preparing the decision document can be found in Attachment 4.

9. APPROVALS AND SIGNATURES

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The selected courses of action for the sites as described in the fact sheets are:

APPROVED BY:

Robert E. Cornelius

Lieutenant Colonel, U.S. Army

Garrison Commander

CONCURRED BY:

Jennifer Roberts

ADEC

Contaminated Sites Program

Section Manager

AND

Jacques Gusmano USEPA, Region 10

Anchorage Office

ATTACHMENT

1

NON-SITES FACT SHEETS

C Parcel ID	BR	Site Name	BRAC Parcel ID	Site Name
69		Bldg 339	1	South Undeveloped Area
70		Bldg 512	2	Family Housing
81	ea	Northeast Undeveloped Area	3	Family Housing
83 91		Bldg 400	4 - 27	Ammunition Storage Point
		Old Post Area	28	Northwest Undeveloped Area
93		Bldg 140	33	Admin/Industrial Area
95		Bldg 161	34	Bldg 508
117		Drum Storage Area	35	CRTC Warehouse, Bldg 601
120		Bldg 606 Wash Rack	36	Bldg 622
-		AST Various	37	Bldg 603
-		Bldg 319 UST 421	38	Bldg 604
-		Bldg 328 UST 424	40	Storage Area near Bldg 608
-		BLDG 627 UST 444	42	Bldg 610
-		Bldg 639	43	Bldg 635
-		Collapsed Barracks	44	Alaska Cable Office
-	5	General FTG Investigations	50	Bldg 619 Fuel Spill
-		Landfill #8	59	Mid Post
-		Lead Based Paint RA	60	Bldg 322
-	age	Ordnance and Hazmat Storage	61	Bldg 361
-		Skeet Range	65	Bldg 351
-		Sludge Drying Beds	67	Bldg 327
	rage	Skeet Range	65	Bldg 361 Bldg 351



SOUTH UNDEVELOPED AREA FORMER BRAC PARCEL 1 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as South Undeveloped Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 1. The site is not listed in known environmental databases.

This BRAC site consists of approximately 601.1 acres of forested land, gravel roadways and the Building 550 (guard shack at main gate). The Alyeska pipeline passes through the northwest corner of the South Undeveloped Area.

2.0 SITE LOCATION

The site occupies the southern extent of the former BRAC property generally south of Big Delta Avenue and Arctic Avenue, east of the Alyeska pipeline, west of the Ammunition Storage Point and Jarvis Creek, and north of the southern extent of former BRAC property.

Former BRAC Parcel 114, known as the "World War II Tent Site (World War II Test Area)", is located within the boundaries of the South Undeveloped Area. Former BRAC Parcel 114 is addressed under a separate fact sheet and is not considered part of the South Undeveloped Area for purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Section 3.3.1, page 3-3).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 1 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as:

Areas where no storage for one year or longer, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists for the release, disposal, or migration of substances or petroleum products;



however, the area has been used to store less than reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gallons of petroleum products.

According to EBS Table 5-1a and Table 2-1, Woodward-Clyde conducted interviews, visual inspection, and review of aerial photographs. Per Table 2-5, visual survey was conducted by automobile; from this it was indicated in the EBS that no remediation is necessary.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site. Note that former BRAC Parcel 114 is addressed separately in a different fact sheet.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the South Undeveloped Area, former BRAC Parcel 1.

FAMILY HOUSING FORMER BRAC PARCEL 2 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Family Housing located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 2. The site is not listed in known environmental databases.

This site consists of approximately 57 acres containing 95 buildings for military personnel housing and associated utilities. The Delta School is located between the Family Housing Geographic Area and the South Undeveloped Geographic Area. Fifteen acres of the main cantonment area are out-granted to the Delta Greely School District.

2.0 SITE LOCATION

The site is located within the main Fort Greely cantonment area and consists of the developed area located south of Big Delta Avenue.

Former BRAC Parcel 3, also known as "Family Housing," is located within the boundaries of Parcel 2. Parcel 3 is addressed under a separate fact sheet and is not considered part of Parcel 2 for the purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97), U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Section 3.3.2, page 3-3) (Table 3-1, page 3-3).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 2 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as:

Areas where no storage for one year or longer, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists of the release, disposal, or migration of substances or petroleum products;



however, the area has been used to store less-than-reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gallons of petroleum products.

According to EBS Table 5-1a and Table 2-1, Woodward-Clyde conducted interviews, and performed visual inspections and reviews of aerial photographs. The EBS indicated no remediation is necessary.

Note that asbestos and lead-based paint are known to exist in some buildings.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site. Asbestos and lead issues will be managed by existing Army programs.

FAMILY HOUSING FORMER BRAC PARCEL 3 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Family Housing located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 3. The site is not listed in known environmental databases.

This site consists of a gasoline spill location at Building 864-B.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 190545, Easting 201997.
- <u>Physical Address</u>: The site is located at Building 864-B. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn south on Third Street. Travel south 1,600 ft. Building 864-B is on the right.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (Aug 1991) Spill Report, Building 864B.
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1, Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

A 5-gal gasoline spill was reported on August 5, 1991. The spill was cleaned up with sorbents.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 3 as a Community Environmental Response Facilitation Act (CERFA) Category 4 parcel. Category 4 was defined as follows:



Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and all removal or remedial actions to protect human health and the environment have been taken.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing a spill report. No additional remediation was indicated.

3.3 Summary of Remaining Contamination

No remaining contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information and cleanup conducted, no further investigation will be conducted to address this site.

AMMUNITION STORAGE POINT FORMER BRAC PARCELS 4 THROUGH 27 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as the Ammunition Storage Point (ASP) located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcels 4 through 27. The site is not listed in known environmental databases.

The ASP is double-fenced and contains 12 buildings and 13 concrete pads. The site occupies a total area of approximately 105 acres. The site is used to store ammunition.

2.0 SITE LOCATION

The site is located at the eastern extent of the former BRAC property, at the east end of East Post Road, east of the main cantonment area and west of Jarvis Creek.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 4 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:

Areas where no storage (for 1 year or longer), release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists of the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less-than-reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gal of petroleum products.

The EBS listed Parcels 5 through 27 CERFA Category 2 parcels. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

According to EBS Table 5-1a and Table 2-1, Woodward-Clyde conducted interviews, and performed visual inspections and reviews of aerial photographs. The EBS indicated that no remediation is necessary.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

NORTHWEST UNDEVELOPED AREA FORMER BRAC PARCEL 28 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as the Northwest Undeveloped Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 28. The site is not listed in known environmental databases.

This approximately 400-acre area consists mostly of forested land. The northern part of the site remains cleared because it is located just southwest of the Allen Army Airfield. Some of the former buildings at the Old Post were located in this area. Some concrete foundations are present in this area. Photographs confirm that several buildings were located here in the 1950s and 1960s. The site currently contains baseball fields, tennis courts, and a hockey rink. The Alyeska Pipeline runs through the west side of this area.

2.0 SITE LOCATION

The site is located along the western side of the former BRAC property, north of the South Undeveloped Area. This area is bounded by the Richardson Highway on the west, Big Delta Avenue on the south, the Allen Army Airfield on the north, and the developed areas of the central cantonment on the east.

The following separate sites are located within the boundaries of the Northwest Undeveloped Area: former BRAC Parcels 29, 30, 31, 32, 112, 113, 117, 118, and 119. These separate sites are addressed under separate fact sheets and are not considered part of the Northwest Undeveloped Area for the purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Section 3.3.4, page 3-6, and Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the



installation. The EBS listed Parcel 28 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:

Areas where no storage (for 1 year or longer), release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists for the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less-than-reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gal of petroleum products.

Note this site does not include the separate, specific BRAC parcels within the area (listed above); those sites are addressed separately. According to EBS Table 5-1a and Table 2-1, Woodward-Clyde conducted interviews, and performed visual inspections and reviews of aerial photographs. The EBS indicated no remediation is necessary.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site beyond those addressed by individual fact sheets for BRAC Parcels 29, 30, 31, 32, 112, 113, 117, 118, and 119.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the Northwest Undeveloped Area, former BRAC Parcel 28.

ADMIN/INDUSTRIAL AREA FORMER BRAC PARCEL 33 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as the Admin/Industrial Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 33. The site is not listed in known environmental databases.

The Admin/Industrial Area includes approximately 11 acres containing many of the current administration and industrial facilities at Fort Greely. Forty-seven buildings are located in this area. Industrial activities include fuel storage, power and heat generation, vehicle maintenance, and wastewater treatment. An SM-1A nuclear reactor was in operation here from 1963 to 1973. The reactor was decommissioned in 1973.

2.0 SITE LOCATION

The site is located in the central part of the former BRAC property, north of the Family Housing Area. This area is bounded by First Street on the west, East Post Road and 22-Mile Loop Road on the east, Big Delta Avenue on the south, and the former SM-1A pipeline location on the north.

The following separate sites are located within the boundaries of the Admin/Industrial Area: former nuclear reactor, former BRAC Parcels 53, 111, 115, 46, 37, 51, 38, 45, 54, 55, 44, 43, 47, 52, 42, 130, 48, 39, 40, 41, 57, 56, 58, 131, 120, 35, 49, 34, 36, 50, 70, 132, and SM-1A Pipeline locations 9+50, 20+70, 21+25, and 24+00. These separate sites are addressed under separate fact sheets and are not considered part of the Admin/Industrial Area for purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Section 3.3.5, page 3-7, and Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the



installation. The EBS listed Parcel 33 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:

Areas where no storage (for 1 year or longer), release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists for the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less-than-reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gal of petroleum products.

As a result, no further investigation was conducted under BRAC. According to EBS Table 5-1a and Table 2-1, the site was evaluated by interviews, visual inspection, and aerial photograph analysis.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site. Note, however, that this does not address the separate BRAC parcels located within the boundaries of the Admin/Industrial Area (listed above) that are addressed under separate fact sheets.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the Admin/Industrial Area, former BRAC Parcel 33.

BUILDING 508 FORMER BRAC PARCEL 34 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 508 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 34. The site is not listed in known environmental databases.

Building 508 is a 3,489 ft² building located inside the Admin/Industrial Geographic Area. Building 508 is located inside the Resources & Utilities Yard and has been used for material storage.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 193663, Easting 201810.
- <u>Physical Address</u>: The site is located at the Resources & Utilities Yard, North of Shaw Avenue, East of First Street, West of the POL Facility.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. CH2M Hill (Dec 1992) Preliminary Assessment, Fort Greely, Alaska (pages 3-23 through 3-25)
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a, Table 2-1 and Table 3-3, page 3-7).

3.2 Description of Site Characterization and Remedial Actions

The Building 508 area was discussed in the Preliminary Assessment under the Building 601 (Resources and Utilities Yard) section.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 34 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The EBS indicated morpholine and cyclohexylamine (boiler scale cleaners), dry cleaning solvent, and POL were stored at Building 508. According to EBS Table 5-1a and Table 2-1, the site was evaluated by interviews, visual inspection, and aerial photograph analysis. There was no documented evidence of release. No remedial actions have been conducted. No additional information has become available subsequent to the EBS.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

CRTC WAREHOUSE, BUILDING 601 FORMER BRAC PARCEL 35 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Cold Regions Test Center (CRTC) Warehouse, Building 601, located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 35. The site is not listed in known environmental databases.

Building 601 (CRTC Warehouse) is located in the Admin/Industrial Area. The building is 114,082 ft², and has been used for storage and as a commissary. The Environmental Baseline Survey (EBS) indicated a 1,000-gal fuel oil Aboveground Storage Tank (AST) was located at the CRTC warehouse.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Grid: Northing 193590, Easting 201589.
- <u>Physical Address</u>: Building 601 CRTC Warehouse. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Site is located at the northeast corner of the intersection of First Street and Shaw Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-3, page 3-7).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an EBS was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 35 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The EBS indicated a 1,000-gal fuel oil AST was located at the CRTC warehouse; the location was not indicated. According to EBS Table 5-1a and Table 2-1, the site was evaluated by interviews, visual inspection, and aerial photograph analysis. There has been no documented evidence of release at the site.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 622 FORMER BRAC PARCEL 36 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 622 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 36. The site is not listed in known environmental databases.

Building 622 is located inside the Admin/Industrial Geographic Area. This building is 216 ft² and has been used for storage of hazardous materials and hazardous waste. The Building is operated by the Department of Public Works (DPW).

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Grid: Northing 193637, Easting 202042.
- Physical Address: Building 622. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Turn north on the road between the fenced storage compound and the Petroleum, Oil, and Lubricants (POL) facility. Building 622 is on the east side of the road adjacent to the POL facility fence.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-3, page 3-7).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 36 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by interviews, visual inspection, and aerial photograph analysis. There has been no documented evidence of a release. A second round of interviews indicated all quantities of hazardous material were stored inside this facility and the quantities were usually in the 1 to 3 gallon range per material.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 SITE STATUS AND REMEDY

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 603 FORMER BRAC PARCEL 37 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 603 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 37. The site is not listed in known environmental databases.

Building 603 is a 13,518 ft² building operated by the Department of Public Works (DPW) for offices and building maintenance.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Grid: Northing 192960, Easting 201835.
- <u>Physical Address</u>: Building 603. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. After 400 ft, turn south into gravel parking area located north of Building 603.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. ADEC (Oct 1987) RCRA Hazardous Waste Management Compliance Evaluation Inspection Report
- 2. ADEC (Aug 1988) RCRA Hazardous Waste Management Compliance Evaluation Inspection Report
- 3. U.S. Army (Oct 1994) Hazardous Chemical Inventory, Level One
- 4. Emcon (Jan 1995) Fort Greely Community Right-to-Know Submittal, Tier Two Report
- 5. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 2-1, Table 5-1a, Table 3-3 Page 3-7).



3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 37 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

The building was used for storage of hazardous materials including paint, solvents, glycol, motor oil, and corrosives. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated 1987-1995. A second round of interviews indicated all quantities of hazardous material were stored inside this facility.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 604 FORMER BRAC PARCEL 38 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 604 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 38. This site is not listed in known environmental databases.

Building 604 is a 3,920 ft² building used for building maintenance activities.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Grid: Northing 192954, Easting 201948.
- <u>Physical Address</u>: Building 604. Drive east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Drive 500 ft. Turn south into parking area located south of Building 604.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (unknown) Hazardous Materials Inventory, Buildings 603 and 604.
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1 Page 2-2, Table 5-1a, Table 3-3 Page 3-7).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 38 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The building has been used for storage of hazardous materials including paint, paint thinner, lubricants, and corrosives. There has been no documented evidence of release. According to



EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing an undated hazardous materials inventory. A second round of interviews indicated all quantities of hazardous material were stored inside this facility and the quantities were usually in the 1 to 3 gallon range per material.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 SITE STATUS AND REMEDY

Based on the available information, no further investigation will be conducted to address this site.

STORAGE AREA NEAR BUILDING 608 FORMER BRAC PARCEL 40 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as the Storage Area Near Building 608 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 40. The site is not listed in known environmental databases.

This site is a storage area associated with Building 608 and is operated by the Cold Regions Test Center (CRTC). Storage of hazardous material occurs at a hazardous materials building and at a fenced, bermed enclosure near Building 608. Materials include contaminated fuel and solvents associated with the printing machinery in Building 612.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Grid: Northing 193169, Easting 202765.
- <u>Physical Address</u>: Drive east on Big Delta Avenue. Turn north on East Fifth Street. Travel 800 ft north. Storage area is to the west on opposite side of the fence.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 40 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The EBS indicated the site has been used for storage of hazardous materials, including contaminated fuel and solvents. There has been no documented evidence of a release.



According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing an undated hazardous materials inventory.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 610 FORMER BRAC PARCEL 42 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 610 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 42.

The following database identification applies to this site:

• Solid Waste Management Unit (SWMU) – SWMU-28.

Building 610 is a 5,566 ft² building used as the former Information Management/ Photography location. Building 610 was previously used for photo developing. The photographic lab was identified as SWMU No. 28.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 192929, Easting 202571.
- <u>Physical Address</u>: Building 610. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Arctic Avenue. Travel east 1200 ft, turn north toward Building prior to East Fifth Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (Jan 1990) RCRA Facility Assessment PR/VSI Report
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1 Page 2-2, Table 5-1a, Table 3-3 Page 3-7).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 42 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The EBS indicated the building was used as a photographic lab. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

SWMU No. 28 will be closed. Based on the available information, no further investigation will be conducted to address this site.

BUILDING 635 FORMER BRAC PARCEL 43 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 635 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 43. The site is not listed in known environmental databases.

Building 635 is a 4,039-ft² building used as the former Meteorological Lab for Cold Regions Test Center Alaska (CRTCA). Four Polychlorinated Biphenyl (PCB)-containing transformers were stored in Building 635 from 1982 to 1984. Four drums of potentially PCB-contaminated material were also stored at this facility.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193066, Easting 204139.
- <u>Physical Address</u>: Building 635. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Arctic Avenue. Travel east 1,000 ft. Turn north on gravel drive to Building 635.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. AGRA Earth & Environment, Inc. (Mar 1995) Final Site Investigation Letter Report
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a, Table 3-3 Page 3-8, Table 2-1, Page 2-3).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 43 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The EBS indicated the building was used as a Transformer Storage Building for 2 years. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. A second round of interviews indicated all quantities of hazardous material were stored inside this facility and the quantities were usually in the 1 to 3 gallon range per material.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

ALASKA CABLE OFFICE FORMER BRAC PARCEL 44 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Alaska Cable Office located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 44. The site is not listed in known environmental databases.

Building 635 is the former Alaska Cable Office. A 660-gal fuel oil tank is located at the site.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 192701, Easting 204091.
- <u>Physical Address</u>: Alaska Cable Office. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Arctic Avenue. Travel east 1,300 ft. Site is on south side of the road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 5-1a).

USACE (20 May 2004) Class V Underground Injection Control Engineers Assessment and Inventory Report (Section 3.4.1 and Table 8).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 44 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gal has occurred, but no release, disposal, or migration has occurred.

The EBS indicated the building was used as the Alaska Cable Office. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was



evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

The septic system will be permitted to comply with EPA's UIC Program.

BUILDING 619 FUEL SPILL FORMER BRAC PARCEL 50 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 619 Fuel Spill located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 50. The site is not listed in known environmental databases.

In 1984, a 100-gal spill of motor gasoline was reported. The Environmental Baseline Survey (EBS) associated this spill with Building 619; however, investigation work conducted in 1997 determined the spill actually occurred at Building 617.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193378 approximate, Easting 202153 approximate.
- Physical Address: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Travel east on Shaw Avenue approximately 700 ft. Building 617 is inside the fenced POL Facility north of Shaw Avenue. Building 619 is in the northeast corner of the intersection of Shaw Road and the POL Facility access road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. USACE (June 1993) Oil Discharge Prevention and Contingency (ODPC) Plan, Fort Greely
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a)
- 3. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation (pages 7-20, and 7-21).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an EBS was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed



Parcel 50 as a Community Environmental Response Facilitation Act Category 6 parcel. Category 6 was defined as follows:

Areas where storage, release, disposal or migration of hazardous substances or petroleum products has occurred, but required removal or remedial actions have not yet been initiated.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

Subsequent investigation in 1997 determined that the spill actually occurred at Building 617, not Building 619. Building 617 was not slated for transfer under BRAC; therefore, further investigation was not conducted under BRAC. For more information see the fact sheet for the non-BRAC site known as "Building 617 Fuel Spill and POL Facility."

3.3 Summary of Contamination

In 1984, a 100-gal spill of motor gasoline was reported. The EBS associated this spill with Building 619; however, investigation work conducted in 1997 determined the spill actually occurred at Building 617.

4.0 STATUS

Because the subject fuel spill occurred at Building 617 instead of at Building 619, the subject site known as Building 619 Fuel Spill will be closed in order to avoid further confusion. No further investigation will be conducted at Building 619 associated with this fuel spill. Investigation of the POL Facility is discussed as "Building 617 Fuel Spill and POL Facility."

MID POST GEOGRAPHIC AREA FORMER BRAC PARCEL 59 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as the Mid-Post Geographic Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 59. The site is not listed in known environmental databases.

The Mid-Post Geographic Area includes 23 existing buildings. Many more buildings were located here in the past. The remaining buildings are not connected to a central heating system, and therefore depend on fuel oil for heat. Because of this, aboveground and underground storage tanks have been used. Most of the buildings are used for storage, but some vehicle maintenance occurs in several of the buildings.

2.0 SITE LOCATION

The site is located in the central part of the former BRAC Property. The area is bounded by the former location of the SM-1A pipeline on the south, Robin Road on the west, Old Post on the north, and the Northeast Undeveloped Area on the east.

The following separate sites are located within the boundaries of the Mid Post Geographic Area: former BRAC Parcels 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 74, 75, 76, 77, 78, 79, 80, and 116. These separate sites are addressed under separate fact sheets and are not considered part of the Mid Post Geographic Area for purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Section 3.3.6, pages 3-7 & 3-8, and Tables 3-4 & 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 59 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:



Areas where no storage for one year or longer, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists for the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less than reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gallons of petroleum products.

As a result, no further investigation was conducted under BRAC. According to EBS Table 5-1a and Table 2-1, the site was evaluated by interview, visual inspection, and aerial photograph analysis. Note this site does not address the other separate parcels located within this area that were investigated under BRAC.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site beyond those addressed by individual fact sheets for BRAC Parcels 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 74, 75, 76, 77, 78, 79, 80, and 116.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the Mid Post Geographic Area, former BRAC Parcel 59.

BUILDING 322 FORMER BRAC PARCEL 60 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 322 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 60. The site is not listed in known environmental databases.

Building 322 was a 2,288-ft² Quonset-style building used as the former Army National Guard (ARNG) Storage building. A 1,000-gal heating oil Underground Storage Tank (UST) was removed at Building 322 and replaced with a 300-gal double-walled heating oil Aboveground Storage Tank (AST). The building and AST have been removed.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195423, Easting 200754.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Travel approximately 400 ft east and turn north into the gravel driveway of the site. Building 322 is a Quonset-style storage building with a fenced storage compound.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-4, page 3-9).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 60 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

There has been no documented evidence of release. Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

3.3 Summary of Contamination

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been discovered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Cleanup Levels

The UST was removed from the site in accordance with procedures in effect at the time for heating oil tanks. The UST was used to store diesel heating oil, but no evidence of release was documented during the removal of the UST.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 322, former BRAC Parcel 60.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations. A large conservative AC area is enforced by FGA that covers all possible locations of the former UST.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

BUILDING 361 FORMER BRAC PARCEL 61 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 361 located at Fort Greely, Alaska. This site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 61. This site is not listed in known environmental databases.

Building 361 is a 1,923-ft² building used as telephone utility storage. A 1,000-gal capacity heating oil Underground Storage Tank (UST) was removed and a 1,000-gal heating oil Aboveground Storage Tank (AST) was subsequently installed.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195084, Easting 200914.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Travel east approximately 800 ft. The site is located on the south side of East Post Road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-4, page 3-9).
- 2. Fort Greely DPW Tank File for Tank #428 at Building 361.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 61 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:



Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

The EBS indicated the building was used for storage. There has been no documented evidence of release. Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

Review of the Fort Greely DPW Tank Files indicates UST #428 was previously located at this site. UST #428 was a 1,000-gal capacity heating oil tank. The tank was tightness tested on 13 August 1987 and found to not be leaking. The tank was removed in 1995 and subsequently replaced with a 1,000-gal capacity heating oil AST. The tank was apparently removed in accordance with regulations and/or procedures in effect at the time of the removal. No documentation of sampling was found.

3.3 Summary of Contamination

A heating oil UST was removed from the site. The UST was used to store diesel heating oil and there is no evidence of a release.

3.4 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been encountered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 361, former BRAC Parcel 61.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations. A large conservative AC area is enforced by FGA that covers all possible locations of the former UST.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

BUILDING 351 FORMER BRAC PARCEL 65 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 351 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 65. The site is not listed in known environmental databases.

Building 351 is a 1,027-ft² former electronics shop. The building uses a 1,000-gal heating oil AST.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 194644, Easting 201027.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Travel north to the T intersection. The fenced compound is across the road to the north. The subject building is on the west side of the fenced compound.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-4, page 3-9).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 65 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.



The EBS indicated the building was used as an electrical shop. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

Note that three soil borings were drilled at Building 351 in 1998 (AP-902, AP-903, and AP-904) to investigate a fuel spill. That spill and investigation are addressed under a separate fact sheet as "Building 351 Fuel Spill, BRAC Parcel 76."

3.3 Summary of Remaining Contamination

No contaminants of concern are known to have been released at this site associated with the electronic shop; the fuel spill is addressed separately as former BRAC parcel 76.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 327 FORMER BRAC PARCEL 67 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 327 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 67. The site is not listed in known environmental databases.

Building 327 was used as a paint shop.

2.0 SITE LOCATION

The site is located in the Mid-Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195086, Easting 201498.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Travel north to the T intersection. Turn west at the intersection, then north around the west side of the fenced compound. Turn east on East Post Road. Travel east approximately 500 ft. Site is on the north side of road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. USACE, Alaska District (Aug 1968) Analysis of Existing Facilities
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1, Table 5-1a, Table 3-4).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 67 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.



The EBS indicated the building was used as a paint shop. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 364 FORMER BRAC PARCEL 68 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 364 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 68. The site is not listed in known environmental databases.

Building 364 was used for paint storage.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195506, Easting 201441.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Travel north to the T intersection. Turn west at the intersection, then north around the west side of the fenced compound. Turn east on East Post Road. Travel east approximately 500 ft and turn north. Cross Pine Road and travel north 400 feet to site on the west side of road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. USACE Alaska (August 1968) Analysis of Existing Facilities
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1, Table 5-1a, Table 3-4).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 68 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.



The EBS indicated the building was used for paint storage. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 339 FORMER BRAC PARCEL 69 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 339 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 69. The site is not listed in known environmental databases.

Building 339 is a 2,400-ft² building used as Warm Storage for Family Housing. Building 339 utilizes a double-walled 1,000-gal Aboveground Storage Tank (AST) for fuel oil storage.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 194657, Easting 201977.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Turn right on Butternut Road. Site is the middle building on the west side of the road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-4, page 3-9).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 69 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. The EBS classified this site as a Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.



The EBS indicated the building was used for Warm Storage. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 512 FORMER BRAC PARCEL 70 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 512 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 70. The site is not listed in known environmental databases.

Building 512 is a 2,400-ft² building used for storage. A 1,000-gal fuel oil Aboveground Storage Tank (AST) is located at the building.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193998, Easting 201851.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Turn north on the road between the Petroleum, Oil, and Lubricants (POL) facility and the fenced storage yard. Travel approximately 600 ft north. Site is on the west side of the road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a and Table 3-3, page 3-7).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 70 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.



According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

NORTHEAST UNDEVELOPED AREA FORMER BRAC PARCEL 81 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Northeast Undeveloped Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 81. The site is not listed in known environmental databases.

This area is located in the northeastern area of the cantonment. The area is mostly forested and contains several facilities with road access. Facilities in this area include a ski hill and a skeet range. Fire Training was conducted at two locations in the past. The sewage lagoon, drying beds, and solid waste burn pit are located in this area. A formerly used nuclear waste pipeline and dilution well, which were operational from 1962 to 1967, were located in this area.

2.0 SITE LOCATION

The site occupies the northeastern area of the former BRAC property, north of the Admin/Industrial Area and east of the Mid-Post and Old Post areas. The area is bounded by Jarvis Creek on the east.

The following separate sites are located within the boundaries of the Northeast Undeveloped Area: former BRAC Parcels 82, 83, 84, 85, 86, 87, 88, 89, 90, 133, and part of 73, and the skeet range. These separate sites are addressed under separate fact sheets and are not considered part of the Northeast Undeveloped Area for purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Section 3.3.7, pages 3-9 & 3-10, and Tables 3-5 & 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 81 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:



Areas where no storage for one year or longer, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists for the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less than reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gallons of petroleum products.

As a result, no further investigation was conducted under BRAC. According to EBS Table 5-1a and Table 2-1, the site was evaluated by interview, visual inspection, and aerial photograph analysis.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to have been released at this site. Note this does not apply to the separate BRAC parcels and skeet range located within the Northeast Undeveloped Area, which are addressed under separate fact sheets (sites listed above).

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the Northeast Undeveloped Area, former BRAC Parcel 81.

BUILDING 400 FORMER BRAC PARCEL 83 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 400 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 83. The site is not listed in known environmental databases.

Building 400 was the lodge at the Fort Greely ski hill. A heating oil Underground Storage Tank (UST) was previously located at the site that was removed and replaced with a 1,000-gal heating oil Aboveground Storage Tank (AST) on the south side of Building 400. Building 400 and the AST have been removed.

2.0 SITE LOCATION

The site is located in the Northeast Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 196436, Easting 203759.
- Physical Address: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on Evergreen Road. Travel east on Evergreen Road, crossing through the intersection with Butternut Road. Continue east, then south on Evergreen Road until reaching the ski hill. The site is at the ski chalet.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a)
- 2. Tank File for Tank 429 at Building 400.

3.2 Description of Site Characterization and Remedial Actions

UST No. 429, a 500-gal heating oil tank, was located at Building 400 and was tightness tested on 13 August 1987 and found to be tight. The tank was replaced with an AST in 1994. The tank was removed in accordance with procedures in effect at the time for heating oil tanks. Contamination was not observed.



Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 83 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

The EBS indicated the building was used as a ski chalet. There has been no documented evidence of release. Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

3.3 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been discovered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

The UST was removed from the site in accordance with procedures in effect at the time for heating oil tanks. The UST was used to store diesel heating oil, but no evidence of release was documented during the removal of the UST.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 400, former BRAC Parcel 83.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations. A large conservative AC area is enforced by FGA that covers all possible locations of the former UST.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

OLD POST AREA FORMER BRAC PARCEL 91 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Old Post Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 91. The site is not listed in known environmental databases.

The Old Post Area was the original cantonment area at Fort Greely, located immediately south of the Allen Army Airfield. Several buildings still exist at this area. Only buildings 106, 144, and 162 were previously subject to transfer under BRAC. Building 102 no longer exists. Building 160 was demolished in 1996. Aircraft storage, maintenance, refueling, and fuel storage have occurred in this area.

2.0 SITE LOCATION

The site is located in the northern portion of the former BRAC property. The area is bounded by Allen Army Airfield on the north, the Mid-Post Area on the south, the Northeast Undeveloped Area on the east, and the Northwest Undeveloped Area on the west.

The following separate sites are located within the boundaries of the Old Post Area: former BRAC Parcels 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 121, part of 73, and the Building 101 Underground Storage Tank (UST) site. These sites are addressed in included fact sheets and are not considered part of the Old Post Area for purposes of site evaluation and remedy selection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Section 3.3.7, pages 3-9 & 3-10, and Tables 3-5 & 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 91 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:



Areas where no storage for one year or longer, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence exists for the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less than reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gallons of petroleum products.

As a result, no further investigation was conducted under BRAC. Per EBS Table 5-1a and Table 2-1, the site was evaluated by interview, visual inspection, and aerial photograph analysis.

3.3 Summary of Contamination

No contaminants of concern are known to have been released at this site beyond those addressed by individual fact sheets for BRAC Parcels 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 121, part of 73, and the Building 101 Underground Storage Tank (UST) site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the Old Post Area, former BRAC Parcel 91.

BUILDING 140 FORMER BRAC PARCEL 93 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 140 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 93. This site is not listed in known environmental databases.

Building 140 previously used a 500-gal heating oil Underground Storage Tank (UST). The UST was removed and replaced with a 1,000-gal heating oil Aboveground Storage Tank (AST).

2.0 SITE LOCATION

The site is located in the Old Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 198085, Easting 200827.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn west on D Street. Turn north on 2nd Avenue. The site is east of 2nd Avenue, north of C Street and south of A Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a)
- 2. U.S. Army Tank File for Tank 411 at Building 140.

3.2 Description of Site Characterization and Remedial Actions

UST No. 411 at Building 140 was tightness tested in 1987 and was reportedly not leaking. The tank was removed in 1995 in accordance with procedures in effect at the time for heating oil tanks. Contamination was not observed. No documentation of sampling is available in the tank file.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the



installation. The EBS listed Parcel 93 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

There has been no documented evidence of release. Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

3.3 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been discovered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

The UST was removed from the site in accordance with procedures in effect at the time for heating oil tanks. The UST was used to store diesel heating oil, but no evidence of release was documented during the removal of the UST.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 140, former BRAC Parcel 93.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations. A large conservative AC area is enforced by FGA that covers all possible locations of the former UST.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

BUILDING 161 FORMER BRAC PARCEL 95 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Building 161 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 95. The site is not listed in known environmental databases.

A 3,000-gal heating oil Underground Storage Tank (UST) was removed from former Building 161.

2.0 SITE LOCATION

The site is located in the Old Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 197963, Easting 201840.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue.
 Travel east on Big Delta Avenue. Turn north on Robin Road and travel to Old Post.
 Turn east on C Street. The site is located between C Street and A Street, just west of Sixth Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Emcon (September 1994) UST Management Plan, Records Update, Final Report.
- 2. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).
- 3. U.S. Army Tank File for Tank 414 at Building 161.

3.2 Description of Site Characterization and Remedial Actions

Tank #414 was a 3,000-gal heating oil tank that was removed from Building 161 in 1988.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the



installation. The EBS listed Parcel 95 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

There has been no documented evidence of release. Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

3.3 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been discovered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

The UST was removed from the site in accordance with procedures in effect at the time for heating oil tanks. The UST was used to store diesel heating oil, but no evidence of release was documented during the removal of the UST.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 161, former BRAC Parcel 95.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

DRUM STORAGE AREA FORMER BRAC PARCEL 117 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Drum Storage Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 117. The site is not listed in known environmental databases.

According to the Environmental Baseline Survey (EBS), in a 1955 aerial photograph this site appeared to be a drum storage area.

2.0 SITE LOCATION

The site is located in the Northwest Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 192625, Easting 200491.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue.
 Travel east on Big Delta Avenue. Turn north on Robin Road and travel approximately 400 ft. The site is located in the area of the baseball field adjacent to the east side of Robin Road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (1955) Full-Sized Drawing: Copy of Aerial Photograph
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a)
- 3. Jacobs (April 1999) 1998 Remedial Investigation Report.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 117 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.



According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. As indicated above, review of a 1955 aerial photograph suggested the site was used for drum storage. The EBS recommended soil sampling.

Site 117 was evaluated further during the 1998 BRAC investigation program. Items previously interpreted as drums during the EBS aerial photograph review were determined to actually have been mounds of fill material. Indications of contamination were not identified. No invasive investigation or further work was performed.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to have been released at this site.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

BUILDING 606 WASH RACK FORMER BRAC PARCEL 120 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This Fact Sheet describes the site generally known as Building 606 Wash Rack located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 120. No database identifications apply to this site. Note that ADEC Database Identification (RecKey) – 199233X930603 CS applies to other source areas located at Building 606.

This site is not listed in the Army Environmental Database – Restoration (AEDB-R) and is not a Solid Waste Management Unit (SWMU).

This site is a reported former wash rack located north of the Power Plant Building 606 between Building 606 and the former SM-1A pipeline route.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193298, Easting 202230.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Travel approximately 800 feet east. The site is located in the gravel drive area south of the Petroleum, Oil, and Lubricant (POL) Yard and north of the Power Plant.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (Feb 1963) Full-Sized Drawing: Washrack, Drainage
- 2. SAIC (Jan 1990) RCRA Facility Assessment PR/VSI Report
- 3. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a)
- 4. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation, Fort Greely, Alaska (pages 7-27 and 7-28).



3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 120 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

During 1997, an initial site evaluation was conducted. It was determined that plans for a wash rack had been prepared, but the structure had not been built. Potential contaminants of potential concern (COPC) sources were not identified. No further action was recommended.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to have been released at this site. Note that the site is located very near the BLDG 617 POL Facility, at which an environmental investigation was conducted in the Fall of 2003. Contamination identified as part of that work within the boundaries of former BRAC Parcel 120 will be addressed under the BLDG 617 POL Facility project.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address the Building 606 Wash Rack, former BRAC Parcel 120.

ABOVEGROUND STORAGE TANKS (VARIOUS) FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Aboveground Storage Tanks (ASTs) (Various) at Fort Greely, Alaska. The following database identification applies to this site.

• Army Environmental Database – Restoration (AEDB-R) – FGLY-003

Very little information is included in the AEDB-R database regarding this site. The site appears to represent nine ASTs at Fort Greely. These tank sites are included and addressed on other fact sheets.

2.0 SITE LOCATION

The specific site locations at Fort Greely are spread throughout the installation.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Army Environmental Database – Restoration (AEDB-R) – FGLY-003

4.0 STATUS

These tank sites are included and addressed on other fact sheets. The following action will be conducted to address the site titled Aboveground Storage Tanks (Various).

The site will be removed from the Defense Environmental Restoration Program (DERP).

BUILDING 319 UST NO. 421 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 319 Underground Storage Tank (UST) No. 421 located at Fort Greely, Alaska. This site is not listed in known environmental databases.

UST No. 421 was a 500-gal heating oil UST installed in 1984 at Building 319.

2.0 SITE LOCATION

The site is located on the east side of Building 319 on Mid Post, approximately as follows.

- Fort Greely Local Grid: Northing 195663, Easting 201389.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Turn north on the gravel drive leading to Buildings 319 and 320.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

U.S. Army Tank Files, FGA Tank 421 Building 319.

3.2 Description of Site Characterization and Remedial Actions

UST No. 421 was tightness tested in 1987 and was not leaking. The tank was located adjacent to the east side of Building 319. Tank removal was scheduled for 1995; however, it was delayed because of delays in obtaining the replacement Aboveground Storage Tank (AST). Documentation in the Fort Greely Department of Public Works (DPW) tank file supports that the UST was removed in 1996 and replaced with the current AST.

There is no documentation in the Fort Greely DPW tank file regarding sample collection during removal of the tank. A site assessment report was not found in Fort Greely DPW and U. S. Army Corps of Engineers (USACE) documentation.

3.3 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been discovered at the site, ADEC Regulations 18 AAC 75 would apply. The



soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

The UST was removed from the site in accordance with procedures in effect at the time for heating oil tanks. The UST was used to store diesel heating oil, but no evidence of release was documented during the removal of the UST.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 319 UST No. 421.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

BUILDING 328 UST NO. 424 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Building 328 Underground Storage Tank (UST) No. 424 located at Fort Greely, Alaska. This site is not listed in known environmental databases.

Documentation in the Fort Greely Department of Public Works (DPW) tank file for this site indicates UST No. 424 was either a 100-gal or 1,000-gal heating oil tank at Building 328.

2.0 SITE LOCATION

Building 328 was located in Mid-Post north of East Post Road. The site is located approximately as follows.

- Fort Greely Local Grid: Northing 195096, Easting 201295.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Travel east approximately 1,000 ft. The site is located on the north side of East Post Road, between East Post Road and Pine Road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army Tank Files, FGA Tank 424 Building 328
- 2. Drawing dated 13 November 1979 titled Repair Station POL Facility Location and Vicinity Map, F16-06-3433.

3.2 Description of Site Characterization and Remedial Actions

Building 328 has been removed. Documentation indicates Building 328 was either a steam plant or a television/radio station. No tank was found in 1991 at the time of building demolition and it was presumed the tank had been removed. No site assessment report was found in Fort Greely DPW documentation.



3.3 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination had been encountered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

A heating oil UST was removed from the site. The UST was used to store diesel heating oil and there is no evidence of a release.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 328 UST No. 424.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying future contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities (such as building demolition or development) encounter contamination at the site, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

BUILDING 627 UST NO. 444 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 627 Underground Storage Tank (UST) No. 444 located at Fort Greely, Alaska. This site is not listed in known environmental databases.

UST No. 444 was reportedly located at Building 627.

2.0 SITE LOCATION

The site is located within the Admin/Industrial Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 192914, Easting 203096.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Arctic Avenue. Building 627 is at the northeast corner of the intersection of East Fifth Street and Arctic Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

U.S. Army Tank Files, FGA Tank 444 Building 627.

3.2 Description of Site Characterization and Remedial Actions

According to Fort Greely Department of Public Works (DPW) tank files, UST No. 444 was a 300-gal capacity steel heating oil tank. The tank was not found in a tank survey conducted on 8 May 1990. A 12 October 1993 tank information form indicated the tank to be in use; however, it stated the tank was also not found during a tank survey on 11 October 1991. A 19 May 1994 tank information form indicated the tank was permanently out of use and had been removed from the ground. It stated the building and the tank no longer exist. There was no indication of site assessment being performed. Site assessment documentation was not found at Fort Greely DPW.

Building 627 is currently the "Boat Shop." No vent or fill pipes were observed at Building 627 during a site visit in November 2003. Review of available as-built drawings at Fort Greely did not reveal a tank location at Building 627. The Storm Water Pollution Prevention Plan (SWPPP)

for this site makes no mention of a UST. Mr. Dean Stumpe, a long-standing Fort Greely DPW employee, did not recall a UST being used at Building 627. Note that a tank does exist at nearby Building 625 (well house) that provides fuel for the well pump. However, tank file documentation indicates that tank is UST No. 443. Based on the available information, UST No. 444 is presumed to have been removed. Alternatively, there is a potential that UST No. 444 was mistaken for another UST at nearby Buildings 625 or 626.

3.3 Cleanup Levels

The heating oil UST was not regulated by ADEC in accordance with 18 AAC 78.005(e)(5). If contamination is discovered at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

Documentation regarding site assessment is not available. The UST was used to store diesel heating oil, but no evidence of release was documented.

4.0 SITE STATUS AND REMEDY

No further investigation will be conducted at this site. The following actions have been or will be conducted to address future uses of the area surrounding Building 627 UST No. 444.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations. A large conservative AC area is enforced by FGA that covers all possible locations of the former UST.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

BUILDING 639 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 639 located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-025
- ADEC Database Identification File 141.38.020.

The site is purportedly a burn pit located at Building 639. Building 639 is a small building located near the sewage lagoons and is associated with the chlorination system.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 193645, Easting 205119.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Arctic Avenue. Turn north on Landfill Road. At the intersection, bear northeast on the road toward Jarvis Creek. Building 639 is located on the southeast side of the road inside the fenced enclosure surrounding the sewage lagoons.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Army Environmental Database Restoration (AEDB-R) FGLY-025
- 2. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report.

3.2 Description of Site Characterization and Remedial Actions

Conflicting information exists regarding this site, prompting clarification in the AEDB-R database and potentially other database files.

Parcel 89 under the former Base Realignment and Closure (BRAC) program is a refuse burn pit located inside a fenced enclosure used to burn domestic garbage for volume reduction prior to placement in the landfill. The Resource Conservation and Recovery Act (RCRA) Facility Assessment (SAIC, January 1990) indicates this site as Solid Waste Management Unit (SWMU)

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No. 14 and shows the associated site building as Building 639 (see SAIC Figure 4). The AEDB-R database describes this refuse burn pit under FGLY-076, also referencing SWMU-14 and SWMU-15.

However, the AEDB-R database describes FGLY-25 as an "Incinerator/Burn Pit". The site information spreadsheet associates FGLY-25 with Building 639 and ADEC File 141.38.02, and describes the site as a fire burn pit.

Available CAD drawings show Building 639 located adjacent to the northwest side of the sewage lagoons, while the RCRA Facility Assessment (Figure 4) shows Building 639 at the former BRAC Parcel 89 location where the current refuse burn pit exists. The RCRA Facility Assessment associates SWMU No. 22 (located at the sewage lagoons near where CAD drawings show Building 639) with the Waste Water Treatment System – Chlorine Gas Contact Chambers.

According to Mr. Dean Stumpe, a long-time Fort Greely Department of Public Works (DPW) employee, Building 639 has always existed adjacent to the sewage lagoons. A site visit in November 2003 verified this location.

ADEC File No. 141.38.020 contains a map from a document by CH2M Hill that shows Building 639 at the refuse burn pit area of former BRAC Parcel 89. The map apparently depicts an incorrect location.

4.0 STATUS

Based on the available information, the following actions have been or will be conducted to address the Building 639 site.

- Clarification and corrections will be made to the various databases and files associated with this site to correct the identified discrepancies.
- a. Building 639 is not located at the former Parcel 89 refuse burn pit location. Building 639 is located adjacent to the north side of the sewage lagoons inside the fenced enclosure. Maps in available documentation that show Building 639 at the refuse burn pit area are incorrect. Specifically, Figure 4 in the RCRA Facility Assessment PR/VSI Report is incorrect. Additionally, the CH2M Hill map contained in the ADEC File 141.38.020 is incorrect.
- b. Building 639 is not a burn pit facility. It is part of the chlorination system for the sewage lagoons. The Building 639 site is SWMU No. 22. The AEDB-R database information for FGLY-025 will be corrected. The description "Incinerator/Burn Pit" will be changed to "Chlorine Gas Contact Chambers". ADEC File 141.38.020, intended to address the burn pit, will be blended with ADEC Contaminated Sites File 200033X933602 CS, the file associated with former BRAC Parcel 89 Refuse Burn Pit. Alternatively, if ADEC's intention for File 141.38.020 was to track SWMU No. 22 Chlorine Gas Contact Chambers for the sewage lagoon, then File 141.38.020 will remain separate from the contaminated sites file. However, the file information will be detailed to correct the site location and stipulate the association with SWMU No. 22 instead of SWMU No. 14 and No. 15.

COLLAPSED BARRACKS FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as the Collapsed Barracks at Fort Greely, Alaska. This site is not listed in known environmental databases.

No information was found about this site in the U. S. Army Corps of Engineers (USACE) and Fort Greely Department of Public Works (DPW) documentation reviewed.

2.0 SITE LOCATION

The location is near Building 658.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

No documents were reviewed regarding this site. Investigation of the site revealed that the barracks were built upon buried, discarded lumber. Upon natural decay of the lumber, the foundation failed and barracks collapsed.

4.0 STATUS

Based on the available information, no further investigation will be conducted to address this site.

GENERAL FORT GREELY INVESTIGATIONS FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as General Fort Greely Investigations. The following database identification applies to this site:

• Army Environmental Database – Restoration (AEDB-R) – FGLY-044

According to the AEDB-R database, FGLY-044 is not a true site. Most of the parcels identified in the Environmental Baseline Survey (EBS) for investigation under Base Realignment and Closure (BRAC) were investigated under this number. In addition, four areas that appeared to be contaminated with hydrocarbons were found during the course of excavating a nuclear waste pipeline in 1997, and they were likewise investigated under this AEDB-R number in 1998.

Site FGLY-005 (an old AEDB-R number) was investigated under FGLY-044 but is recommended for No Further Action (NFA). Sites FGLY-051, -055, -057, -065, -067, -068, and -069 (potential AEDB-R numbers) received funding but are considered NFA; thus, they were not added to AEDB-R. Sites FGLY-038, -052, -053, -059, and -060 received funding in FY98 under FGLY-044 and require further work; they were added to AEDB-R.

2.0 SITE LOCATION

This site incorporates multiple sites across Fort Greely. Consequently; a specific site location is not applicable.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Army Environmental Database – Restoration (AEDB-R) – FGLY-044.

3.2 Description of Site Characterization and Remedial Actions

Specific sites investigated under FGLY-044 received separate FGLY designations and are addressed under separate fact sheets.

4.0 STATUS

The site will be removed from the Defense Environmental Restoration Program (DERP). The individual sites are addressed under separate fact sheets.

LANDFILL NO. 8 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Landfill No. 8 located at Fort Greely, Alaska. The following database identifications apply to this site:

- Solid Waste Management Units (SWMUs) SWMU No. 8, 10, 11, 12
- Army Environmental Database Restoration (AEDB-R) FGLY-023.

Landfill No. 8 is the currently active landfill located approximately 2 miles south of the main cantonment. In 2003 the landfill was expanded to the south and the new cells began receiving waste in 2004. This landfill is associated with four separate SWMUs, as indicated above. The landfill is composed of rectangular trenches of assorted sizes, depths, and contents.

2.0 SITE LOCATION

Landfill No. 8 is approximately 2 miles south of the main cantonment. The site is accessed via Landfill Road east and south of the cantonment.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska
- 3. Emcon (September 1993) Closure Plan for the Fort Greely Landfill Drum Staging Area
- 4. Woodward-Clyde (March 1996) Postwide Site Investigation, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Landfill No. 8 is an operational, ADEC-permitted sanitary landfill. At the time of the Resource Conservation and Recovery Act (RCRA) Facility Assessment in 1990 (SAIC, January 1990), the landfill operated under Permit No. 84-31-BA004. Current records indicate the landfill operates under ADEC Permit No. 0233-BA005, issued 4 February 2003 and expiring 01 January 2008. The landfill is permitted for the following wastes: septage, inert waste, municipal waste, ash, Regulated Asbestos-Containing Material (RACM), non-RACM, sludge, and construction debris.

Three monitoring wells (AP-615, AP-616, and AP-617) were installed and sampled near Landfill No. 8. Two of the wells (AP-615 and AP-617) were sampled in 1995 under the postwide site investigation conducted by Woodward-Clyde. Water samples were analyzed for Total Residual Petroleum Hydrocarbons (TRPH), Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Semi-Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs), pesticides, Polychlorinated Biphenyls (PCBs), Total Organic Carbon (TOC), alkalinity, ammonia, Chemical Oxygen Demand (COD), chloride, hardness, phosphorus, Total Dissolved Solids (TDS), sulfate, turbidity, nitrate, Biochemical Oxygen Demand (BOD), and metals. TRPH (up to 1.3 mg/L) and DRO (up to 0.16 mg/L) concentrations were indicated to be representative of naturally occurring organics in the samples. VOC detections were attributed to laboratory contamination. Pesticides and PCBs were not detected. The reported lead concentration at AP-617 (0.016 mg/L) slightly exceeded the ADEC Table C Groundwater Cleanup Level of 0.015 mg/L. Based on the results of groundwater monitoring and the significant depth to groundwater, Fort Greely has received an ADEC exemption from continued groundwater monitoring at Landfill No. 8.

The following four SWMU's are associated with Landfill No. 8, each described separately.

3.2.1 SWMU No. 8

SWMU No. 8 was a temporary waste accumulation area located at the northwest corner of the landfill area. At the time of the RCRA Facility Assessment, wastes were stored at this location in 55-gal drums atop wooden pallets, including solvents, lube oil, used motor oil, diesel oil, and antifreeze. Several areas of stained surficial soil were observed in 1990. A closure plan was prepared in 1993. Nine borings were drilled, ranging in depth from 9.0 to 17.3 ft below ground surface (bgs). Additionally, one test pit was excavated to 10 ft bgs and four surface soil samples were collected. The analytical program included testing for VOC, Toxicity Characteristic Leaching Procedure (TCLP) RCRA metals, Fuel ID, TPH, DRO, pesticides, PCBs, chlorinated herbicides, and SVOC. Action levels were proposed in the closure plan based on regulations in effect at the time. All analyte detections were below the action levels and the site was recommended for closure. EPA review comments are available in the Fort Greely Department of Public Works (DPW) files; however, it is unclear if the SWMU was formally closed.

3.2.2 SWMU No. 10

SWMU No. 10 represents the asbestos waste trench and containers therein. Asbestos waste generated at Fort Greely was containerized in metal containers; then the containers were placed in a landfill trench. The trench was unlined. This trench has been closed and a new cell in the expanded landfill is designated for asbestos waste. This SWMU should be closed.

3.2.3 SWMU No. 11

Combustible refuse generated at Fort Greely is burned at SWMU No. 14 [former Base Realignment and Closure (BRAC) Parcel 89 Refuse Burn Pit] for volume reduction. The ash was then placed in the SWMU No. 11 portion of Landfill No. 8, termed Refuse Ash Disposal Trench. This trench is unlined. Non-hazardous burn pit ash is now disposed of as municipal

solid waste. Periodic TCLP analyses for RCRA metals are conducted on the ash, per DEC permit. This SWMU should be closed.

3.2.4 SWMU No. 12

SWMU No. 12 represents a battery storage location that was identified during the RCRA Facility Assessment in 1990. One automobile battery was identified at this location. The status of this SWMU is unclear at this time.

3.3 Cleanup Levels

Soil cleanup levels applicable to Landfill No. 8 are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone; except that separate cleanup levels exist for SWMU No. 8 (former waste accumulation area) that are indicated in the RCRA closure plan referenced above. Also, note that ADEC has specifically approved the use of soil treated previously at the adjacent Landfill No. 7 area as cover material at Landfill No. 8. Regulatory levels for groundwater are the 30 January 2003 ADEC Groundwater Cleanup Levels contained in 18 AAC 75.345 Table C.

4.0 SITE STATUS AND REMEDY

Based on the available information, the following actions have been or will be conducted to address Landfill No. 8.

- 1. Landfill No. 8 will continue to be operated in compliance with the ADEC Permit and applicable ADEC Regulations 18AAC60 Solid Waste Management. Landfill No. 8 will be removed from the Defense Environmental Restoration Program (DERP). No further invasive action will be conducted at the present time. For future reference, administrative controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. An additional AC has been established for the area to the northeast of the landfill. The area is shown in the figure titled Administrative Control Areas in Attachment 5. No new water wells can be sited in this area. Groundwater flows northeast underneath FGA and since this landfill is not lined, there is potential that some contaminants could migrate to groundwater.
- 3. Additional file documentation will be reviewed to determine if SWMU No. 8 has been closed. If formal closure has not been received, it will be pursued.
 - 4. SWMU No. 10 will be closed.
 - 5. SWMU No. 11 will be closed.
 - 6. SWMU No. 12 will be closed.



7. If FGA is ever transferred to another agency or an outside party, formal Institutional Control (ICs) will be implemented at the site. These ICs will provide notification of restrictions for industrial/commercial exposure and the potential hazards associated with disturbing the landfill. These more stringent ICs will take the form of deed restrictions or similarly stringent site requirements under official post land documentation. This added level of control is appropriate because of the nature of the site as a landfill where materials placed therein are unknown, thereby presenting a greater risk to human health and the environment than other sites monitored only under the AC program.

LEAD-BASED PAINT RISK ASSESSMENTS FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Lead Based Paint Risk Assessments located at Fort Greely, Alaska. The following database identification applies to this site:

• Army Environmental Database – Restoration (AEDB-R) – FGLY-081.

In 1996-97, Woodward-Clyde performed a Lead-Based Paint (LBP) survey as part of the former Base Realignment and Closure (BRAC) program. The objective of the survey was to conduct LBP risk assessments and inspections to comply with the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of P.L 102-550).

2.0 SITE LOCATION

The LBP survey was conducted at housing structures in the southern portion of the cantonment area. The site is located approximately as follows.

• <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn south on First Street. The site includes the 800-series buildings east of First Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Woodward-Clyde (August 1997) Lead Based Paint Survey, Buildings 820 and 822
- 2. Woodward-Clyde (August 1997) BRAC Lead Based Paint Survey
- 3. Army Environmental Database Restoration (AEDB-R) FGLY-081.

3.2 Description of Site Characterization and Remedial Actions

The survey included 51 LBP inspections and 20 risk assessment inspections on family housing buildings constructed prior to 1960. The medical center (MEDDAC) and the transient quarters (billeting) were also constructed prior to 1960 and included. The survey also included five risk assessments and 15 screen risk assessments of lead hazards on the family housing buildings constructed between 1960 and 1978.



Several components were found to contain LBP in all of the buildings. Examples include, but are not limited to, doors, doorframes, doorjambs, door casings, closet rods, closet shelves, moldings, and baseboards. Risk assessments indicated the only LBP hazards that were found were from deteriorated LBP.

AEDB-R database information indicates the following:

"LBP risk assessments done in 1996 are invalid due to new OSHA requirements. They are only valid within 1 year of property transfer, which should not happen before 2002. In late 2001, determination of surplus was rescinded; therefore there is no more requirement for risk assessments."

3.3 Summary of Contamination

LBP exists in surveyed buildings at Fort Greely.

4.0 STATUS

LBP mitigation will be removed from the Defense Environmental Restoration Program (DERP) and handled by the Fort Greely environmental compliance program.

ORDNANCE AND HAZARDOUS MATERIALS STORAGE AREA FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as the Ordnance and Hazardous Material Storage Area located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-026
- ADEC Database Identification File 141.38. 032.

This site is purportedly a former ordnance and hazardous materials storage area.

2.0 SITE LOCATION

The site is located north of the east end of the west taxiway of Allen Army Airfield, about 500 ft south of the centerline of the East-West Runway. The site is located approximately as follows.

- Fort Greely Local Grid: Northing 198828, Easting 203686.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on A Street, then north on 6th Avenue. Follow the gravel road east along the south side of the taxiway of Allen Army Airfield for approximately 1,800 ft. The site is across to the north of the taxiway. Approval from the airfield control tower is required prior to crossing the taxiway to access the site.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Based on review of documentation in the Preliminary Assessment (PA), this site is synonymous with former Base Realignment and Closure (BRAC) Parcel 85 North (Firefighter Training Area - North).



The following database identifications apply to former BRAC Parcel 85 North:

- Army Environmental Database Restoration (AEDB-R) FGLY-006
- Solid Waste Management Unit (SWMU) SWMU-44/L
- ADEC Database Identification (RecKey) 199133X933801 CS.

The site has been investigated extensively. Details of investigation and remediation conducted at the site are provided in the separate fact sheet for former BRAC Parcel 85 North. The reader is therefore directed to that fact sheet for additional information.

4.0 STATUS

Based on the available information and remedial actions conducted, the following actions will be conducted to address the site identified as the Ordnance and Hazardous Material Storage Area.

- 1. AEDB-R database numbers FGLY-006 and FGLY-026 are redundant. They both refer to the same site. The site has been extensively evaluated as Firefighter Training Area North. Therefore, FGLY-026 will be removed from the AEDB-R database.
- 2. Subject to ADEC concurrence, materials contained in ADEC File 141.38.032 will be combined (or shared, as appropriate) with ADEC File 199133X933801 CS.

SKEET RANGE FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as the Skeet Range located at Fort Greely, Alaska. The following database identifications apply to this site.

Army Environmental Database – Restoration (AEDB-R) – FGLY-082

The skeet range is an operational range facility at Fort Greely used for skeet shooting.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 194435, Easting 204322.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street, then turn east on Shaw Avenue. Turn northwest onto East Post Road and travel approximately 150 ft. Turn north on the gravel drive leading north to the parking area at the skeet range.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. USAED (June 2001) Chemical Data Report, Fort Greely Skeet Range Soil Sampling.
- 2. USACE (20 May 2004) Class V Underground Injection Control Engineers Assessment and Inventory Report (Section 3.5.1 and Table 8).

3.2 Description of Site Characterization and Remedial Actions

Sampling was conducted at the Fort Greely Skeet Range during 2001. Target analytes were limited to Resource Conservation and Recovery Act (RCRA) metals and Polynuclear Aromatic Hydrocarbons (PAH), chemicals typically associated with skeet ranges.

Twenty-two samples were collected on 8 June 2001 and sent to primary and referee laboratories. Some difficulties were encountered in analysis as a result of matrix interference, high lead levels, and minor laboratory instrument failures. These problems resulted in much of the data being flagged or estimated. Nevertheless, strong evidence was found for elevated PAH, lead, and



arsenic contamination at the Skeet Range. Surface soil from the clay pigeon debris field had PAH levels of $57,000~\mu g/kg$ for benzo(a)anthracene and benzo(a)pyrene, while several surface samples in the shotfall zone had lead levels as high as 35%.

Portions of each sample were sieved to remove intact lead-shot, and then analyzed for total lead. While these results were generally lower than the unsieved results, some concentrations still exceeded the residential action level of 400 mg/kg, with two samples containing 40,000 mg/kg total lead.

Preliminary leachability modeling was conducted to evaluate lead, arsenic, and PAH migration to groundwater at this site. The preliminary modeling results demonstrated the contaminants would not adversely impact groundwater.

The range is active and military munitions are not considered solid waste when used for its intended purpose [40 CFR 266.202(a)(1)(i)].

The 2004 Underground Injection Control (UIC) Assessment and Inventory indicates a septic tank and leach field exist at the skeet range. No recommendations are made in that document associated with these features.

3.3 Summary of Contamination

Lead and PAH contamination exist in near-surface soil above ADEC Method Two cleanup levels.

4.0 STATUS

This site will remain an operational range facility. No further invasive action will be conducted at the present time. The site is co-located with Landfill 4 and 5 (BRAC site 88) and any future actions necessitated by evolving ranges policies will be addressed as part of Landfill 4 & 5.

SLUDGE DRYING BEDS FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as the Sludge Drying Beds located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-024
- Solid Waste Management Unit (SWMU) SWMU No. 20
- ADEC Database Identification (RecKey) 199733X900111 CS.

The sludge drying beds, designated SWMU No. 20, are associated with sewage treatment on base. They accept solids from the Imhoff tank at Building 633 for drying and consolidation.

2.0 SITE LOCATION

The sludge drying beds are located near the intersection of East Pine Road, East Post Road and 33 Mile Loop Road. The site is located approximately as follows.

- Fort Greely Local Grid: Northing 193340, Easting 204426.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Shaw Avenue. Turn southeast on East Post Road. Bear right on 33-Mile Loop Road. The site is east of this intersection, just north of Building 633.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI, Fort Greely, Alaska
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska
- 3. Woodward-Clyde (March 1996) Postwide Site Investigation, Fort Greely, Alaska.
- 4. USACE (20 May 2004) Class V Underground Injection Control Engineers Assessment and Inventory Report (Section 3.1.1 and Table 8).



3.2 Description of Site Characterization and Remedial Actions

The Fort Greely cantonment has a single wastewater collection system for both domestic and industrial wastes. The wastewater treatment plant is operated under Wastewater Disposal Permit 0031-DB063 which expires 25 October 2006. The permit allows for disposal of up to 460,000 gallons per day of secondary treated, disinfected domestic wastewater to Jarvis Creek.

The plant at Building 633 was constructed from 1952 to 1956. The plant consists of a 150,000-gal Imhoff tank for primary treatment, providing 24-hr retention. Mechanically aerated biological sewage lagoons were constructed in 1966 for secondary treatment. Wastewater is pumped from the Imhoff tank to the sewage lagoons, where it is contained for 14-day retention time, and then chlorinated before discharge to Jarvis Creek.

Solids that settle out in the Imhoff tank are pumped to sludge drying beds adjacent to the north of Building 633 in a fenced enclosure. In approximately 1990, the sludge drying beds were upgraded to lined structures. Prior to that, leachate was allowed to contact the subsurface. The drying beds consist of three lined cells. The two northern cells are constructed of geotextile membrane covered with a layer of sand underlain by an impermeable liner with under-drains that recycle the leachate back to the wastewater treatment plant. The two northern cells are used in summer only. The southern cell is concrete lined and is used to store sludge in winter, where liquids are allowed to freeze dry and evaporate. Dried sludge is disposed of in the Fort Greely landfill. Toxicity Characteristic Leaching Procedure (TCLP) analysis is performed for RCRA metals before the sludge is approved for landfill disposal.

Approximately 50 yd³ of sludge is removed from the Imhoff tank each year and placed in the drying beds. The drying beds are cleaned out each year. Approximately 160 yd³ of dry sludge cake have been removed over the past 40 years. Ordinary domestic waste is not expected to contain toxic contaminants at significant levels. Industrial wastewater consists of vehicle equipment wash-rack effluent, boiler blow-down, photography shop wastes, x-ray developing wastes, and swimming pool filter backwash. Oil water separators and sand traps exist at vehicle maintenance facilities.

Woodward-Clyde investigated the site in 1995. Four soil borings were drilled around the perimeter of the beds to 21.5 ft below ground surface (bgs). Three sediment samples were also collected from drainage ditches northwest of the beds. Samples were analyzed for Total Residual Petroleum Hydrocarbons (TRPH), Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Semi-Volatile Organic Compounds (SVOCs), pesticides, Polychlorinated Biphenyls (PCBs), and metals. Maximum detected concentrations of DRO (120 mg/kg) and GRO (6 mg/kg) are below ADEC Method Two cleanup levels. Trace concentrations of benzoic acid, di-n-butyl phthalate, and bis(2-ethylhexyl) phthalate were detected well below ADEC Method Two cleanup levels.

Maximum detected concentrations of the pesticides alpha BHC (0.001 mg/kg), delta BHC (0.002 mg/kg), heptachlor epoxide (0.07 mg/kg), endosulfan I (0.047 mg/kg), endosulfan II (0.002 mg/kg), 4,4-DDD (8.4 mg/kg), and 4,4-DDE (6.9 mg/kg) were below ADEC Method Two cleanup levels. The maximum detected concentration of gamma BHC (0.032 mg/kg) exceeds the ADEC Method Two migration to groundwater cleanup level. Maximum detected concentrations of 4,4-DDT (120 mg/kg) and dieldrin (0.68 mg/kg) exceed ADEC Method Two

cleanup levels for both migration to groundwater and ingestion. The maximum detected concentration of arsenic (19 mg/kg) exceeds the ADEC Method Two cleanup levels for migration to groundwater and ingestion; however, it is within the range of background concentrations at Fort Greely. Likewise, the maximum detected chromium concentration of 31 mg/kg is within the range of background concentrations at Fort Greely. All other detected concentrations of ADEC-regulated metals were below ADEC Method Two cleanup levels.

3.3 Cleanup Levels

Soil cleanup levels applicable to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone. Regulatory levels for groundwater are the 30 January 2003 ADEC Groundwater Cleanup Levels contained in 18 AAC 75.345 Table C.

3.4 Summary of Remaining Contamination

Pesticide contamination, consisting of gamma BHC, 4,4-DDT, and dieldrin, exists at concentrations above ADEC Method Two cleanup levels. This impacted soil is in the upper 5 ft.

4.0 SITE STATUS AND REMEDY

The sludge drying beds are permitted and still active. No further invasive action will be conducted at the present time. For future reference, administrative controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.

FINAL JUNE 2005

ATTACHMENT

2

NO FURTHER ACTION (NFA) SITES – UNRESTRICTED USE SITES FACT SHEETS

Site Name	BRAC Parcel ID	Site Name	BRAC Parcel II
Bldg 601 Freight Section	46	Air Curtain Incinerator	82
Transformer Storage Area	49	Aeration Pad North	86
Bldg 602 Fuel Spill	51	Aeration Pad South	87
Bldg 627 Drum Storage Site	52	Bldg 601Dump Site	115
Bldg 650 PCB Storage	53	Alyeska Fuel Spill	119
Chemical Test Facility	56	Field between POL Facility and Bldg 615	131
Bldg 348	63	Building 133 UST 410	-
Bldg 349	64	Bldg 510 UST 431	-
Bldg 216	71	Classified Documents Burn Cage	-
Bldg 319 Fuel Spill	74	Drum Cache 2002	-
Bldg 318 Pesticide Storage	78		

BUILDING 601 FREIGHT SECTION FORMER BRAC PARCEL 46 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Building 601 Freight Section located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 46.

The following database identification applies to this site:

• Army Environmental Database – Restoration (AEDB-R) – FGLY-001.

Building 601 is a 114,082-ft² former Freight, Storage, and Commissary Building. In 1980, 55 gal of morpholine was spilled in the freight section of Building 601. The spill was cleaned up. Additionally, a small gasoline spill was reported in 1996. Antifreeze, motor oil, and alcohol are stored in the building.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193058, Easting 201615.
- <u>Physical Address</u>: Building 601. Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Travel 800 ft north. Building 601 is on the east side of First Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (Apr 1980) Spill Report, Building 601.
- 2. U.S. Army (Apr 1996) Spill Report, Building 601.
- 3. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1, Page 2-3, Table 3-3, Page 3-7, and Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

A prior morpholine spill was cleaned up in 1980. A 20-gallon gasoline spill occurred in 1996. The spill resulted from a tank failure on a privately owned vehicle. The gasoline spilled onto



pavement and cleaned up with absorbent. The recovered gasoline and spent absorbent were disposed of as hazardous waste.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 46 as a Community Environmental Response Facilitation Act (CERFA) Category 4 parcel. Category 4 was defined as follows:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and all removal or remedial actions to protect human health and the environment have been taken.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. No Further Action (NFA) was indicated.

3.3 Summary of Contamination

No remaining contaminants of concern are known to exist at this site.

4.0 SITE STATUS AND REMEDY

No further action will be conducted at this site.

TRANSFORMER STORAGE AREA FORMER BRAC PARCEL 49 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as the Transformer Storage Area located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 49.

The following database identification applies to this site:

• Army Environmental Database – Restoration (AEDB-R) – FGLY-038.

This site is a location near Building 509 where new transformers were stored. One transformer was leaking at the time of the Environmental Baseline Survey (EBS) site visit. During the site visit, all of the transformers had "No PCB" stickers on them. Previously, PCB-containing transformers were stored at this location and some leaked. In 1985, a transformer leak occurred near Building 511. Building 511 is located just north of Building 509 inside the same fenced compound. The soil impacted at Building 511 was removed, though no confirmation sampling occurred. Historically, batteries have also been stored at this facility.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193517, Easting 201931.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Travel east approximately 500 ft. The site is inside the fenced compound north of Shaw Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (1990) PCB Annual Report, 1979-1990.
- 2. U.S. Army (1990) Memorandums Regarding PCB Spills at Fort Greely, 1983-1990.
- 3. CH2M Hill (Dec 1992) Preliminary Assessment (PA), Fort Greely.
- 4. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).



5. Jacobs (April 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (pages 7-1 through 7-8).

3.2 Description of Site Characterization and Remedial Actions

The Preliminary Assessment (PA) (CH2M Hill, Dec 1992) identified a transformer storage area in the fenced storage yard, and indicated spills may have occurred.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 49 as a Community Environmental Response Facilitation Act (CERFA) Category 5 parcel. Category 5 was defined as follows:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and removal or remedial actions are underway, but all required actions have not yet been implemented.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

Six test pits were excavated to 5 ft bgs in 1998 in the transformer storage area. A sample was taken at the surface and bottom of each test pit. Samples locations were screened and analyzed for polychlorinated biphenyls (PCBs) and total lead. The area was also screened for diesel range organics (DRO) and residual range organics (RRO). Based on site observations and the analytical test results, the soil surrounding test pits was not impacted by the COPCs. All 12 samples yielded non-detects for PCBs and total lead ranged from 6 to 16 mg/kg. An area approximately 4 square feet by 1 foot deep at one test was impacted with DRO, RRO and lead. This stained soil was removed and containerized during the test pit excavation. The excavation was extended down to 10 feet to ensure the bottom of the contamination was found. The analytical results from the bottom of the excavation yielded a maximum of 10 mg/kg DRO and 40 mg/kg RRO (below ADEC Method Two cleanup levels). The contaminated material was removed as part of the test pit excavation process and was thermally processed in 2000.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to remain at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

Based on site observations and the analytical test results, the soil surrounding the test pits was not impacted by the COPCs. All contaminated soil was removed and No Further Action (NFA) will be conducted at this site.

BUILDING 602 FUEL SPILL FORMER BRAC PARCEL 51 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as the Building 602 Fuel Spill located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 51.

The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-035 (subject to verification)
- ADEC Database Identification (RecKey) 199133X022601 CS, 199133X022601 LUST.

Two 10,000-gal gasoline Underground Storage Tanks (USTs) were replaced at the site in 1991. This site is currently a gasoline filling facility. According to the 1996 Environmental Baseline Survey (EBS), the maximum gasoline concentration detected in soil during the UST replacement was 11 mg/kg, and the tank removal has been closed by ADEC.

In 1991, 200 gal of diesel was released. Several additional smaller spills have been reported.

2.0 SITE LOCATION

The site is located in the Admin/Industrial area approximately as follows.

- Fort Greely Local Grid: Northing 192803, Easting 201829.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Arctic Avenue. The site is approximately 400 ft east on the north side of Arctic Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (May 1980) Spill Report, Building 602.
- 2. U.S. Army (May 1985) Spill Report, Building 602.
- 3. U.S. Army (August 1991) Spill Report, Building 602.
- 4. Harding Lawson Associates (23 May 1994) Corrective Action Plan, Release Investigation, Fort Greely, Alaska.

Fort Greely, Alaska



- 5. U.S. Army, compiled by Woodward-Clyde (1993-1995) Spill Reports, Various Buildings, for the Years 1993 through 1995.
- 6. AGRA Earth and Environmental, Inc. (January 1996) Field Investigation Report, Confirmation Drilling, Buildings 162 and 606.
- 7. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).
- 8. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation Report (pages 7-21 and 7-22).
- 9. U.S. Army Tank File for Tank 433, Building 602.
- 10. State of Alaska, Department of Environmental Conservation, Division of Spill Prevention & Response, Contaminated Sites Program-Department of Defense letter dated October 25, 1996, regarding Investigation Report, Buildings 602, T-210, 110, and 162 at Fort Greely, Alaska, Contract DACA85-94-D-0011, D.O. 005 (AGRA, Inc.) signed by Ronan B. Short.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 51 as a Community Environmental Response Facilitation Act (CERFA) Category 5 parcel. Category 5 was defined as follows:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and removal or remedial actions are underway, but all required actions have not yet been implemented.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

Fort Greely Tank File information indicates that two 10,000-gal USTs (Tanks 432 and 433) were located at this post gasoline station. One contained unleaded gasoline and the other contained premium unleaded gasoline. The tanks had been in service since 1955. The tanks were not tightness tested.

The Tank File information indicates that an old 3-in. supply line was found at the time the tanks were removed in 1991. The line had been intended for supplying diesel, and had been abandoned in place. The line was plugged, capped, and pressure tested in 1991.

The Tank File contains field notes from the 1991 tank removal. During the removal, 200 gal of diesel were apparently released from the old abandoned pipe. Twelve cubic yards of contaminated soil were removed, and samples were collected that indicated the contamination had been cleaned up.

Harding Lawson Associates drilled four 20-ft borings and one 30-ft boring at the former tank site. Samples were analyzed for gasoline range organics (GRO). All samples were non-detect except one, which contained 11 mg/kg. This is well below the ADEC Method Two cleanup levels for GRO.



Based on the available information, this site was removed from the BRAC remedial investigation prior to the 1997 field activities and was not investigated further under BRAC.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

Based on the available information and remedial actions conducted, No Further Action (NFA) will be conducted at this site.

BUILDING 627 DRUM STORAGE SITE FORMER BRAC PARCEL 52 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Building 627 Drum Storage Site located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 52. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-064
- Solid Waste Management Unit (SWMU) SWMU-4

This site is not listed in the ADEC database.

Former BRAC Parcel 52 is an approximately 0.32-acre tract containing a former waste storage area located east of Building 627. Wastes stored at the site potentially included POL, acetone, damaged lead-acid batteries, empty aerosol cans, and antifreeze. Wastes were reportedly stored on a single row of pallets placed in the southeast corner of the fenced yard.

2.0 SITE LOCATION

The site is located in the Admin Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 192893, Easting 203222.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Arctic Avenue. The site is located approximately 300 feet east of the intersection of East Fifth Street and Arctic Avenue, north of Arctic Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (Jan 1990) RCRA Facility Assessment PR/VSI Report.
- 2. Emcon (May 1995) Fort Greely Hazardous Waste and Hazardous Materials Standard Operating Procedures.
- 3. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 5-1a).
- 4. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation (page 7-1).

5. Jacobs (April 2001) Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 52 as a Community Environmental Response Facilitation Act (CERFA) Category 6 parcel. Category 6 was defined as:

Areas where storage, release, disposal or migration of hazardous substances or petroleum products has occurred, but required removal or remedial actions have not yet been initiated.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated 1987-1995.

Field activities were conducted in 1997 to evaluate potential releases from drums, damaged batteries, and other waste containers. No visual indications of past storage practices were evident in the specified location during investigations conducted in July 1997. Two test pits were excavated and one surface soil sample was collected near the southeast corner of the fenced storage yard. Samples were analyzed for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), Semi-Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs), and Resource Conservation and Recovery Act (RCRA) metals. Contaminates of Potential Concern (COPC) concentrations did not exceed screening standards used in 1997, and no further action was recommended at that time.

Detected DRO concentrations ranged up to 465 mg/kg; this exceeds the current ADEC Method Two migration to groundwater cleanup level. However, errors were previously identified in the 1997 sample results reported by Lockheed Analytical. The results were subsequently corrected and re-published by Jacobs (April 2001). Corrected DRO results were an order of magnitude lower than the original reported results; the maximum DRO concentration was actually 47 mg/kg. All analytical results from the 1997 investigation were therefore below ADEC Method Two cleanup levels.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site.

4.0 SITE STATUS AND REMEDY

Based on the available information, no further action (NFA) will be conducted at this site.

BUILDING 650 PCB STORAGE FORMER BRAC PARCEL 53 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Building 650 polychlorinated biphenyl (PCB) Storage located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 53. The site is not listed in known environmental databases.

Parcel 53 is a 0.3-acre tract that includes Building 650 and associated grounds. Building 650 was used as a Crafts Shop. In 1978, at least one 55-gallon drum of PCB-contaminated oil was reportedly stored at Building 650. This oil was apparently used as lubricating oil on a rock cutting saw inside the shop.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 192243, Easting 201631.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue to First Street. Building 650 is at the northeast corner of the intersection of Big Delta Avenue and First Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Woodward Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 5-1a).
- 2. Jacobs (Sept 1998) Site Investigation / Limited Remedial Investigation (pages 8-1, to 8-6).
- 3. Jacobs (April 2001) Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an environmental baseline survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the



installation. The EBS listed Parcel 53 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as:

Areas that are not evaluated or require additional evaluation.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated 1987-1995. The EBS recommended soil be investigated.

In 1997, field activities were conducted to evaluate the potential presence of PCBs associated with their prior use at the building in lubricating oil. Consideration was given to collecting wipe samples inside the building. The rock cutting saw had been sold in 1993, and the interior of the shop had since been remodeled and painted. Wipe sampling was therefore removed from the 1997 work plan.

Four surface soil samples were collected south of the building at potential loading areas. The samples were analyzed for PCBs and pesticides. No PCBs were detected. Trace concentrations of pesticides were detected, including A-chlordane, heptachlor, 4,4-DDD, 4,4-DDE, 4,4-DDT, and endrin. Pesticide concentrations were below ADEC Method Two cleanup levels.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

Based on the available information, no further action (NFA) will be conducted at this site.

CHEMICAL TEST FACILITY FORMER BRAC PARCEL 56 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as the Chemical Test Facility located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 56.

The following database identifications apply to this site:

• Army Environmental Database – Restoration (AEDB-R) – FGLY-061.

This site includes former Building 625 and associated grounds. The site was identified as a Former Chemical Testing Facility. Building 625 was used by the Chemical Test Branch of Cold Regions Testing Center (CRTC) for administrative and logistical support of chemical testing conducted elsewhere at the Gerstle River chemical testing site. The building was also used for occasional billeting. Building 625 was later used by the CRTC meteorological group. The site is co-located with Landfills 4 &5, BRAC Parcel 88.

2.0 SITE LOCATION

The site is located in the Admin/Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193189, Easting 204085.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Shaw Avenue. Travel east approximately 1,200 ft. The site is on the south side of Shaw Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. U.S. Army (date unknown) Full-Sized Drawing: Lumber and Gas Storage.
- 2. U.S. Army (Nov 1967) Full-Sized Drawing: Sanitary Landfill Area (Abandoned).
- 3. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Fort Greely, Alaska (Table 5-1a).
- 4. Jacobs (April 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (pages 9-1 to 9-11).



3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 56 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. As a result of the name of the site, "Chemical Test Facility," and its association with Gerstle River testing, concern was raised about the potential for Chemical Warfare Material (CWM) to exist at this site. Building 625 was used by CRTC for administrative and logistical support, and for billeting.

The site was nevertheless investigated in 1998. For investigation purposes, it was assumed CWM was not stored at the site, consistent with the results of prior information-gathering. Surface sampling conducted in 1998 was anticipated to verify this conclusion. Unexploded Ordnance (UXO) clearance, geophysical survey, and surface sampling were conducted. Twenty-five surface soil samples were collected. Samples were analyzed for chemical degradation compounds using test method ULL9. Thiodiglycol was reportedly detected in 13 samples ranging in concentration from 5.78 to 38.6 mg/kg. This chemical was considered a potential indicator of mustard gas. However, the chemist concluded that the reported thiodiglycol detections reflected false positives, and the project lab analyst concurred.

Five of the samples were then transported to a different laboratory to enable a different analytical method (SW8321M) to be conducted. Thiodiglycol was not detected by this analysis, at reporting limits of 0.028 to 0.032 mg/kg. A third screening analysis by a third party indicated the samples did not contain distilled mustard (HD), the parent compound of the thiodiglycol hydrolysis process. It was concluded the surface samples did not contain detectable thiodiglycol. No additional action was recommended in 1998 regarding the potential CWM issue. These results were rejected by EPA, however, because the latter verification analyses were conducted outside the 14-day holding time.

During 2001, additional investigation was conducted at the site to resolve the concern regarding the initial reported detections of thiodiglycol. Five additional surface soil samples were collected at locations where previous detections of thiodiglycol had been initially reported. Samples were analyzed by method SW8321M. Thiodiglycol was not detected in any of these soil samples.

3.3 Summary of Remaining Contamination

Thiodiglycol has been eliminated as a contaminant of concern at this site. Geophysical anomalies were identified in the northern area of Parcel 56 that are believed to be associated with former Landfills 4 and 5 (Parcel 88).

4.0 SITE STATUS AND REMEDY

Based on the available information and investigations conducted, No Further Action (NFA) related to the potential for CWM will be conducted at this site.

The area is co-located with former BRAC Parcel 88 (Landfills 4 and 5).

BUILDING 348 FORMER BRAC PARCEL 63 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Building 348 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 63. The site is not listed in known environmental databases. However, this site is thought to potentially be Solid Waste Management Unit (SWMU) No. 25. As indicated below, this question will be resolved.

Building 348 is a 700-ft² former pesticide tractor storage building. Building 348 has been used to store rinsate from pesticide equipment washdowns. A 1,000-gal Aboveground Storage Tank (AST) was used to hold waste washwater. Pesticides, waste oil, and ethylene glycol have been stored at this facility.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 194922, Easting 201076.
- Physical Address: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Travel approximately 800 ft east to the intersection with a gravel road leading south. The site is located inside the northwest corner of the fenced compound located at the southeast corner of the intersection. Access to the compound is through a gate at the southeast corner.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. U.S. Army Toxic and Hazardous Materials Agency (Dec 1990) Waste Site Locations.
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely.
- 3. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1, Table 5-1a, Table 3-4 Page 3-9).



3.2 Description of Site Characterization and Remedial Actions

The Preliminary Assessment (PA) indicated Building 348 was used for herbicide storage. An AST on the west side of the building was used to store rinsate from equipment washdowns. The tank sat atop a concrete pad and had secondary containment.

As part of the PA, three borings were drilled and five surface samples were collected at the Building 348/349 area during 1995. One boring was located outside Building 348 where pesticide mixing had occurred. The boring was drilled to 23 ft below ground surface (bgs). Surface soil samples were also collected from nearby drainage ditches and termed "sediment" samples. Samples were analyzed for pesticides. Trace levels of pesticides were detected with many of the values below laboratory reporting limits. Some of the detected analytes were also found in the method blank.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 63 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

Again, the EBS indicated the building was being used for pesticide and rinsate water storage. There has been no documented evidence of release. According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. No further investigation of the site was conducted under BRAC.

The analytical results from the PA were compared against ADEC Method Two cleanup levels during the preparation of this fact sheet. All detected concentrations of analytes that have ADEC Method Two cleanup levels were below their respective ADEC Method Two cleanup levels.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site.

4.0 SITE STATUS AND REMEDY

Further document review determined BRAC Parcel 63, Building 348, is SWMU No. 25 identified as the "concrete herbicide mixing pad." SWMU No. 25 will be closed. Based on the available information, No Further Action (NFA) will be conducted at this site.

BUILDING 349 FORMER BRAC PARCEL 64 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Building 349 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 64.

The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-014
- Solid Waste Management Unit (SWMU) SWMU-24
- ADEC Database Identification (RecKey) 199233X930302 CS.

Building 349 is a 747-ft² building at the Pesticide Office/Storage location. Pesticides are stored in Building 349 and an adjacent shed. Pesticides and herbicides are used at Fort Greely for weed, insect, and rodent control. Used oil and ethylene glycol have also been stored in the building.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 194820, Easting 201233.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Travel north to the T intersection. The fenced compound is across the road to the north. The subject building is near the north end of the fenced compound.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. U.S. Army Environmental Hygiene Agency (Aug 1988) Environmental Operations Review, Findings and Recommendations.
- 2. SAIC (Jan 1990) RCRA Facility Assessment PR/VSI Report.
- 3. CH2M Hill (Dec 1992) Preliminary Assessment, Fort Greely, Alaska.
- 4. Woodward-Clyde (Mar 1996) Postwide Site Investigation, Fort Greely.

5. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 2-1, Table 4-1, Table 5-1a, and pages 4-1, & 4-14).

3.2 Description of Site Characterization and Remedial Actions

Building 349 is described in the Preliminary Assessment (CH2M Hill, Dec 1992, Section 3.2). The PA shows a mixing area located adjacent to the north side of the building. Pesticide wastewater was routed to a 5,000-gal Underground Storage Tank (UST). During a 1998 site inspection, this UST was found to be overflowing with water. Contaminants of Potential Concern (COPCs) were pesticides and herbicides. Chemicals used at the site include diazinon, 2,4-D, Diquat, malathion, carbaryl, pyrethum, baygon/vapona, dursban/chorpyrifos, prometon, and bromacil.

A site investigation in 1995 identified low levels of pesticides in the soil. This documentation indicates pesticides were mixed on a gravel pad north of the building, and the gravel was removed to a landfill and replaced annually. Three borings were drilled and five surface samples were collected at the Building 348/349 area during 1995. Two borings were located outside Building 349 where pesticide mixing had occurred. Borings were drilled to 23 ft below ground surface (bgs). Surface soil samples were collected from drainage ditches and termed "sediment" samples at the time. Samples were analyzed for pesticides. Results were compared against ADEC Method Two cleanup levels. Trace levels of pesticides were detected with many of the values below laboratory reporting limits. Some of the detected analytes were also found in the method blank. All detected concentrations of analytes that have ADEC Method Two cleanup levels were below ADEC Method Two cleanup levels.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 64 as a Community Environmental Response Facilitation Act (CERFA) Category 3 parcel. Category 3 is defined as follows:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, but at concentrations that do not require a removal or remedial action.

As a result, no further investigation was conducted under BRAC. According to EBS Table 5-1a and Table 2-1, the site was evaluated by interview, visual inspection, aerial photograph analysis, and review of available documentation. According to the EBS, all pesticides and herbicides are applied by a certified technician. All of the products, their EPA registration number, and their quantities are recorded in a monthly pesticide inventory (Woodward-Clyde, 1997, page 4-14).

3.3 Summary of Remaining Contamination

Based on the results of the investigation conducted at the site, no contaminants of concern are known to exist at this site. Detected pesticides were below ADEC Method Two cleanup levels.

4.0 SITE STATUS AND REMEDY

SWMU-24 will be closed. Based on the available information, No Further Action (NFA) will be conducted at this site.

BUILDING 216 FORMER BRAC PARCEL 71 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Building 216 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 71. The following database identifications apply to this site.

• Solid Waste Management Unit (SWMU) - SWMU-9

Built in 1987, Building 216 was formerly a Fort Greely DPW hazardous waste storage location. The building was used to store waste products prior to transportation from Fort Greely. A spill of halogenated solvents occurred in 1990. In 1992, this facility was taken out of service and all waste was removed. EPA has accepted RCRA closure. The building has been demolished, and the 144 square foot concrete secondary containment pad remains.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195897, Easting 202095.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Turn north on Butternut Road. Travel north approximately 1,400 feet. The site is on the west side of the road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. U.S. Army Directorate of Public Works, Fort Greely (October 1990) Memorandum to Chief of Environmental Resources Branch, Ft. Richardson.
- 2. EMCON (October 1993) Closure Plan For Building 216, Fort Greely, Alaska.
- 3. U.S. Army (March 1995) Closure Letters for Buildings 216, 606, 615, 626, and Landfill 7.
- 4. U.S. Army Directorate of Public Works, Fort Greely (July 1995) Letters to the U.S. Environmental Protection Agency for Closure of 216, 606, and Landfill Drum Storage.



- 5. Woodward Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Fort Greely, Alaska. (Table 2-1, Table 3-4 Page 3-9, and Table 5-1a).
- 6. EPA Region 10 (Mr. Bill Adams) (07 July 2003) E-mail communication verifying RCRA closure occurred September 1995.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 71 as a Community Environmental Response Facilitation Act (CERFA) Category 4 parcel. Category 4 was defined as:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and all removal or remedial actions to protect human health and the environment have been taken.

EMCON sampled the site in 1992. EMCON placed 12 soil boring through the concrete pad and surrounding area. A total of 73 soil samples were taken at depths ranging down to 50.5 ft. Wipe samples were also taken from the concrete pad. No significant contamination was found. The highest Total Recoverable Petroleum Hydrocarbons (TRPH) concentration detected was 410 mg/kg in a sample collected at a depth of 5 to 6.5 ft. below the surface. This same sample was analyzed under a different method after 8 of 12 laboratory blank samples contained about 18 mg/kg TRPH. The fuel scan performed on this sample did not find Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), or Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) compounds above detection limits of about 11 mg/kg. All other samples were analyzed by this second method and the highest concentration found was a 100 mg/kg detection of kerosene in a sample from 0-2 ft. below ground. No further action (NFA) was recommended and closure under RCRA was granted. In 2003 EPA verified closed under RCRA.

3.3 Summary of Contamination

No contaminants of concern are known to exist at concentrations of concern at this site.

4.0 SITE STATUS AND REMEDY

SWMU No. 9 has been closed under RCRA. Based on the available information and remedial actions conducted, no further action (NFA) will be conducted at this site.

BUILDING 319 FUEL SPILL FORMER BRAC PARCEL 74 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Building 319 Fuel Spill located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 74. The following database identification applies to this site:

• ADEC Database Identification (RecKey) – 199233X117501 CS.

Former BRAC Parcel 74 is a 0.25-acre tract at Building 319, the Carpenter shop. A release of petroleum product occurred in the storage yard west of Building 319 in 1992.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195750, Easting 201236
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road and travel approximately 400 ft. Bear left on Pine Road, then north to the Building 319 site. The spill site is in the yard area west of Building 319 and 320.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army (January 1992) Oil and Hazardous Materials Incident Report.
- 2. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 5-1a).
- 3. Jacobs (April 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (page 12-8).

3.2 Description of Site Characterization and Remedial Actions

In 1992, a stained soil area was identified in the yard area west of Building 319. A release from a mobile fuel storage tank had occurred; the volume released was less than 1,000 gal. Stained



soil with elevated field screening readings was removed. The excavation was approximately 20 by 20 by 3 ft deep (approximately 44 yd³). A silt layer encountered in the excavation at 3 ft below ground surface (bgs) apparently retarded the vertical migration of fuel.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 74 as a Community Environmental Response Facilitation Act (CERFA) Category 5 parcel. Category 5 was defined as follows:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and removal or remedial actions are underway, but all required actions have not yet been implemented.

In July 1998, three test pits (TP-899, TP-900, and TP-901) were excavated to further evaluate the site under the BRAC program. The release location was identified with the assistance of Mr. Muth, a Fort Greely Department of Public Works (DPW) contact who had been present during the initial soil removal action. TP-899 was excavated to 10 ft bgs at the center of the former spill area. TP-900 and TP-901 were excavated to 5 ft bgs at the edges of the former spill area. Samples were analyzed for Diesel Range Organics (DRO), Residual Range Organics (RRO), Gasoline Range Organics (GRO), Volatile Organic Compounds (VOCs), Polynuclear Aromatic Hydrocarbons (PAH), Polychlorinated Biphenyls (PCBs), and Resource Conservation and Recovery Act (RCRA) Metals. A surface sample at TP-900 contained the highest analyte concentrations; DRO was detected at 20 mg/kg and RRO at 490 mg/kg. These concentrations are well below ADEC Method Two cleanup levels. This sample also contained estimated (J-flagged) trace concentrations of the PAH compounds fluoranthene, phenanthrene, and pyrene, all well below ADEC Method Two cleanup levels. Detected concentrations of RCRA metals were attributable to background, except selenium. However, the selenium concentration was below ADEC Method Two cleanup levels.

3.3 Cleanup Levels

The soil cleanup levels applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Remaining Contamination

Based on the available information, soil impacted above applicable cleanup levels was removed from the site; no contaminants of concern are known to remain.

4.0 SITE STATUS AND REMEDY

The extent of investigative effort conducted at this site is considered adequate to support selection of a remedy. Based on the available information and prior removal action already conducted, No Further Action (NFA) will be conducted at this site.

FORMER BRAC PARCEL 78 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Building 318 Pesticide Storage located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 78. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-052
- ADEC Database Identification (RecKey) 200033X133601 CS.

This site was previously used as a trailer court, with Building 318 serving as a washroom facility. Pesticides were reportedly stored at the building. The trailer court and Building 318 were removed in 1979. The site is currently a gravel parking area with head-bolt connections.

2.0 SITE LOCATION

The site is located in the Mid Post Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 195801, Easting 201489.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on East Post Road. Bear left on Pine Road. Travel east approximately 600 ft and turn north toward the site. The site is in the gravel parking area east of Buildings 319 and 320.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report.
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely.
- 3. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).
- 4. Jacobs (April 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (Page 15-1).

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- 5. Jacobs (August 2000) Remedial Investigation/ Removal Action, Fort Greely, Alaska (page 7-6).
- 6. Jacobs (November 2001) Limited Risk Evaluation, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 78 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing available documentation listed above dated from 1990 to 1992.

The prior location of Building 318 was approximated based on available information, and sampling locations were selected based on likely areas of prior material storage and handling. Three 10-ft-deep test pits (TP-909, TP-910, and TP-911) were excavated at the site in 1998. Six samples were analyzed for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Organic Compounds/Pesticides (OCP), and Polychlorinated Biphenyls (PCBs). Two samples contained SVOC concentrations exceeding screening standards used at that time for one or more of the following: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pytene, and dibenzo(a,h)anthracene. Benzo(a)pyrene at 2.1 mg/kg in the TP-910 surface sample exceeded the ADEC Method Two ingestion cleanup level of 1 mg/kg. The other 4 samples did not detect any analyte concentrations above the detection limit of 0.3 mg/kg.

Two soil borings (AP-912 and AP-913) were then drilled to 11.0 to 11.5 ft to evaluate the lateral extent of Polynuclear Aromatic Hydrocarbons (PAH) contamination. One sample from the top 2 ft. contained benzo(a)pyrene at 0.082 mg/kg, which was above the screening levels used at that time, however, all detected concentration from these borings were well below ADEC Method Two cleanup levels. One of the other two samples, also collected in the top 2 ft., detected 0.051 mg/kg of benzo(a)pyrene. The third sample was taken at 5-6.5 ft. and did not exceed the 0.005mg/kg detection limit. Of the 19 PAH parameters tested, only 7 were detectable. All 7 detections resulted in estimated J-values less than 0.007 mg/kg).

Two more soil borings, AP-1181 and AP-1183, were drilled in 1999 to 17 and 10 ft bgs, respectively. Samples were analyzed for GRO, DRO, RRO, Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), and SVOCs. PAH compounds were not detected. All detected analyte concentrations were well below ADEC Method Two cleanup levels.

The results of investigation conducted at this site suggest that the one elevated detection of benzo(a)pyrene that exceeded the ADEC Method Two ingestion target represents de minimis contamination.



3.3 Cleanup Levels

The soil cleanup levels applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Remaining Contamination

Only one sample from this site contained a contaminant concentration above the ADEC Method Two cleanup level, and the exceedence could not be reproduced at follow-on sampling locations. The investigation results demonstrate that this elevated detection of benzo(a)pyrene represented a small localized occurrence, probably associated with the site being used as a parking area. The material represented by the sample is anticipated to have been removed as part of the test pit's Investigation Derived Waste (IDW). Based on the extensive investigation and follow-up evaluation conducted to address this data point, it does not represent an environmental concern. No detection exceeded the migration to groundwater screening levels.

4.0 SITE STATUS AND REMEDY

The extent of investigative effort conducted at this site is considered adequate to support selection of a remedy. Based on the available information, No Further Action (NFA) will be conducted at this site.

AIR CURTAIN INCINERATOR FORMER BRAC PARCEL 82 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Air Curtain Incinerator located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 82. The following database identifications apply to this site:

- Solid Waste Management Unit (SWMU) SWMU-15
- ADEC Database Identification (RecKey) 2000330010901 LUST

The air curtain incinerator, currently inoperative, had a 2,000-gallon fuel oil UST (Tank No. 445).

2.0 SITE LOCATION

The site is located near the current burn pit facility in the Northeast Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 193865, Easting 204591.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue.
 Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Shaw Avenue. Turn southeast on East Post Road and travel approximately 300 feet to the multiple road intersection. The site is located inside the fenced compound atop the knoll to the north of the intersection.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report.
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska.
- 3. Emcon (September 1994) UST Management Plan, Records Update, Final Report.
- 4. Brown and Root/Oil Spill Technology, Sept 1990, UST Site Assessment and Recommendations.
- 5. Oil Spill Technology (September 1994) UST Closure, UST Site Assessment and Recommendations (Facility ID No. Building 640).



- 6. Woodward Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska. (Table 5-1a).
- 7. U.S. Army Tank File for Tank 445 at Building 640.

3.2 Description of Site Characterization and Remedial Actions

This site was discussed in the Preliminary Assessment (PA) as associated with Building 640. The PA indicated the incinerator received solid waste intermittently. It was a modified air-curtain type incinerator device with a rectangular chamber approximately 30 feet by 16 feet by 12 feet deep. The sides and bottom were lined with refractory brick. A cage prevented blowing paper and litter. Dust was controlled by the air curtain.

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 82 as a Community Environmental Response Facilitation Act (CERFA) Category 2 parcel. Category 2 was defined as:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

There has been no documented evidence of release. Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

USACE reviewed the Underground Storage Tank (UST) Site Assessment report as part of the preparation of this fact sheet. A 2,000-gallon fuel oil UST was installed at Building 640 in 1976. The UST was tightness tested on 28 July 1993 and found to be tight. The tank was removed on July 14, 1994. Soil samples collected from the excavation were analyzed only for diesel range organics (DRO). Samples contained DRO ranging up to 9 mg/kg. This is below the ADEC Method Two cleanup levels. The site was recommended for no further action. Samples were not analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), or polynuclear aromatic hydrocarbons (PAH). Based on the tank tightness test and the results of DRO analysis, contamination at this site is unlikely.

3.3 Cleanup Levels

The soil cleanup levels applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

No further action (NFA) will be conducted at this site.

AERATION PAD NORTH FORMER BRAC PARCEL 86 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Aeration Pad North located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 86. The following database identification applies to this site:

• Solid Waste Management Unit (SWMU) – SWMU-33.

This site is not listed in the Army Environmental Database – Restoration (AEDB-R) or the ADEC Database.

Aeration Pad North, also known as "concrete aeration pad #2," is a 0.25-acre tract containing a concrete soil aeration pad. This site has been identified as SWMU No. 33. Since 1982 it has been used to temporarily store soils contaminated by petroleum products. The pad is 2,200 ft² and is bermed on three sides.

2.0 SITE LOCATION

The site is located in the Northeast Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 197044, Easting 202815.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on Evergreen Road. Cross through the intersection with Butternut Road. The site is approximately 400 ft east of Butternut Road and 100 ft north of Evergreen Road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. SAIC (Jan 1990) RCRA Facility Assessment PR/VSI Report.
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a, and Table 4-1, pages 4-1, 2).
- 3. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation Report (pages 10-22 to 10-28).

4. Jacobs (April 2001) Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 86 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. During the EBS, it was inferred that contamination could potentially have impacted soils surrounding the pad during heavy rains.

Three test pits (TP-832, TP 833, and TP-834) were excavated in 1997 to evaluate surface and subsurface soils around the aeration pad. Two soil samples were collected and analyzed from each test pit for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), and Semi-Volatile Organic Compounds (SVOCs). Maximum Petroleum, Oil, and Lubricants (POL) concentrations were 170 mg/kg RRO, 54 mg/kg DRO, and 9.2 mg/kg GRO. All detected analyte concentrations were below ADEC Method Two cleanup levels.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

SWMU No. 33 will be closed. Based on the available information, No Further Action (NFA) will be conducted at this site.

AERATION PAD SOUTH FORMER BRAC PARCEL 87 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Aeration Pad South located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 87. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-063
- Solid Waste Management Unit (SWMU) SWMU-32.

This site is not listed in the ADEC Database.

Aeration Pad South, also known as concrete aeration pad #1, is a 0.25-acre tract containing a concrete soil aeration pad. This site has been identified as SWMU No. 32. The pad is a 30- by 50-ft concrete building pad, which in recent times was used to temporarily store excavated soils contaminated by petroleum. The pad is bermed on 2.5 sides.

2.0 SITE LOCATION

The site is located in the Northeast Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 196744, Easting 202525.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road. Turn east on Evergreen Road. Cross through the intersection with Butternut Road. The site is approximately 300 ft east of Butternut Road and 100 ft south of Evergreen Road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. SAIC (Jan 1990) RCRA Facility Assessment PR/VSI Report.
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a, and Table 4-1, pages 4-1, 2).
- 3. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation Report (pages 10-28 to 10-36).

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- 4. Jacobs (Apr 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (Section 19).
- 5. Jacobs (April 2001) Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 87 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995. During the EBS, it was inferred that contamination could potentially have impacted soils surrounding the pad during heavy rains.

Three test pits (TP-835, TP 836, and TP-837) were excavated at the site in 1997. The test pits were used to evaluate the surface and subsurface soils around the aeration pad. Two samples from each test pit were collected and analyzed for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Semi-Volatile Organic Compounds (SVOCs). The maximum DRO concentration was 21 mg/kg. RRO, GRO, benzene, toluene, and xylenes were not detected. Benzo(a)pyrene was detected at 0.36 mg/kg, which exceeded the screening level being used at the time of the work.

The parcel was then changed to CERFA Category 2. Category 2 was defined as follows:

Areas where only storage of hazardous substances in amounts exceeding their reportable quantity or petroleum products exceeding 600 gallons has occurred, but no release, disposal, or migration has occurred.

Three more test pits were excavated in 1998 (TP-877 through TP-879) on the north and east side of the concrete aeration pad. Two samples were collected from each test pit. Trace concentrations of seven Polynuclear Aromatic Hydrocarbons (PAH) constituents were reported in five of the six samples. The highest concentration of benzo(a)pyrene was 0.002 mg/kg.

All analyte detections during 1997 and 1998 investigations were below ADEC Method Two cleanup levels.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

SWMU No. 32 will be closed. Based on the available information, No Further Action (NFA) will be conducted at this site.

BUILDING 601 DUMP SITE FORMER BRAC PARCEL 115 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as the Building 601 Dump Site located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 115. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-005
- ADEC Database Identification (RecKey) 199233X930601 CS.

This site is not listed as a Solid Waste Management Unit (SWMU).

During preparation of the Environmental Baseline Survey (EBS), several "Buried Dumps" were noted at this site location on a map dated 1953. On this map, Building 601 was proposed but had not yet been built. According to the map, the dumps were located north of Building 601. The materials disposed of in the dumps at the site, and the handling procedures at the site, were unknown.

2.0 SITE LOCATION

The site is located in the Admin Industrial Area approximately as follows.

- Fort Greely Local Grid: Northing 193351, Easting 201613.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. The site is located immediately north of the north end of Building 601 east of the intersection of First Street and Shaw Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. U.S. Army (Jan 1953) Full-sized Drawing: Site Plan New Post.
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).
- 3. Jacobs (Sept 1998) 1997 Site Investigation / Limited Remedial Investigation, Fort Greely, Alaska (pages 7-24 and 7-27).



- 4. Jacobs (Apr 1999) 1998 Remedial Investigation Report, Fort Greely, Alaska (Section 29).
- 5. USACE (20 May 2004) Class V Underground Injection Control Engineers Assessment and Inventory Report (Section 3.4.4 and Table 8).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 115 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

According to EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various hazardous waste management compliance reports dated from 1987 to 1995.

A geophysical survey was conducted in 1997 to identify anomalies at the site and determine an investigation approach. The site was being used as a weigh station in 1997. Four anomalies were identified surrounding the weigh station scale.

In 1998, four test pits (TP-949 through TP-952) were excavated, field screened, and sampled (one at each anomaly). Scrap metal was found while digging. Soil samples were analyzed for diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOC), organic compounds—pesticide (OCP), polychlorinated biphenyls (PCBs), and total metals. Methylene chloride was detected but was determined to be the result of laboratory contamination. Trace concentrations of pesticides were detected. PCBs were not detected. All analyte detections were below ADEC Method Two cleanup levels and/or within background ranges (metals). The metal debris found at 3.5 ft bgs in test pits TP-949, TP-951, and TP-952 is believed to represent the source of the anomalies identified by the 1997 geophysical survey. The source of the anomaly at TP-950 was not identified during the test pit excavating program.

The 2004 Underground Injection Control (UIC) Assessment and Inventory indicates that a drywell exists at this site. The drywell is connected to the existing 30-ton truck scale and Building 616, and collects rainwater and snowmelt from beneath the scale platform.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

Based on the available information, No Further Action (NFA) will be conducted at this site.

ALYESKA FUEL SPILL FORMER BRAC PARCEL 119 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as the Alyeska Fuel Spill located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 119. The following database identifications apply to this site:

• Army Environmental Database – Restoration (AEDB-R) – FGLY-062.

This site is not a Solid Waste Management Unit (SWMU) and is not listed in the ADEC database.

Site 119 is a 2-acre tract along the Alyeska Pipeline corridor just north of Big Delta Avenue. In June 1976, between 1,000 and 2,000 gal of diesel were estimated to have spilled when an Alyeska Pipeline Service Company-owned bulldozer ruptured a 4-in.-diameter, Army-owned fuel pipeline. The spill was cleaned up by Alyeska. No ADEC closure letter was available during the Environmental Baseline Survey (EBS).

2.0 SITE LOCATION

This site is located in the Northwest Undeveloped Geographic Area approximately as follows.

- Fort Greely Local Grid: Northing 192415, Easting 197280.
- <u>Physical Address</u>: The site is located near the intersection of the Richardson Highway and Big Delta Avenue. From the intersection, travel approximately 400 ft east on Big Delta Avenue. Turn north along the Alyeska Pipeline corridor and travel approximately 400 ft to the former intersection of the Alyeska Pipeline corridor and the former Army Pipeline corridor.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

- 1. U.S. Army (June 1976) Pollution Incident Report, Alyeska-Caused Leak.
- 2. Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).



3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 119 as a Community Environmental Response Facilitation Act (CERFA) Category 5 parcel. Category 5 was defined as follows:

Areas where storage, release, disposal, or migration of hazardous substances or petroleum products has occurred, and removal or remedial actions are underway, but all required actions have not yet been implemented.

Between 1,000 and 2,000 gal of diesel was reportedly released. The fuel spread over an approximately 50 ft by 50 ft area. The spill was reportedly cleaned up by Alyeska Pipeline Service Company. Alyeska excavated contaminated soil to 2.5 ft bgs in the spill area and thermally processed the soil. No closure letter was available from ADEC at the time of the EBS preparation.

CERFA definitions were later changed. This site was re-categorized as CERFA 2: areas where a release of petroleum product only has occurred.

Site 119 was investigated in 1998 under the BRAC program. Three soil borings were drilled and one test pit was excavated. Borings extended to 31.5 to 61.5 ft bgs depending on the boring. Samples were analyzed for diesel range organics (DRO), gasoline range organics (GRO), residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), polynuclear aromatic hydrocarbons (PAH), and total organic carbon (TOC). All detected analytes were below ADEC Method Two cleanup levels.

3.3 Summary of Remaining Contamination

No remaining contaminants of concern are known to exist at this site.

4.0 SITE STATUS AND REMEDY

Based on the available information and remedial actions conducted, No Further Action (NFA) will be conducted at this site.

FIELD BETWEEN POL FACILITY AND BUILDING 615 FORMER BRAC PARCEL 131 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Field Between Petroleum, Oil, and Lubricants (POL) Facility and Building 615 located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 131. The site is not listed in known environmental databases.

This site consists of the field area between the existing BLDG 617 POL facility and Building 615.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 193690, Easting 202384.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Pass the POL Facility (on north side of Shaw Ave.). Site is north of Shaw Avenue between the fenced compound with large Aboveground Storage Tanks (ASTs) and Building 615.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Woodward-Clyde (1/24/97) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 131 as a Community Environmental Response Facilitation Act (CERFA) Category 1 parcel. Category 1 was defined as follows:

Areas where no storage for one year or longer, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent properties). Additionally, includes areas where no evidence



exists for the release, disposal, or migration of substances or petroleum products; however, the area has been used to store less than reportable quantities of hazardous substances (40 CFR 302.4) or 600 or fewer gallons of petroleum products.

As a result, no further investigation was conducted under BRAC. Per EBS Table 5-1a and Table 2-1, the site was evaluated by interview, visual inspection, and aerial photograph analysis.

3.3 Summary of Contamination

No contaminants of concern are known to exist at this site. Note, however, that an investigation is currently underway (in 2003) at the BLDG 617 POL facility. The results of that investigation could potentially show an impact onto, or beneath, this site.

4.0 SITE STATUS AND REMEDY

Based on the available information, No Further Action (NFA) will be conducted at this site. If the results of the 2003 investigation at the adjacent BLDG 617 POL Facility indicate contamination from the POL Facility has impacted the subject site, then that contamination will be addressed under the POL Facility work. This site (former BRAC Site 131) will be closed.

BUILDING 133 UST NO. 410 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Building 133 UST No. 410 located at Fort Greely, Alaska. This site is not listed in known environmental databases.

UST No. 410 was a 300-gal heating oil Underground Storage Tank (UST) removed from Building 133 in 1996. The tank was installed in 1985 and reportedly held gasoline prior to being used for heating oil.

2.0 SITE LOCATION

Building 133 is located on Old Post approximately as follows.

- Fort Greely Local Grid: Northing 198067, Easting 200648.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on Robin Road and travel to Old Post. Turn west on D Street, then north on 2nd Street. Building 133 is on the west side of the road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army Tank Files, FGA Tank 410 Building 133
- 2. Rockwell Environmental Services (22 September 1997) Heating Oil Tank No. 410 Closure Report, Building 133, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

UST No. 410 was tightness tested in 1987 and was not leaking. A site assessment was performed on 29 July 1997 at the time the tank was removed. During removal, impacted soil was identified at the fill pipe area. Ten cubic yards of impacted soil was hauled to the designated containment area at the Fort Greely landfill. Two samples were collected from the excavation and analyzed for diesel range organics (DRO), gasoline range organics (GRO), benzene, toluene, ethylbenzene, xylenes (BTEX), and lead. DRO was detected at concentrations up to 158 mg/kg. GRO was detected up to 1.76 mg/kg. Benzene was not detected. All detected analyte



concentrations were below ADEC Method Two cleanup levels. An ADEC closure letter reportedly exists for this site.

3.3 Cleanup Levels

The soil cleanup levels applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

Based on the available information, No Further Action (NFA) will be conducted at this site.

BUILDING 510 UST NO. 431 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Building 510 Underground Storage Tank (UST) No. 431 located at Fort Greely, Alaska. This site is not listed in known environmental databases.

Building 510 was located immediately west of the tennis courts in the Northwest Undeveloped Area. A 500-gal heating oil UST (Tank No. 431) was removed from the north side of the building. Building 510 has been removed.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 192680, Easting 200973.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. The site is west of Building 503.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. U.S. Army Tank Files, FGA Tank 431 Building 510.
- 2. Oil Spill Technology, Inc. (September 1994) Underground Storage Tank Closure UST Site Assessment and Recommendations, Facility ID No. 510.

3.2 Description of Site Characterization and Remedial Actions

UST No. 431 was removed in July 1994. Six soil samples were collected from the excavation and stockpiled soil and analyzed for Diesel Range Organics (DRO). The maximum DRO concentration was 5.3 mg/kg. This is below the ADEC Method Two cleanup levels. The site was recommended for closure.

3.3 Cleanup Levels

As a heating oil tank, UST No. 431 was not regulated. If contamination exists at the site, then the contamination would be regulated by 18 AAC 75. The soil cleanup levels that would be



applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

Samples were not analyzed for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Polynuclear Aromatic Hydrocarbons (PAH). However, based on the DRO results, contamination at this site above ADEC Method Two cleanup levels is unlikely. No contaminants of concern are known to exist at this site.

4.0 SITE STATUS AND REMEDY

Based on the available information, No Further Action (NFA) will be conducted at this site.

CLASSIFIED DOCUMENTS BURN CAGE FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as the Classified Documents Burn Cage located at Fort Greely, Alaska. The following database identification applies to this site:

• Solid Waste Management Unit (SWMU) - SWMU-16.

This site consists of the aboveground burn cage located inside the fenced area that also contains the former Base Realignment and Closure (BRAC) Parcel 89 Refuse Burn Pit and Parcel 82 Air Curtain Incinerator. The burn cage was used to burn classified documents.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 193917, Easting 204633.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on East Fifth Street. Turn east on Shaw Avenue and travel to the intersection with East Post Road. The site is north of the intersection through a gate in a surrounding fenced enclosure.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report.
- 2. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Fort Greely, Alaska (Table 4-1, page 4-1).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. This site was not listed as a BRAC Parcel; however, it was identified in the EBS as a Solid Waste Management Unit (SWMU).



The site contains a metal cage set atop a stand that was used to burn classified documents. As such, there are no identified environmental concerns associated with this piece of equipment.

4.0 SITE STATUS AND REMEDY

SWMU No. 16 will be closed. Based on the available information, No Further Action (NFA) will be conducted at this site.

DRUM CACHE 2002 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This fact sheet describes the site generally known as Drum Cache 2002 or "CWM Drum Site" located at Fort Greely, Alaska. The following database identifications apply to this site.

• ADEC Database Identification (RecKey) – 2002330910001 CS

Approximately 20 buried 55-gallon drums were uncovered while excavating fill material for the construction of the Missile Test Bed at Fort Greely on 04 April 2002.

2.0 SITE LOCATION

The site is located at the following grid coordinate: Grid WF 626912 – Ft Greely, Alaska, approximately as follows.

- <u>Latitude & Longitude</u>: 63.934873 N Latitude, 145.742272 W Longitude
- <u>Physical Address</u>: The site is located approximately 1.4 miles due south of the intersection of Big Delta Avenue and First Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. 103rd Civil Support Team WMD (November 2002) Closing Report.
- 2. Roy F. Weston, Inc. (April 2002) Preliminary Draft Technical Memorandum, Phase II Site Inspection, Survey, and Equipment Decontamination Activities at the CWM Drum Site, Fort Greely, Alaska.
- 3. Roy F. Weston, Inc. (August 2002) Technical Memorandum, Acidic Soil Neutralization Report at the Ground Based Midcourse Defense Site, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

On 10 April 2002 the drum site was made off-limits and all personnel were evacuated. The drums were dated from approximately 1940. Markings on the drums indicated they were used by the U.S. Chemical Warfare Service, which was deactivated in 1946.

The 103rd Civil Support Team (CST) of Alaska National Guard was mobilized. A USACE Rapid Response Contractor, Roy F. Weston, Inc., was also mobilized. A site evaluation was conducted



on 11 April 2002. Eight soil samples were collected from stained soil at the drum area and analyzed for Volatile Organic Compounds (VOCs,) metals, Chemical Weapons Materials (CWM), and thiodiglycol. VOCs were not detected. Metals concentrations were consistent with background levels. Results for CWM (mustard gas and Lewisite) were reportedly non-detect or negative.

Four additional samples were collected on 23 April 2002 and analyzed for CWM, thiodiglycol, VOCs, Semi-Volatile Organic Compounds (SVOCs), metals, pH, pesticides, polychlorinated biphenyl (PCBs), and herbicides. Metal concentrations were within background levels. All other results were non-detect except for one herbicide detection below the method reporting limit and three orders of magnitude below regulatory criteria. Samples showed low pH (acidic) soil ranging from 2.48 to 4.01 pH units.

Two additional samples were collected from stockpiled soil and analyzed for SVOCs, pH, pesticides, PCBs, and herbicides. All results were non-detect except for one herbicide detection below the method reporting limit and three orders of magnitude below regulatory criteria. Results of pH analysis ranged from 6 to 8 pH units.

Based on the site observations and analytical results, it was hypothesized that the site may have been used for chemical demilitarization and washing using a rinse material termed DANC (Decontaminating Agent, Non-Corrosive).

Soil neutralization was conducted from 26 June 2002 to 3 July 2002. Approximately 2,000 cubic yards of soil was removed and stockpiled adjacent to the excavation. The excavation extended to approximately 28 feet bgs. The pH in soil at the base of the excavation was measured at approximately 4 pH units, still below the remediation target. To provide for pH stabilization of this deeper acidic soil to occur over time, 9,450 pounds of lime was placed in the base of the excavation and mixed with 2,000 gallons of water. This lime and water was mixed with the basal 2 to 3 feet of soil at the bottom of the excavation. Infiltration of precipitation through this material over time is expected to stabilize the pH of the deeper impacted soil.

A Lang Insitu blender and excavator were used to mix the excavated soil with 34,300 pounds of soda ash and 17,000 gallons of water. This soil was placed in lifts back into the excavation.

Twenty-one confirmation samples were collected and analyzed for pH during the work. Based on the results, the majority of the affected soil was treated to pH levels greater than 5 pH units. Marginally affected soil with pH levels at approximately 4 pH units remain below approximately 30 feet bgs in the bottom of the excavated area and at varying depths around the periphery of the excavated area; this soil is expected to be neutralized over time by excess neutralization agent added to the soil.

4.0 SITE STATUS AND REMEDY

Based on the available information and remedial actions conducted, no further action (NFA) will be conducted at this site. The extent of investigative effort conducted at this site is considered adequate to support this decision.

FINAL JUNE 2005

ATTACHMENT

3

NO FURTHER REMEDIAL ACTION PLANNED (NFRAP) SITES -ADMINISTRATIVE CONTROLS SITES FACT SHEETS

No Further Remedial Action Planned (NFRAP) Sites			
Site Name	BRAC Parcel ID	Site Name	BRAC Parcel ID
World War II Tent Site	114	Landfill #7	-
Bldg 501 USTs	-	Station 20 + 70 POL Site	-
Bldg 605 CRTC	-	Station 24 + 00 POL Site	-
Landfarm	-	Station 9 + 50 POL Site	-
Landfill #6	-		

WORLD WAR II TENT SITE FORMER BRAC PARCEL 114 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as the World War II Tent Site located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program as Parcel 114. The site is not listed in known environmental databases.

This site consists of an approximately 42 acre forested area within the South Undeveloped Area (identified as former BRAC Parcel 1). The site consists of six clearings identified as former experimental training areas. These clearings are former bivouac areas. The site was reportedly used for equipment testing and engineering/scientific experiments during World War II.

2.0 SITE LOCATION

The site is located approximately as follows.

- Fort Greely Local Grid: Northing 190438, Easting 198558
- <u>Physical Address</u>: The site is in a forested area south of Big Delta Avenue and is accessed via a trail extending south from the post gate.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Woodward-Clyde (24 January 1997) U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey (EBS) Report, Fort Greely, Alaska (Table 5-1a)
- 2. Jacobs (April 1999) 1998 Remedial Investigation Report (Table ES-1, page ES-7) (Section 28.0, pages 28-1 and 28-2).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 114 as a Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

These former testing areas have not been used for over 50 years. According to EBS Table 5-1a and Table 2-1, Woodward-Clyde conducted interviews and visual inspections, and reviewed aerial photographs. According to EBS Table 2-5, a visual survey was conducted by automobile. The EBS indicated practices may have involved hazardous substances, ammunition, and other unknown activities. The EBS recommended additional evaluation, including soil sampling.

Parcel 114 was evaluated further during the 1998 remedial investigation under BRAC. Additional aerial photograph reviews and interviews were conducted. This review suggested activities in the subject area were limited to troop maneuvers and use of small arms. The identified clearings appear to be former bivouac sites. The investigation did not reveal contaminant sources at Parcel 114, and invasive field investigation was not conducted.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site. However, a potential for the presence of small arms ammunition is recognized. The military munitions are not considered solid waste because they were used for their intended purpose [40 CFR 266.202(a)(1)(i)]. The records indicate only small arms (rifle/pistol) ammunition might be present. The area was a tent/bivouac area, not a disposal area or range (so even small arms ammunition is not a high possibility). There is no reason to believe that grenades or other explosives are in the area.

4.0 SITE STATUS AND REMEDY

No further action (NFA) is required for this site. Administrative Controls (ACs) have been established at the site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for small arms ammunition to exist at this site. If future land disturbance activities at the site encounter munitions, they will be properly remediated or disposed of in accordance with applicable regulations. Any future workers in this area will be given a general warning that encountering small arms is a possibility when excavating.

In addition to the ACs, a cultural resources survey must occur prior to any land disturbance on this site. The cultural resources survey will look for unexploded ordnance among other things associated with the military training area. Explosive Ordnance Disposal (EOD) personnel are only brought out when large rounds or explosives are encountered. An EOD survey is only done on active and known ranges. A cultural resources survey includes minor test pitting to determine if evidence of human activity can be found at the site. An individual who has extensive military history experience and is qualified to determine when EOD is needed must complete the cultural resource survey.

BUILDING 501 USTS FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 501 Underground Storage Tanks (USTs) located at Fort Greely, Alaska. The following database identification applies to this site.

• ADEC Database Identification (RecKey) – 1995330029801 LUST.

Building 501 (post headquarters) contained two USTs (Tanks No. 430 and No. 474). The USTs reportedly supplied diesel fuel for backup generators.

2.0 SITE LOCATION

Building 501 (post headquarters) is located in the Admin/Industrial Area at the northwest corner of the intersection of First Street and Big Delta Ave. The site is located approximately as follows.

- Fort Greely Local Grid: Northing 192289, Easting 201310.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. The site is the post headquarters at the northwest corner of the intersection of Big Delta Avenue and First Street.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Oil Spill Technology (August 1995), UST Removals, Site Assessments, Recommendations, and Closures.

USACE (20 May 2004) Class V Underground Injection Control Engineers Assessment and Inventory Report (Section 3.6.1 and Table 8).

3.2 Description of Site Characterization and Remedial Actions

UST No. 474 was a 300-gal diesel tank and UST No. 430 was a 5,000-gal diesel tank, both located north of Building 501. UST No. 474 was removed 7 August 1995. No contamination was identified during removal. Three excavation samples were collected and analyzed for Diesel Range Organics (DRO). DRO was not detected. Approximately 30 yd³ of excavated soil was placed back into the excavation. UST No. 474 was replaced with current Tank No. 430A.



UST No. 430 was removed 15 August 1995. Fort Greely Department of Public Works (DPW) tank file information indicates UST No. 430 was not tightness tested because of a leak in the line off the fill tube that resulted in a spill. Minor contamination was reportedly identified by field screening during the removal. Four excavation samples were collected and analyzed for DRO. The highest concentration was 6.5 mg/kg, well below the ADEC Method Two cleanup levels. Approximately 80 yd³ of excavated soil was placed back into the excavation.

Samples were not analyzed for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) or Polynuclear Aromatic Hydrocarbons (PAH). As backup generator tanks, the USTs were regulated by 18 AAC 78 ADEC UST Regulations.

The 2004 Underground Injection Control (UIC) Assessment and Inventory indicates this building contains a disposal well and a septic system (tank and leach field). The disposal well was for a decontamination shower in the event of a nuclear accident or attack. BLDG 501 was the command and control center for catastrophic emergencies and the basement was outfitted with a decontamination shower. The shower drained to a septic tank and leach pit if used for training or non-nuclear accidents. In the event of a nuclear decontamination shower was needed, an ejector pump would pump the rinse water from the shower drain to a 3" galvanized steel pipe disposal well that extended 25 feet below the surface to a vault pit. The top of the disposal well was covered with a thick concrete slab to prevent surface contamination. There is no indication that this system was ever used except for testing purposes. The septic system is a redundant system that could be used in the event the wastewater treatment plant was not operational. It has not been used except for testing and training.

3.3 Cleanup Levels

The soil cleanup levels applicable to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

Although samples were not analyzed for BTEX and PAH, the DRO results indicate contamination at this site above current ADEC Method Two cleanup levels is unlikely. ADEC considers these USTs to be closed.

4.0 SITE STATUS AND REMEDY

- 1. Based on the available information, No Further Action (NFA) will be conducted to address this site.
- 2. A UST remains at the site. Consequently, Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.

BUILDING 605 CRTC FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Building 605 Cold Regions Testing Center (CRTC) located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-004
- ADEC Database Identification (RecKey) 199233X930602 CS.

Building 605 was the CRTC shop. The building housed the post vehicle maintenance shop at the south end, and a former paint bay, battery storage, wash rack, electric motor repair shop, and vehicle warm storage in the north half.

2.0 SITE LOCATION

Building 605 is located in the Admin/Industrial Area, north of Arctic Avenue and just west of the Building 606 power plant, approximately as follows.

- Fort Greely Local Grid: Northing 193060, Easting 202040.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Arctic Avenue. The site is approximately 700 ft east on the north side of Arctic Avenue.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska
- 2. U.S. Army Tank File for Tank 482 at Building 605.

3.2 Description of Site Characterization and Remedial Actions

At the time of the Preliminary Assessment (PA), wastes (oil, antifreeze, etc.) were stored at a hazardous waste/materials accumulation point inside the building. Batteries were filled and charged inside the building; floor drains were reportedly sealed off to prevent leakage into the sewer system. The drain in the paint bay was connected to sewer leading to the wastewater treatment facility; the paint bay was not in use at the time of the PA. The wash bay was connected to an oil-water separator, which was also connected to the sewer line. No spills were known to have occurred at the site.



A 500-gal used oil Underground Storage Tank (UST) (Tank No. 482) was removed from the site in approximately 1986. No additional information was found in the tank file. A site assessment report was not found in the Fort Greely Department of Public Works (DPW) or U. S. Army Corps of Engineers (USACE) documentation.

3.3 Cleanup Levels

If contamination exists at the site, ADEC Regulations 18 AAC 75 would apply. The soil cleanup levels that would be applied to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone.

3.4 Summary of Contamination

The UST was removed prior to enactment of ADEC's regulated tank program and prior to implementation of ADEC UST Regulations 18 AAC 78. Apparently, no UST site assessment was conducted. Although no documented evidence of release is available, the nature of activities and use of this site suggest that a potential for contamination exists. Contaminants of Potential Concern (COPCs) are the used oil parameters Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Polychlorinated Biphenyls (PCBs), pesticides, and Resource Conservation and Recovery Act (RCRA) metals.

4.0 SITE STATUS AND REMEDY

The following actions have been or will be conducted to address Building 605 CRTC.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations. A large conservative AC area is enforced by FGA that covers all possible locations of the former UST.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

LANDFARM (UST SOIL STOCKPILE BIOREMEDIATION) FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as "Landfarm" or "Underground Storage Tank (UST) Soil Stockpile Bioremediation" located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-029
- ADEC Database Identification (RecKey) File 141.38.037.

Petroleum-contaminated soil excavated during UST removals at Fort Greely and the Black Rapids facility was stockpiled at the Landfill No. 7 area south of the main cantonment. This consisted of approximately 12,100 yd³ of diesel-contaminated soil and approximately 1,190 yd³ of gasoline-contaminated soil. A landfarming operation was conducted to remediate the contaminated soil.

2.0 SITE LOCATION

The soil was landfarmed near the current Fort Greely landfill (Landfill No. 8) atop Landfill No. 7 ("1970s Landfill"). The site is located approximately 2 miles south of the main cantonment area, accessed via Landfill Road.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. Nugget Construction, Inc. (March 6, 1995) Remedial Action Report for Phase I UST Soil Stockpile Bioremediation, Ft. Greely, Alaska.
- 2. Nugget Construction, Inc. (May 1998) Remedial Action Report, Phase II Landfarming Operation UST Stockpile Bioremediation, Ft. Greely, Alaska.
- 3. Amundsen Environmental Services (July 13, 2000) Sample/Test Stockpiled Soil Landfill, Ft. Greely, Alaska.
- 4. USAKA Environmental Office (May 10, 2002) Letter to Greg Light of ADEC titled "Disposition of Landfarmed Soil at Fort Greely, Alaska" in File No. 141.38.037.



3.2 Description of Site Characterization and Remedial Actions

The original landfarming operation was started in 1994 through a Corps of Engineers contract with Nugget Construction, Inc. About 8500 cubic yards of fuel-contaminated soils were originally landfarmed at the site. Because the site was a former landfill and the depth to groundwater was determined to be about 270 feet below ground surface, ADEC waived the requirement for a bottom liner at the site. The landfarming operation covered about 5 acres within the closed landfill and about 11,700 linear feet of windrows were constructed at the site. The windrows were tilled and mixed 4 times in 1995 and 5 times in 1996. Confirmation sampling that was conducted in 1995 showed that DRO contamination exceeded the 100 mg/kg cleanup level in all 48 samples collected with the highest concentration being 508mg/kg. GRO and BTEX contamination was non-detect in most samples. Interim samples collected in 1996 after 9 tilling operations showed that only 13 of the 48 sampling locations contained DRO in excess of the 100 mg/kg cleanup level. Closure sampling in 1997 showed that DRO contamination exceeded the 100 mg/kg cleanup level at only 2 of the 48 sampling locations. The remediated gravel soils were used as surface coarse on numerous roads on Fort Greely and the remaining material was used as daily cover in Fort Greely Landfill 8.

In 1999, an additional 1070 cubic yards of POL contaminated soil from various locations on FGA was subsequently moved to the landfarm. The windrows were rolled twice in 1999 and in 2000, Amundsen Environmental Services collected confirmation soil samples from the windrows. Soil samples were collected from 26 areas and 6 samples contained DRO in excess of the 100 mg/kg cleanup level. No other contaminant concentrations exceeded cleanup regulations and metals were within background concentrations.

In 2001 the windrows were turned over and field screened using PetroFlag Test Kits. Of the 138 areas field screened, 43 areas were selected for sampling. The same locations as the 2000 sampling remained contaminated above the 230 mg/kg level. These areas were excavated, hauled to Fairbanks, thermally treated, and subsequently hauled to the Fort Wainwright landfill. Approximately 60 cubic yards of soil was treated.

In 2003, ADEC approved use of the remaining 1010 cubic yards of landfarmed soil for daily cover at FGA Landfill 8.

4.0 SITE STATUS AND REMEDY

The extent of investigative effort conducted at this site is considered adequate to support No Further Action (NFA) to be conducted at this site. However, the site is co-located with Landfill No. 7 and therefore administrative controls (ACs) have been established in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.

The treated soil was used for landfill cover material at Landfill No. 7 and Landfill No. 8.

LANDFILL NO. 6 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Landfill No. 6 located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-012
- Solid Waste Management Unit (SWMU) SWMU No. 43
- ADEC Database Identification File 141.38.021.

Landfill No. 6 is the Family Housing Landfill, covering approximately 11 acres. Use of the landfill reportedly began in the mid-1950s and ceased in 1960. The landfill has since been covered with soil and graded. However, it was reported that a trench had remained open until 1983. At the time of the Preliminary Assessment (PA) in 1992, the area was used for snow storage.

2.0 SITE LOCATION

The site is located approximately 1,200 ft south of the family housing area in the main cantonment, approximately as follows:

• Fort Greely Local Grid: Northing - 190012, Easting – 201635.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska
- 3. Woodward-Clyde (March 1996) Postwide Site Investigation, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

The original purpose of this landfill was to provide a disposal site for grubbing material and debris from construction of housing. The landfill is believed to have accepted sanitary wastes (domestic garbage and septic tank wastes) buried in trenches. It is not known if other types of waste were placed in the landfill.

Four soil borings were drilled to 41.5 to 42.0 ft below ground surface (bgs) around the perimeter of the landfill in 1995 to investigate for leachate. Thirty-six samples were collected. Analyses



included Total Petroleum Hydrocarbon (TPH), Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), chlorinated herbicides, pesticides, Polychlorinated Biphenyls (PCBs), and metals.

Maximum concentrations of DRO (33 mg/kg) and GRO (58 mg/kg) are below ADEC Method Two cleanup levels. Trace concentrations of di-n-butyl phthalate and bis(2-ethylhexyl) phthalate were detected well below ADEC Method Two cleanup levels. Chlorinated herbicides were not detected.

Methylene chloride was detected up to 0.023 mg/kg, slightly exceeding the ADEC Method Two migration to groundwater cleanup level. The report attributed this analyte to most likely be the result of laboratory contamination. No other VOC detections exceeded ADEC Method Two cleanup levels.

Maximum detected concentrations of the pesticides alpha BHC (0.002 mg/kg), delta BHC (0.002 mg/kg), 4,4-DDD (0.065 mg/kg), endosulfan (0.003 mg/kg), 4,4-DDT (0.36 mg/kg), 4,4-DDE (0.04 mg/kg), and dieldrin (0.009 mg/kg) were below ADEC Method Two cleanup levels. PCBs were not detected.

The maximum detected concentration of arsenic (41 mg/kg) and chromium (98 mg/kg) exceed ADEC Method Two cleanup levels. The maximum arsenic concentration is only slightly outside the background range (4 to 40 mg/kg), and probably actually represents background. Only one chromium sample result out of 44 exceeded the background range of 8 to 43 mg/kg for Fort Greely.

3.3 Cleanup Levels

Soil cleanup levels applicable to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone. Regulatory levels for groundwater are the 30 January 2003 ADEC Groundwater Cleanup Levels contained in 18 AAC 75.345 Table C.

3.4 Summary of Contamination

The types and quantities of waste materials placed in Landfill No. 6 are not known definitively, although construction debris and sanitary wastes are expected to have been placed in the landfill. Contaminants of Potential Concern (COPCs) include solid waste as well as methane, petroleum products, VOCs, SVOCs, PCBs, pesticides, and metals. Groundwater at this site has not been investigated.

4.0 SITE STATUS AND REMEDY

The following actions have been or will be conducted to address Landfill No. 6.

- 1. The accurate location of the landfill will be determined.
- 2. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base

Fort Greely, Alaska

locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.

- 3. An additional AC has been established for the area to the northeast of the landfill. The area is shown in the figure titled Administrative Control Areas in Attachment 5. No new water wells can be sited in this area. Groundwater flows northeast underneath FGA and since this landfill is not lined, there is potential that some contaminants could migrate to groundwater.
- 4. If FGA is ever transferred to another agency or an outside party, formal Institutional Controls (ICs) will be implemented at the site. These ICs will provide notification of restrictions for industrial/commercial exposure and the potential hazards associated with disturbing the landfill. These more stringent ICs will take the form of deed restrictions or similarly stringent site requirements under official post land documentation. This added level of control is appropriate because of the nature of the site as a landfill where materials placed therein are unknown, thereby presenting a greater risk to human health and the environment than other sites monitored only under the AC program.
- 5. The site will be included in 5-yr reviews to periodically verify compliance with the ACs and ICs.
- 6. Because this landfill was not operated under an ADEC permit, this site will be regulated by ADEC under the Contaminated Sites program, however closure requirements under 18 AAC 60 will apply.

LANDFILL NO. 7 FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska (FGA).

This fact sheet describes the site generally known as Landfill No. 7 located at Fort Greely, Alaska. The following database identifications apply to this site:

- Army Environmental Database Restoration (AEDB-R) FGLY-022
- Solid Waste Management Unit (SWMU) SWMU No. 13, SWMU No. 37
- ADEC Database Identification (RecKey) File 141.38.022.

Landfill No. 7 is also termed the "1970's Landfill." It included a regular landfill area (SWMU No. 37) and a construction debris trench (SWMU No. 13).

2.0 SITE LOCATION

Landfill No. 7 is located immediately east of the currently active Landfill No. 8, which is located approximately 2 miles south of the main cantonment. The site is accessed via Landfill Road east and south of the cantonment.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following documents contain information about this site:

- 1. SAIC (January 1990) RCRA Facility Assessment PR/VSI Report
- 2. CH2M Hill (December 1992) Preliminary Assessment, Fort Greely, Alaska
- 3. Nugget Construction, Inc. (March 6, 1995) Remedial Action Report for Phase I UST Soil Stockpile Bioremediation, Ft. Greely, Alaska
- 4. Woodward-Clyde (March 1996) Postwide Site Investigation, Fort Greely, Alaska
- 5. Nugget Construction, Inc. (May 1998) Remedial Action Report, Phase II Landfarming Operation UST Stockpile Bioremediation, Ft. Greely, Alaska
- 6. Jacobs (June 2001) 2000 Thermal Treatment Completion Report, Fort Greely, Alaska.

3.2 Description of Site Characterization and Remedial Actions

SWMU No. 37 (Landfill No. 7) was operated from 1976 through 1978. The landfill is believed to have accepted sanitary wastes (domestic garbage and septic tank waste), refuse ash,



construction/demolition debris, barrels, tires, batteries, and scrap vehicles. Wastes were placed in trenches. The landfill was approximately seven acres. Use of Landfill No. 7 ceased in 1978; it was covered with soil and graded. The area is now permitted to receive Construction and Demolition (C & D) waste. The C & D waste is placed on top of the old landfill and is periodically covered with soil.

SWMU No. 13 was a construction debris trench that accepted debris from 1988 through 1989. This trench was located in the southeast section of Landfill #7.

The Landfill No. 7 area was used as a site for landfarming petroleum-contaminated soils from 1994 through 1996. That project is described under a separate fact sheet titled "Landfarm."

The Landfill No. 7 area was used again under the former BRAC program as a staging area for petroleum-contaminated soil stockpiles and thermal processing of soil that was excavated from the Robin Road Fuel Spill, Evergreen Road Petroleum, Oil, and Lubricants (POL) Facility, and the North Delta Tank Farm. See the fact sheet titled Landfarm in Attachment 2A.

3.3 Cleanup Levels

Soil cleanup levels applicable to this site are the 30 January 2003 ADEC Method Two Soil Cleanup Levels contained in 18 AAC 75.341 Tables B1 and B2 for the "Under 40-Inch" precipitation zone. However, note that ADEC has specifically approved the use of soil treated atop the landfill area under prior projects as cover material. Regulatory levels for groundwater are the 30 January 2003 ADEC Groundwater Cleanup Levels contained in 18 AAC 75.345 Table C.

3.4 Summary of Contamination

The types and quantities of waste materials placed in Landfill No. 7 are not known definitively, although sanitary wastes and construction/demolition debris are known to have been placed in the landfill. Contaminants of Potential Concern (COPCs) include solid waste as well as methane, petroleum products, VOCs, SVOCs, PCBs, pesticides, and metals.

4.0 SITE STATUS AND REMEDY

The following actions have been or will be conducted to address Landfill No. 7.

- 1. Documentation will be reviewed to determine the accurate locations of the former landfill boundaries.
- 2. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the contaminated area, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities at the site encounter contamination, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 3. An additional AC has been established for the area to the northeast of the landfill. The area is shown in the figure titled Administrative Control Areas in Attachment 5. No new water



wells can be sited in this area. Groundwater flows northeast underneath FGA and since this landfill is not lined, there is potential that some contaminants could migrate to groundwater.

- 4. If FGA is ever transferred to another agency or an outside party, formal Institutional Control (ICs) will be implemented at the site. These ICs will provide notification of restrictions for industrial/commercial exposure and the potential hazards associated with disturbing the landfill. These more stringent ICs will take the form of deed restrictions or similarly stringent site requirements under official post land documentation. This added level of control is appropriate because of the nature of the site as a landfill where materials placed therein are unknown, thereby presenting a greater risk to human health and the environment than other sites monitored only under the AC program.
- 5. The site will be included in 5-yr reviews to periodically verify compliance with the ACs and ICs.
- 6. Because this landfill was not operated under an ADEC permit, this site will be regulated by ADEC under the Contaminated Sites program, however closure requirements under 18 AAC 60 will apply.

STATION 20+70 POL SITE FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Station 20+70 POL Site located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program, although it was not given a BRAC parcel identification number. The site is located within the boundaries of the former SM-1A pipeline corridor designated BRAC Parcels 90 and 132. This site is not listed in known environmental databases.

This site consists of an area along the former SM-1A pipeline and was identified as potentially contaminated with fuels. The site was identified while excavating to remove the SM-1A pipeline under the former BRAC program.

2.0 SITE LOCATION

The site is located in a wooded area on the northern portion of the main cantonment area, between East 5th Street and East Post Road about 350 ft east of East Fifth Street. The site is within the boundaries of former BRAC Parcels 90 and 132, located as follows.

- Fort Greely Local Grid: Northing 194020, Easting 203120.
- Physical Address: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Travel east approximately 600 ft and turn north on the gravel road extending between the Petroleum, Oil, and Lubricants (POL) Yard and the fenced material storage compound. Travel north approximately 700 ft to the northwest corner of the fence that surrounds the POL Yard. Travel approximately 1,120 ft east along the former SM-1A pipeline corridor to the site.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Jacobs (April 1999) 1998 Remedial Investigation Report (pages 35-1 through 35-6).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcels 90 and 132, the SM-1A pipeline, as Community



Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:

Areas that are not evaluated or require additional evaluation.

The Fort Greely SM-1A reactor pipeline was operated from 1962 through 1967. This shallow waste pipeline was used to transport low-level radioactive liquid waste from the reactor to a dilution station before being discharged into Jarvis Creek. The EBS recommended removal of the SM-1A pipeline.

The SM-1A pipeline was removed through station 35+00 during summer 1997. Four discrete areas of potential POL-impacted soils were identified during the removal; station 20+70 was one of these areas. POL odor was detected by the SM-1A pipeline excavation crew at this location. Field screening was conducted to 3.5 ft below ground surface (bgs) and a sample was collected and analyzed. Diesel Range Organics (DRO), Residual Range Organics (RRO), and Semi-Volatile Organic Compounds (SVOCs) constituents were detected. GRO and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) were not detected. All detections except one (150 mg/kg of bis(2-ethylhexyl)phthalate) were below project screening standards in use at the time of the work. Excavated soil was containerized, staged at the "laydown yard," and later disposed of under the SM-1A pipeline removal effort. The contaminant source was not identified, but was suspected to be a small release from equipment or potentially contaminated fill from the period of pipeline construction.

Three test pits (TP-976 through TP-978) were excavated to 10 ft bgs in summer 1998 to further investigate the site. Samples were analyzed for DRO, RRO, GRO, BTEX, and Polynuclear Aromatic Hydrocarbons (PAH). All analyte detections were below ADEC Method Two cleanup levels. The site was deemed suitable for transfer under BRAC.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

The site status is No Further Remedial Action Planned (NFRAP). The following actions have been or will be conducted to address future uses of the area surrounding Station 20+70 of the former pipeline.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying future contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the former UST location at the site, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities (such as building demolition or development) encounter contamination at the site, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

STATION 24+00 POL SITE FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum For Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Station 24+00 Petroleum, Oil, and Lubricants (POL) Site located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program, although it was not given a BRAC parcel identification number. The site is located within the boundaries of the former SM-1A pipeline corridor designated BRAC Parcels 90 and 132. The site is not listed in known environmental databases.

This site consists of an area along the former SM-1A pipeline identified as potentially contaminated with fuels. The site was identified while excavating to remove the SM-1A pipeline under the former BRAC program.

2.0 SITE LOCATION

The site is located within the boundaries of former BRAC Parcels 90 and 132 about 200 feet west of East Post Road, as follows:

- Fort Greely Local Grid: Northing 194017, Easting 203451.
- Physical Address: Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Travel east approximately 600 feet and turn north on the gravel road extending between the POL Yard and the fenced material storage compound. Travel north approximately 700 feet to the northwest corner of the fence that surrounds the POL Yard. Travel approximately 1400 feet east along the former SM-1A pipeline corridor to the site.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Jacobs (April 1999) 1998 Remedial Investigation Report (pages 35-1 through 35-6).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcels 90 and 132, the SM-1A pipeline, as Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as:



Areas that are not evaluated or require additional evaluation.

The Fort Greely SM-1A reactor pipeline was operated from 1962 through 1967. This shallow waste pipeline was used to transport low-level radioactive liquid waste from the reactor to a dilution station before being discharged into Jarvis Creek. The EBS recommended removal of the SM-1A pipeline.

The SM-1A pipeline was removed through station 35+00 during summer 1997. Four discrete areas of potential POL-impacted soils were identified during the removal; station 24+00 was one of these areas. POL odor was detected by the SM-1A pipeline excavation crew. Field screening was conducted. A POL source was not identified.

Three test pits (TP-982 through TP-984) were excavated in summer 1998 to 10 feet bgs. Samples were analyzed for Diesel Range Organics (DRO), Residual Range Organics (RRO), Gasoline Range Organics (GRO), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), Polynuclear Aromatic Hydrocarbons (PAH) and Organic Compounds/ Pesticides (OCP). Trace PAH and OCP analytes were detected, however all analyte detections were well below ADEC Method Two cleanup levels. The site was deemed suitable for transfer under BRAC.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

The site status is No Further Remedial Action Planned (NFRAP). The following actions have been or will be conducted to address future uses of the area surrounding Station 24+00 of the former pipeline.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying future contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the former UST location at the site, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities (such as building demolition or development) encounter contamination at the site, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

STATION 9+50 POL SITE FORT GREELY, ALASKA

1.0 INTRODUCTION

This fact sheet serves as an exhibit supporting the Memorandum for Record agreed to by the Alaska Department of Environmental Conservation (ADEC), the U.S. Environmental Protection Agency (EPA), and the U.S. Army U.S. Army Garrison, Fort Greely, Alaska.

This Fact Sheet describes the site generally known as Station 9+50 Petroleum, Oil, and Lubricants (POL) Site located at Fort Greely, Alaska. The site was investigated under the recent Base Realignment and Closure (BRAC) program, although it was not given a BRAC parcel identification number. The site is located within the boundaries of the former SM-1A pipeline corridor designated BRAC Parcels 90 and 132. The site is not listed in known environmental databases.

This site consists of an area along the former SM-1A pipeline near the northwest corner of the Fort Greely bulk fuel storage yard (POL Yard). The site was identified as potentially contaminated with fuels while excavating to remove the SM-1A pipeline under the former BRAC program.

2.0 SITE LOCATION

The site is within the boundaries of former BRAC Parcels 90 and 132, located as follows.

- Fort Greely Local Grid: Northing 193958, Easting 202060.
- <u>Physical Address</u>: Turn east from the Richardson Highway onto Big Delta Avenue. Travel east on Big Delta Avenue. Turn north on First Street. Turn east on Shaw Avenue. Travel east approximately 600 ft and turn north on the gravel road extending between the POL Yard and the fenced material storage compound. Travel north approximately 700 ft. The site is located near the northwest corner of the fence that surrounds the POL Yard.

3.0 DESCRIPTION AND FINDINGS OF SITE WORK

3.1 Listing of Documents with Site Information

The following document contains information about this site:

Jacobs (April 1999) 1998 Remedial Investigation Report (pages 35-1 through 35-6).

3.2 Description of Site Characterization and Remedial Actions

Pursuant to Fort Greely being selected for BRAC, an Environmental Baseline Survey (EBS) was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcels 90 and 132, the SM-1A pipeline, as Community Environmental Response Facilitation Act (CERFA) Category 7 parcel. Category 7 was defined as follows:



Areas that are not evaluated or require additional evaluation.

The Fort Greely SM-1A reactor pipeline was operated from 1962 through 1967. This shallow waste pipeline was used to transport low-level radioactive liquid waste from the reactor to a dilution station before being discharged into Jarvis Creek. The EBS recommended removal of the SM-1A pipeline.

The SM-1A pipeline was removed through station 35+00 during summer 1997. Four discrete areas of potential POL-impacted soils were identified during the removal; station 9+50 was one of these areas. Odor was documented in a 2-ft-deep excavation along the SM-1A pipeline route. The source was not determined.

To investigate the identified potential contamination, one soil boring (AP-975) was drilled in 1998 to 17 ft below ground surface (bgs). Soil samples were analyzed for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Residual Range Organics (RRO), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), and Polynuclear Aromatic Hydrocarbons (PAH). DRO was detected up to 28 mg/kg, and RRO was detected up to 90 mg/kg. Several PAH compounds were detected at trace levels. BTEX and GRO were not detected. All detected analyte concentrations were below screening levels in use during 1998, and were below the current ADEC Method Two cleanup levels. The site was deemed suitable for transfer under BRAC.

3.3 Summary of Remaining Contamination

No contaminants of concern are known to exist at this site at concentrations of concern.

4.0 SITE STATUS AND REMEDY

The site status is No Further Remedial Action Planned (NFRAP). The following actions have been or will be conducted to address future uses of the area surrounding Station 9+50 of the former pipeline.

- 1. Administrative Controls (ACs) have been established for this site in order to minimize risk to human health and the environment. The site is included in the post's Geographic Information System (GIS), a tool used in the Dig Permit process for notifying future contractors, workers, and base personnel of the potential for contamination to exist at this site. The Dig Permit process is used to prevent installation of water production well(s) through the former UST location at the site, and prevent removal of contaminated material from the site to off-base locations or to environmentally sensitive areas. If future land disturbance activities (such as building demolition or development) encounter contamination at the site, the contaminated material encountered will be properly remediated or disposed of in accordance with applicable regulations.
- 2. The site will be included in 5-yr reviews to periodically verify compliance with the ACs.

ATTACHMENT

4

TABLE OF REPORTS AND REFERENCES

Title	Date	Prepared By:
Full-Sized Drawing: Site Plan - New Post.	Jan-53	U.S. Army
Full-Sized Drawing: Copy of Aerial Photograph.	1955	USACE-Alaska District
Full-Sized Drawing: Sanitary Landfill Area (Abandoned).	Nov-67	U.S. Army
Analysis of Existing Facilities.	Aug-68	USACE-Alaska District
Pollution Incident Report, Alyeska-Caused Leak.	Jun-76	U.S. Army
Spill Report, Building 601.	1980	U.S. Army
Spill Report, Building 602.	Apr-80	U.S. Army
Spill Report, Building 602.	13-Sep-84	U.S. Army
RCRA Hazardous Waste Management Compliance Evaluation Inspection Report	Sep-87	ADEC
Environmental Operations Review, Findings and Recommendations.	Jul-88	U.S. Army Environmental Hygiene Agency
RCRA Hazardous Waste Management Compliance Evaluation Inspection Report.	Aug-88	ADEC
Memorandums Regarding PCB Spills at Fort Greely, 1983-1990.	Jun-89	U.S. Army
PCB Annual Report, 1979-1990.	1990	U.S. Army
Technical Enforcement Support at Hazardous Waste Sites TES 11 - Zone 4, RCRA Facility Assessment PR/VSI Report.	1990	Science Applications International Corporation (SAIC) Contract 68-w9-0008, WA #R10003 SAIC Project # 6-788-03-807-00
UST Site Assessment and Recommendations.	17-24 September 1990	Brown and Root/Oil Spill Technology
Memorandum to Chief of Environmental Resources Branch, Ft. Richardson.	18-Sep-90	U.S. Army Directorate of Public Works, Fort Greely
Waste Site Locations	Dec-90	U.S. Army Toxic and Hazardous Materials Agency
Spill Report, Building 602.	17-Jul-1991	U.S. Army
Spill Report, Building 864B.	Aug-91	U.S. Army
Oil and Hazardous Materials Incident Report.	1-Jan-1992	U.S. Army
Preliminary Assessment Appendixes A-Z	28-Sep-92	CH2MHill
Preliminary Assessment	30-Sep-1992	CH2MHill document number 10010A32.ANC under Contract No. DACA85-92-D-0007, Delivery Order 0001.
Oil Discharge Prevention and Contingency Plan, Fort Greely, Alaska	1-Jun-1993	US Army Corps of Engineers, Alaska District
Closure Plan for the Ft. Greely Landfill Drum Staging Area	Sep-93	America North/EMCON, Inc.
Closure Plan for Building S-216	1-Oct-1993	America North/EMCON, Inc.

Title	Date	Prepared By:	
Corrective Action Plan Release Investigation at Bldgs 110, 162, T-210, 602, 606 and 160 Volume I of II	1-Apr-94	Harding Lawson Associates	
Corrective Action Plan Release Investigation at Bldgs 110, 162, T-210, 602, 606 and 160 Volume II of II (Appendices A through G)		Harding Lawson Associates	
Corrective Action Plan Release Investigation	23-May-94	Harding Lawson Associates	
Ft. Greely US Army Building 510 UST Removal Site Assistance Recommendations and Closure	1-Sep-1994	Oil Spill Technologies, Inc.	
UST Closure and UST Site Assessment and Recommendations-Bldg 640 Solid Waste Incinerator	•	Oil Spill Technology, Inc.	
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Hazardous Chemical Inventory, Level One.	1-Oct-1994	U.S. Army	
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Final Site Investigation Letter Report, Building 110 Fort Greely, Alaska	Mar-95	AGRA Earth and Environmental, Inc.	
Remedial Action Report for Phase 1 UST Soil Stockpile Biore Mediation Vol.2	6-Mar-1995	Nugget Construction, Inc.	
Remedial Action Report for Phase 1 UST Soil Stockpile Bioremediation Vol. 1	6-Mar-1995	Nugget Construction, Inc.	
Work Plan for Phase 2 Landfarming Operations UST Soil Stockpile Biore Mediation		Nugget Construction, Inc.	
Draft Fort Greely Hazardous Waste and Hazardous Materials Standard Operating Proce	1-Apr-1995	EMCON Alaska, Inc.	
Letters to the U.S. Environmental Protection Agency for Closure of 216, 606, and Landfill Drum Storage.	1-Jul-95	U.S. Army Directorate of Public Works, Fort Greely	
Ft. Greely US Army Building 501 UST Removal Site Assistance Recommendations and Closure	1-Aug-1995	Oil Spill Technologies, Inc.	
Investigation Report, Confirmation Drilling at Buildings 162 and 606, Appendix G	1-Jan-1996	AGRA Earth and Environmental, Inc.	
Investigation Report, Confirmation Drilling, Buildings 162 and 606 Fort Greely, Alaska	Jan-96	AGRA Earth and Environmental, Inc. Contract DACA85-94-D-0011, Delivery Order 0005	
Spill Report, Building 601.	9-Apr-1996	U.S. Army	
ADEC, Div of Contaminated Sites and Spill Program Letter regarding investigation report, BLDG 602, T-210, 110, and 162 at FGA, AK Contract DACA85-94-D-0011 Delivery Order-005	16-Sep-96	Woodward-Clyde	

Title	Date	Prepared By:
U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Fort Greely, Alaska	1/24/1997	Woodward Clyde
BRAC Lead-Based Paint Survey, Fort Greely, Alaska	21-Jul-97	Woodward-Clyde Federal Services, Contract No. DACA-85-94-D-005, Delivery Order No. 19
Lead-based Paint Survey Building 820 and 822	Aug-97	Woodward-Clyde
Heating Oil Tank No. 410 Closure Report, Building 133, Fort Greely, Alaska	22-Sep-97	Rockwell Engineering Services
Remedial Action Report Phase 2 Landfarming Operation UST Soil Stockpile Bioremediation Vol. 1	23-Apr-98	Nugget Construction, Inc.
Remedial Action Report Phase 2 Landfarming Operation UST Soil Stockpile Bioremediation Vol. 2	1-May-1998	Nugget Construction, Inc.
1997 Site Investigation / Limited Remedial Investigation Report, Final	Aug-98	Jacobs Engineering Group Inc.
1998 Remedial Investigation Report, Fort Greely, Alaska	3-Mar-99	Jacobs Engineering Group Inc.
Summary Report 1999 Remedial Investigation/Removal Action FGA Appendix A - Select Photographic log	1-Aug-00	Jacobs Engineering Group Inc.
Summary Report, 1999 Remedial Investigation/Removal Action, Final	Aug-00	Jacobs Engineering Group Inc./Radian document number AKT-J07-05M310-J22-0012 under Total Environmental Restoration Contract No. DACA 85-95-D-0018, Task Order 10.
Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Final	1-Apr-2001	Jacobs Engineering Group Inc., document number AKT- J07-05M310-J02-0017, under Total Environmental Restoration Contract No. DACA 85-95-D-0018, Task Order No. 10.
2000 Thermal Treatment Completion Report		Jacobs Engineering Group, Inc.
Chemical Data Report for FGA Skeet Range Soil Sampling		ADEC, Division of Spill Prevention and Response, Industry Preparedness and Pipeline Program, Terminals and tank Farms
Limited Risk Evaluation, Fort Greely, Alaska, Final	20-Oct-01	Hart Crowser Inc. Under the Direction of Jacobs Engineering Group Inc. document number AKT-J07- 05M310-J21-0008, done under a Total Environmental Restoration Contract No. DACA 85-95-D-0018, Task Order No. 10.
103rd CST WMD Closing Report		Alaska Army National Guard and Command Fire Chief USARAK

Title	Date	Prepared By:
Summary Report: Construction Oversight and Various Environmental Response Activities at the Ground-Based Midcourse Defense Site. Fort Greely, Alaska.	1-Apr-02	Weston Solutions, Inc.
Technical Memorandum Acidic Soil Neutralization Report at the Ground Based Midcourse Defense Site	1-Aug-2002	Weston Solutions, Inc.
Email verification of RCRA Closure occurred in September 1995 for BLDG 216	1 16- lun-03	USACE - Alaska District Materials Section, Engineering Services Branch
Class V Underground Injection Control Inventory Report, Fort Greely, Alaska	4/1/2004	U.S. Army Corps of Engineers - Alaska District
Full-Sized Drawing: Lumber and Gas Storage.	Undated	U.S. Army
Hazardous Materials Inventory, Buildings 603 and 604.	Undated	U.S. Army
Spill Reports 1993-1995	Undated	
Tank File for Tank 411 at Building 140.	N/A	U.S. Army
Tank File for Tank 428 Building 361.		U.S. Army
Tank File for Tank 429 at Building 400.		U.S. Army
Tank File for Tank 433 Building 602.	N/A	U.S. Army
Tank File for Tank 445 at Building 640.		U.S. Army
Tank File for Tank 482 at Building 605.		U.S. Army
Tank File, FGA Tank 410 Building 133.		U.S. Army
Tank File, FGA Tank 421 Building 319.		U.S. Army
Tank File, FGA Tank 431 Building 510.		U.S. Army
Tank File, FGA Tank 444 Building 627.	N/A	U.S. Army
Army Environmental Database - Restoration (AEDB-R)	N/A	U.S.Army

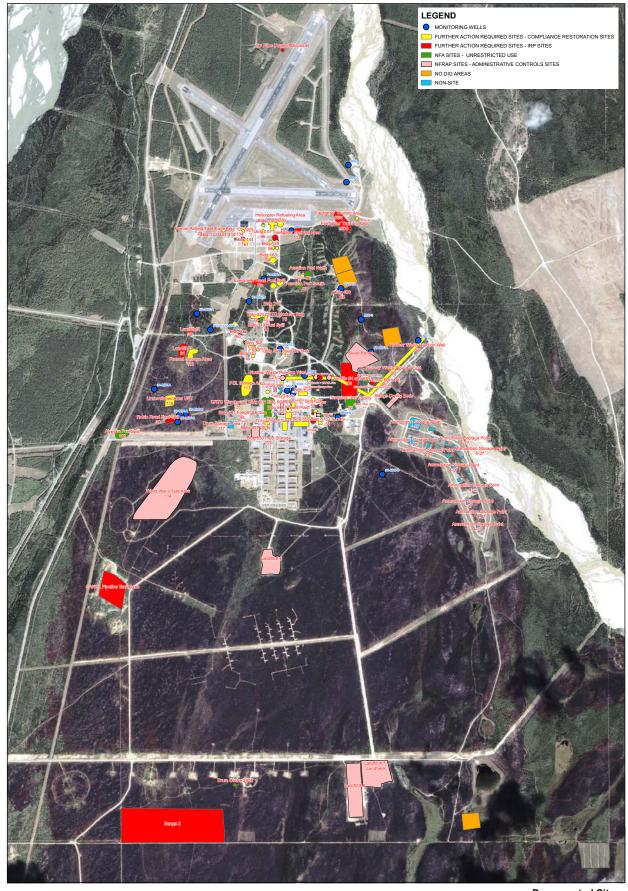
ATTACHMENT

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MAPS:

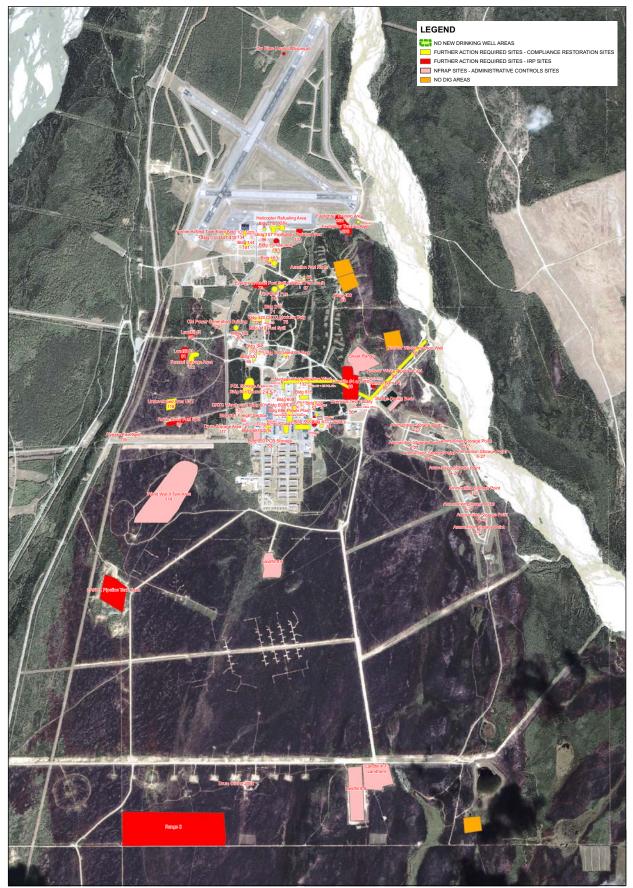
DOCUMENTED SITES AND MONITORING WELLS

ADMINISTRATIVE CONTROL AREAS



Documented Sites and Monitoring Wells





Administrative Control Areas



ATTACHMENT

6

TABLE OF BRAC PARCEL NUMBERS WITH SITE STATUS AND STATE PLANE GRID COORDINATES

BRAC Parcel Locations

BRAC Parcel ID	Site Name	Status	Northing	Easting
1	South Undeveloped Area	Non-Site	N/A	N/A
2	Family Housing	Non-Site	N/A	N/A
3	Family Housing	Non-Site	N/A	N/A
4 - 27	Ammunition Storage Point	Non-Site	N/A	N/A
28	Northwest Undeveloped Area	Non-Site	N/A	N/A
29	Former Airfield Tank Farm	FA-Compliance	3650063	1684066
30	Robin Road Fuel Spill	FA-IRP	3644522	1682738
31	Landfill #1	FA-IRP	3646527	1682862
32	Landfill #2	FA-IRP	3647085	1683083
33	Admin/Industrial Area	Non-Site	N/A	N/A
34	Bldg 508	Non-Site	3648374	1685588
35	CRTC Warehouse, Bldg 601	Non-Site	3645301	1685367
36	Bldg 622	Non-Site	3645314	1685774
37	Bldg 603	Non-Site	3644710	1685600
38	Bldg 604	Non-Site	3644904	1686131
39	Bldg 608	FA-Compliance	3644911	1686126
40	Storage Area near Bldg 608	Non-Site	3645017	1686126
41	Bldg 614 Gas Station	FA-Compliance	3645050	1686335
42	Bldg 610	Non-Site	3644668	1686330
43	Bldg 635	Non-Site	3644809	1687907
44	Alaska Cable Office	Non-Site	3644809	1687907
46	Bldg 601 Freight Section	NFA-Unrestricted	3644787	1685379
48	Bldg 626 Waste Accumulation Area	FA-IRP	3644738	1686778
49	Transformer Storage Area	NFA-Unrestricted	3645211	1685709
50	Bldg 619 Fuel Spill	Non-Site	3645462	1685735
51	Bldg 602 Fuel Spill	NFA-Unrestricted	3644545	1685600
52	Bldg 627 Drum Storage Site	NFA-Unrestricted	3644587	1686961
53	Bldg 650 PCB Storage	NFA-Unrestricted	3643978	1685402
54	Bldg 675 Laundry	FA-IRP	3644453	1686708
55	Bldg 670	FA-Compliance	3644390	1686916
56	Chemical Test Facility	NFA-Unrestricted	3644965	1687807
57	Bldg 628	FA-Compliance	3645068	1686704
58	Nuclear Waste Injection Well	FA-Compliance	3646625	1689688
59	Mid Post	Non-Site	N/A	N/A
60	Bldg 322	Non-Site	3647057	1684508
61	Bldg 361	Non-Site	3646755	1684722
62	Unnumbered pesticide storage Bldg	FA-Compliance	3646628	1684859
63	Bldg 348	NFA-Unrestricted	3646626	1684964
64	Bldg 349	NFA-Unrestricted	3646530	1684978
65	Bldg 351	Non-Site	3646364	1684787
66	Bldg 350	FA-Compliance	3646363	1684936

BRAC Parcel ID	Site Name	Status	Northing	Easting
67	Bldg 327	Non-Site	3646787	1684904
68	Bldg 364	Non-Site	3647373	1685159
69	Bldg 339	Non-Site	3646400	1685753
70	Bldg 512	Non-Site	3645694	1685650
71	Bldg 216	NFA-Unrestricted	3647822	1686498
72	Bldg 320	FA-Compliance	3647530	1685019
73	Evergreen Road Fuel Spill	FA-IRP	3648536	1685125
74	Bldg 319 Fuel Spill	NFA-Unrestricted	3647371	1685159
75	CRTC Modular Bldg	FA-Compliance	3647505	1685317
76	Bldg 352	FA-Compliance	3646555	1685084
77	Bldg 340 Used Oil Tank	FA-Compliance	3647484	1685854
78	Bldg 318 Pesticide Storage	NFA-Unrestricted	3647464	1685218
79	Fire Burn Pan	FA-Compliance	3648427	1685536
80	Fire Burn Pad	FA-Compliance	3648515	1685731
81	Northeast Undeveloped Area	Non-Site	N/A	N/A
82	Air Curtain Incinerator	NFA-Unrestricted	3645612	1688302
83	Bldg 400	Non-Site	3648174	1687560
84	Bldg 210	FA-Compliance	3648728	1686394
85N	Firefighter Training Area (North)	FA-IRP	3650459	1687458
85S	Firefighter Training Area (South)	FA-IRP	3650190	1687641
86	Aeration Pad North	NFA-Unrestricted	3648766	1686554
87	Aeration Pad South	NFA-Unrestricted	3648430	1686299
88	Landfills #4 and #5	FA-IRP	3645643	1687777
89	Refuse Burn Pit	FA-IRP	3645584	1688440
90	Nuclear Waste Pipeline East	FA-Compliance	3645640	1688760
91	Old Post Area	Non-Site	N/A	N/A
92	Bldg 100 Drum Storage	FA-Compliance	3650107	1684670
93	Bldg 140	Non-Site	3649817	1684638
94	Bldg 163	FA-Compliance	3649271	1685387
95	Bldg 161	Non-Site	3649745	1685632
96	Bldg 107	FA-Compliance	3650024	1685233
97	Bldg 106	FA-Compliance	3650212	1685240
98	Bldg 159	FA-Compliance	3649704	1685454
99	Bldg 162	FA-Compliance	3649539	1685645
100	Bldg 160	FA-Compliance	3649554	1685520
101	Bldg 144	FA-Compliance	3649725	1684704
102	Evergreen Road POL Yard	FA-Compliance	3649189	1685529
103	Bldg 157 Laundry	FA-IRP	3649849	1685589
111	Bldg 663	FA-Compliance	3644325	1685328
112	Fenced Salvage Area	FA-Compliance	3646442	1683113
113	POL Storage Area	FA-Compliance	3645509	1684777
114	World War II Tent Site	NFRAP	3642405	1682465
115	Bldg 601 Dump Site	NFA-Unrestricted	3645061	1685376
116	Old Power Generation Bldg	FA-Compliance	3647288	1684396

BRAC Parcel ID	Site Name	Status	Northing	Easting
117	Drum Storage Area	Non-Site	3644335	1684284
118	Undeveloped Area UST	FA-Compliance	3645053	1682487
119	Alyeska Fuel Spill	NFA-Unrestricted	3644074	1681079
120	Bldg 606 Wash Rack	Non-Site	3645031	1685949
121	Helicopter Refueling Area	FA-Compliance	3650247	1685743
130	Bldg 626 UST	FA-Compliance	3644667	1686698
131	Field between POL Facility and Bldg 615	NFA-Unrestricted	3645302	1686111
132	Nuclear Waste Pipeline West	FA-Compliance	3645716	1686629
133	Firefighter Training Area	FA-IRP	3650111	1686273
134	Bldg 101 Tank	FA-Compliance	3650042	1684643
135	Bldg 612 Drywell	FA-Compliance	3644580	1686572
-	AST Various	Non-Site	N/A	N/A
-	Bldg 601 Drums 2,4,5-T	FA-Compliance	3645301	1685367
-	Bldg 639	Non-Site	3645390	1688859
-	Bldg 658	FA-Compliance	3644365	1686370
-	Building 110 USTs	FA-Compliance	3650228	1685505
-	Building 133 UST 410	NFA-Unrestricted	3650098	1686265
-	Building 319 UST 421	Non-Site	3647411	1685109
-	Building 328 UST 424	Non-Site	3646816	1684897
-	Building 501 USTs	NFRAP	3644073	1685027
-	Building 510 UST 431	NFA-Unrestricted	3644436	1684693
-	Building 605 CRTC	NFRAP	3644817	1685800
-	Building 606 Power Plant	FA-Compliance	3644707	1685978
-	Building 615	FA-Compliance	3645250	1686405
-	Building 617 Fuel Spill	FA-Compliance	3645209	1685844
-	Building 627 UST No. 444	Non-Site	3644621	1686868
-	Building 660 UST 447	FA-Compliance	3644307	1685874
-	CANOL Pipeline Tank Farm (South Tank Farm)	FA-IRP	3639499	1680801
-	Classified Documents Burn Cage	NFA-Unrestricted	3650640	1687636
-	Collapsed Barracks	Non-Site	N/A	N/A
-	Deactivated Nuclear Reactor	FA-Compliance	3644804	1685962
-	Drum Cache 2002	NFA-Unrestricted	3633716	1684406
-	General FTG Investigations	Non-Site	N/A	N/A
-	Landfarm	NFRAP	N/A	N/A
-	Landfill 3	FA-Compliance	3650412	1687996
-	Landfill 6	NFRAP	3640286	1685457
-	Landfill 7	NFRAP	3634067	1688564
-	Landfill 8	Non-Site	3633583	1687933
-	Lead Based Paint RA	Non-Site	N/A	N/A
-	Ordnance and Hazmat Storage	Non-Site	3650640	1687636
-	Skeet Range	Non-Site	3645967	1687759
-	Sludge Drying Beds	Non-Site	3645052	1689075
-	Station 20 + 70 POL Site	NFRAP	3645735	1686788

BRAC Parcel ID	Site Name	Status	Northing	Easting
-	Station 21 + 25 POL Site	FA-IRP	3645724	1686914
-	Station 24 + 00 POL Site	NFRAP	3645723	1687180
-	Station 9 + 50 POL Site	NFRAP	3645712	1685812
-	Tar Piles (Asphalt Disposal)	FA-IRP	3655376	1685807