JFHQ TX ARNG

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	. 1
Phase Translation Table	. 3
Site Alias List	. 4
Compliance Cleanup Sites	. 5
CC_TXHQ_002-R-01_NDNODS KERENS NATIONAL	.6
CC-TXHQ-010-R-01 NDNODS GROOM WEEKEND TR	.7
CC_TXHQ-011-R-01_NDNODS_LA REFORMA TRAIN	. 8
Site Closeout Summary	. 9
Community Involvement	10
Five-Year / Periodic Review Summary	11
Review Summary Table	11
ROD/DDs associated with the last Five-Year/Periodic Review	11
Results, Actions & Plans	11
Land Use Controls (LUC) Summary	12

ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
сс	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
DERP	Defense Environmental Restoration Program
ENV	Environmental
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
МС	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
mg/kg	Milligram/Kilogram
MR	Munitions Response
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
NDNODS	Non-Department of Defense Owned, Non-Operational Defense Sites
PA	Preliminary Assessment
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(0)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation

Acronym	Definition
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SAR	Small Arms Range
SI	Site Inspection
TAPP	Technical Assistance for Public Participation
TRC	Technical Review Committee
TXARNG	Texas Army National Guard
UST	Underground Storage Tank
WETS	Weekend Training Site
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

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

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
6918A.1008	CC_TXHQ_002-R-01_NDNODS KERENS NATIONAL	RRTX000002
6918A.1009	CC-TXHQ-010-R-01 NDNODS GROOM WEEKEND TR	
6918A.1010	CC_TXHQ-011-R-01_NDNODS_LA REFORMA TRAIN	

JFHQ TX ARNG

COMPLIANCE CLEANUP SITES

CC_TXHQ_002-R-01_NDNODS KERENS NATIONAL

HQAES ID: 6918A.1008	Phases	Start	End
Alias: RRTX000002	PA	4/15/2007	9/15/2009
Regulatory Driver: CERCLA			
RRSE: Not assigned	SI	7/15/2010	9/15/2012
MRSPP: Not assigned	RI/FS	1/1/2030	12/31/2034
RIP Date: 2/1/2037	RD	1/1/2035	1/31/2035
RC Date: 2/1/2037	IRA		
RC Reason: Not assigned	RA(C)	2/1/2035	2/1/2037
Program: Compliance Cleanup	RA(O)		
Subprogram: CC	. ,		
	LTM		

Site Narrative

The 6.1-acre small arms range is transferred and located in Kerens, Navarro County, Texas. This munitions response site (MRS) was utilized by units of the Texas Army National Guard (TXARNG) from approximately 1956 through 1972. The former small arms range was utilized by units of the TXARNG from approximately 1956 through 1972. Based on an article from Apr. 22, 1969, it identifies the rifle range as being located five miles northeast of Kerens on privately owned property. A Leasehold Condemnation from December 1967 stated that the term for use on the former small arms range was to be extended through June 30, 1979; however, a subsequent Leasehold Condemnation from September 1972 stated that the Kerens National Guard Target Range would not be required by the TXARNG and occupancy would be terminated on Dec. 30, 1972.

Site Inspection (SI) field work was conducted in 2011 and consisted of an instrument-aided visual survey and collection of several soil samples. Lead concentrations were detected at 690 milligrams per kilogram (mg/kg) in soil, which is above the state screening level of 400 mg/kg. Munitions debris (MD) related to 2.36-inch practice rockets was found. Based on the visual survey and analytical results, the SI recommended the Kerens National Guard Target Range for further investigation [Remedial Investigation (RI)] for munitions and explosives of concern (MEC) and munitions constituents (MC) due to the presence of MD related to 2.36-inch practice rockets, and because MC concentrations (lead) within the impact area exceeded screening criteria.

Defense Environmental Restoration Program (DERP) funding was used to complete work through the SI at this site. Non-Department of Defense Owned, Non-Operational Defense Sites (NDNODS) sites moving forward with the RI/Feasibility Study (FS) phase are reprogrammed into Compliance-related Cleanup.

Cleanup Strategy

A RI/FS will be completed at this site. Once the RI/FS is completed it is assumed a soil excavation will be required.

CC-TXHQ-010-R-01 NDNODS GROOM WEEKEND TR

HQAES ID: 6918A.1009	Phases	Start	End
Alias: None	PA	4/15/2007	9/15/2009
Regulatory Driver: CERCLA			
RRSE: Not assigned	SI	7/15/2007	9/15/2012
MRSPP: Not assigned	RI/FS	1/1/2027	12/31/2031
RIP Date: 12/31/2031	RD		
RC Date: 12/31/2031	IRA		
RC Reason: Not assigned	RA(C)		
Program: Compliance Cleanup	RA(O)		
Subprogram: CC			
	LTM		

Site Narrative

Groom Weekend Training Site (WETS) is located north of Historic Route 66, south of Ranch Road 2477, and east of Highway 70 in Groom, Gray County, Texas. Groom WETS is located directly adjacent to the west of McClellan Creek National Grassland. The site consists of a single 5,235-acre MRS located in portions of Sections 1-20 and 24, as identified by the Gray County Appraisal District. Groom WETS has also been historically referred to as Panhandle Training Site. The former training range area was utilized by units of the TXARNG from approximately the 1970s through 1999 when the lease was allowed to lapse, resulting in the closure of the WETS. Groom WETS is currently located on privately owned property with multiple owners.

SI field work was conducted in 2011 and consisted of an instrument-aided visual survey and collection of soil samples. Military MD in addition to small arms debris was expected and detected at the MRS during the SI field survey, including MEC items. All soil results were less than Texas soil screening criteria. Further action (RI) was recommended to evaluate the degree of hazard and exposure related to potential MEC.

DERP funding was used to complete work through the SI at this site. NDNODS sites moving forward with the RI/FS phase are reprogrammed into Compliance-related Cleanup.

Cleanup Strategy

A RI/FS will be completed at this site. Once the RI/FS is completed, future actions will be evaluated. At this time there isn't sufficient documentation to plan for future actions.

CC_TXHQ-011-R-01_NDNODS_LA REFORMA TRAIN

HQAES ID: 6918A.1010	Phases	Start	End
Alias: None	PA	4/15/2007	9/15/2009
Regulatory Driver: CERCLA			
RRSE: Not assigned	SI	7/15/2007	9/15/2012
MRSPP: Not assigned	RI/FS	1/1/2030	12/31/2034
RIP Date: 2/1/2037	RD	1/1/2035	1/31/2035
RC Date: 2/1/2037	IRA		
RC Reason: Not assigned	RA(C)	2/1/2035	2/1/2037
Program: Compliance Cleanup			
Subprogram: CC	RA(O)		
	LTM		

Site Narrative

The 1-acre La Reforma Training Site small arms range (SAR), part of a former larger 4,305-acre MRS identified during the Preliminary Assessment (PA), was leased by the United States of America from 1992 to 2005. The TXARNG trained at the former MRS in its capacity as a reserve component for the United States Army. The MRS was used as a maneuver/training area and small arms training area. This MRS provided limited training opportunities for infantry, aviation, combat support and combat service support units. Law enforcement agencies and civilian organizations also used the training site.

SI field work was conducted in 2012 and included completion of an instrument-aided visual survey and collection of soil samples. Lead was detected above the Texas screening level of 400 mg/kg. Historical information indicated that the site was an approximately 5-acre SAR, but data collection during SI activities resulted in the site being reduced to one (1) acre. The La Reforma Training Site SAR was recommended for further investigation (RI) for MC because MC concentrations (lead) within the impact berm exceeded screening criteria.

DERP funding was used to complete work through the SI at this site. NDNODS sites moving forward with the RI/FS phase are reprogrammed into Compliance-related Cleanup.

Cleanup Strategy

A RI/FS will be completed at this site. Once the RI/FS is completed it is assumed a soil excavation will be required.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
6918A.1001	TXHQ-008-R-01_NDNODS Lake Crook Artiller	9/30/2012	ENV Restoration, Army
6918A.1003	TXHQ-011-R-01_La Reforma Training Site	9/30/2012	ENV Restoration, Army
6918A.1004	TXHQ-010-R-01_NDNODS Groom Weekend Train	10/15/2012	ENV Restoration, Army
6918A.1005	TXHQ-008-R-02_NDNODS LAKE CROOK RANGE	10/15/2012	ENV Restoration, Army
6918A.1007	TXHQ-011-R-02_LA REFORMA TRAINING SITE	10/15/2012	ENV Restoration, Army

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Once sites make it to the RI/FS phase a RAB solicitation will be posted in local papers and a Community Involvement Plan will be prepared.
Administrative Record is located at:	Texas Army National Guard 2200 West 35th Street Austin, TX 78703 512-782-5753
Information Repository is located at:	Texas Army National Guard 2200 West 35th Street Austin, TX 78703 512-782-5753
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

BERGSTROM – [Austin Bergstrom International Airport (ABIA)]

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	1
Phase Translation Table	3
Site Alias List	4
INSTALLATION RESTORATION PROGRAM Sites	5
TX2020-01-P_BERGSTROM PFAS CONT	6
Site Closeout Summary	
Community Involvement	9
Five-Year / Periodic Review Summary	10
Review Summary Table	10
ROD/DDs associated with the last Five-Year/Periodic Review	10
Results, Actions & Plans	10
Land Use Controls (LUC) Summary	11

ACRONYMS

Acronym	Definition
AASF	Army Aviation Support Facility
ABIA	Austin Bergstrom International Airport
AEDB-R	Army Environmental Database - Restoration
AFFF	Aqueous Film-Forming Foam
AFRC	Armed Forces Reserve Center
AOI	Area of Interest
СС	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
DERP	Defense Environmental Restoration Program
ENV	Environmental
FS	Feasibility Study
НА	Health Advisory
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
JVMF	Joint Vehicle Maintenance Facility
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
ng/L	Nanograms/Liter
PA	Preliminary Assessment
PFAS	Per- and Polyfluoroalkyl Substances
PFHxS	Perfluorohexanesulphonic Acid
PFNA	Perfluorononanoic Acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid

Acronym	Definition
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(0)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SL	Screening Level
ТАРР	Technical Assistance for Public Participation
TRC	Technical Review Committee
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

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

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
6680A.1002	TX2020-01-P_BERGSTROM PFAS CONT	

BERGSTROM - (ABIA)

INSTALLATION RESTORATION PROGRAM SITES

TX2020-01-P_BERGSTROM PFAS CONT

HQAES ID: 6680A.1002	Phases	Start	End
Alias: None	Phases	Start	End
Regulatory Driver: CERCLA		8/11/2017	7/15/2020
RRSE: Not assigned	SI	12/6/2019	5/31/2023
MRSPP: Not assigned		9/15/2022	9/15/2029
RIP Date: 9/15/2029	RD		
RC Date: 6/15/2030	IRA		
RC Reason: Not assigned	RA(C)		
Program: ENV Restoration, Army			
Subprogram: IR	RA(O)		
	LTM		

Site Narrative

The Austin Bergstrom Army Aviation Support Facility (AASF) occupies approximately 57 acres of land at the Austin Bergstrom International Airport (ABIA) in Austin, Texas. The facility includes three hangars, a Joint Vehicle Maintenance Facility (JVMF), and an Armed Forces Reserve Center (AFRC). The Austin Bergstrom AASF is tasked with providing hangar, administrative, and supply and maintenance shop spaces to service aircraft, serve peacetime missions, and perform the necessary tasks that improve the units' readiness.

A Preliminary Assessment (PA) was completed at Austin Bergstrom AASF to assess potential per- and polyfluoroalkyl substances (PFAS) release areas and exposure pathways to receptors. Four areas of interest (AOIs) were identified at Austin Bergstrom AASF during the PA. Based on interviews with current AASF personnel, reported historical aqueous film-forming foam (AFFF) releases are associated with the Maintenance Hangar AFFF, AFFF fire extinguisher testing/training at the wash rack, and AFFF fire suppression systems at the Storage Hangar and Fixed Wing Support Hangar. Additionally, AFFF was stored at the Hazardous Materials Storage Building. These releases and storage of AFFF indicate the potential for PFAS contamination in media at or near the facility.

A Site Inspection (SI) was performed in June 2021 that included the collection of soil and groundwater samples. At AOI 1, perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexanesulphonic acid (PFHxS), and perfluorononanoic acid (PFNA) in groundwater exceeded the screening levels (SLs) with maximum concentrations of 44.8 J nanograms/liter (ng/L), 578 ng/L, 240 ng/L, and 9.30 ng/L, respectively. At AOI 2 concentrations of PFOS, PFOA, and PFNA in groundwater exceeded SLs with maximums of 591 ng/L, 11.9 ng/L, and 6.16 ng/L, respectively. Concentrations of PFOS, and PFOA exceeded groundwater SLs at AOI 3 with maximum concentrations of 130 ng/L and 7.53 ng/L, respectively. The SLs for PFOS, PFOA, and PFHxS in groundwater at AOI 4 were exceeded with maximum concentrations of 273 ng/L, 24.8 ng/L, and 176 ng/L, respectively. All four AOIs were recommended to proceed to Remedial Investigation (RI), and RI was funded in late FY22.

The subject site was tracked as 6680A.1001 under the Compliance-related Cleanup (CC) program. In June 2022, the site became Defense Environmental Restoration Program (DERP) eligible.

BERGSTROM - (ABIA) Installation Action Plan

Cleanup Strategy

A RI/Feasibility Study (FS) is needed at this site, and RI portion has been funded. FS and Decision Document (DD) costs will require future funding. Further actions cannot be determined until after the RI/FS is complete.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
6680A.1001	CCTX2020-01-P_BERGSTROM PFAS CONT	6/17/2022	Compliance Cleanup

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	TBD
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Community Involvement Plan, Administrative Record and Information Repository will all be developed as the project progresses. Coordination with Austin-Bergstrom International Airport (ABIA) ongoing.
Administrative Record is located at:	TBD
Information Repository is located at:	TBD
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

CAMP BARKELEY

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	. 1
Phase Translation Table	. 3
Site Alias List	. 4
Military Munitions Response Program Sites	. 5
BARK-001-R-001_Small Arms Range	.6
Site Closeout Summary	. 8
Community Involvement	. 9
Five-Year / Periodic Review Summary	10
Review Summary Table1	10
ROD/DDs associated with the last Five-Year/Periodic Review	10
Results, Actions & Plans1	10
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ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
сс	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
ENV	Environmental
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LAW	Light Anti-tank Weapon
LTM	Long-Term Management
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
mg/kg	Milligrams/Kilogram
mm	Millimeter
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
PA	Preliminary Assessment
PCL	Protective Concentration Limit
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(0)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision

Acronym	Definition	
RRSE	Relative Risk Site Evaluation	
SAR	Small Arms Range	
SI	Site Inspection	
TAPP	Technical Assistance for Public Participation	
TRC	Technical Review Committee	
TXARNG	Texas Army National Guard	
UST	Underground Storage Tank	
WBS	Work Breakdown Structure	

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
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.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
5058A.1001	BARK-001-R-001_Small Arms Range	

CAMP BARKELEY

MILITARY MUNITIONS RESPONSE PROGRAM SITES

BARK-001-R-001_Small Arms Range

HQAES ID: 5058A.1001	Phases	Start	End
Alias: None			
Regulatory Driver: CERCLA	PA	1/31/2010	3/31/2010
RRSE: Not assigned	SI	1/31/2010	3/31/2010
MRSPP: Not assigned	RI/FS	8/15/2012	6/15/2024
RIP Date: 6/15/2025	RD	10/15/2024	11/15/2024
RC Date: 6/15/2025	IRA		
RC Reason: Not assigned	RA(C)	10/15/2024	10/15/2026
Program: ENV Restoration, Army			
Subprogram: MR	RA(O)		
	LTM	10/15/2026	10/15/2056

Site Narrative

Camp Barkeley was a federally owned small arms range (SAR) consisting of three sets of target lanes: .45 caliber/9 millimeter (mm) pistol, 5.56mm rifle, and 5.56mm known distance lanes. One demolition pit also existed on site. The rifle range consisted of 48 targets for 100- and 200-yard firing distances, 10 targets for short range weapons for use at distances not to exceed 50 yards, and 16 targets for 1,000-yard firing distances. Texas Army National Guard (TXARNG) Infantry and Artillery units as well as soldiers from the Army, Marine, and Navy Reserves also utilized the range. The range encompassed approximately 80 acres and was used for weapons training (M1 Rifle Range) during the World War II years and then again in the 1970s and 1980s (M16, Pistol, and Anti-tank range). Operation of the range ceased in approximately 1994.

A munitions and explosives of concern (MEC) surface clearance at the Light Anti-tank Weapon (LAW) Subcaliber portion of the range was conducted between October 6th and 10th, 2014. A total of five (5) MEC items were discovered during the analog instrument-assisted surface clearance of the LAW Subcaliber area with 100% coverage over the entire LAW Subcaliber area.

Remedial Investigation (RI) sampling was conducted in 2014 to characterize the nature and extent of affected surface soil. The results indicated that lead, copper and antimony were detected in soil above the human health protective concentration limit (PCL) at the target/impact berm. Lead was detected as high as 10,400 milligrams/kilogram (mg/kg), copper was detected as high as 287 mg/kg and antimony was detected as high as 64 mg/kg. The human health PCL for lead is 500 mg/kg, the human health PCL for copper is 92 mg/kg and the human health PCL for antimony is 15 mg/kg. Antimony and lead were detected above the human health PCL at the demolition pit/fall out zone. Antimony was detected at 15.4 mg/kg and lead was detected at 811 mg/kg. An Ecological Risk assessment was also completed as part of the RI. Based on the results, an ecological PCL was developed for antimony, copper and lead. The ecological PCL is the critical PCL at this site. The critical PCLs are 2.6 mg/kg for antimony, 92 mg/kg for copper and 75 mg/kg for lead.

A Draft Record of Decision (ROD) was prepared in July 2017 and has selected Alternative 4 (Subsurface Removal and Surface Clearance with Land Use Controls (LUCs) and Five Year Reviews) as the preferred remedy for source areas 5 and 6 at the subject site.

Cleanup Strategy

The Draft ROD will be finalized by Army National Guard staff. It is assumed a soil excavation and lead fragment recovery will be completed on the first 12 inches of portions of the face of the Impact Berm (Source Area 5), the range floor and the Pit Area (Source Area 6). The soil will be stabilized and placed back on the excavated area and regraded. LUCs and five-year reviews will be required.

SITE CLOSEOUT SUMMARY

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	None
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	A RAB solicitation was posted in the local newspaper in FY14. No interest was expressed. A Community Involvement Plan was not required for compliance sites. A plan will be prepared.
Administrative Record is located at:	Texas Military Forces 2200 West 35th Street Building #1 Austin, TX 78703 512-782-5753
Information Repository is located at:	Texas Military Forces 2200 West 35th Street Building #1 Austin, TX 78703 512-782-5753
Current Technical Assistance for	N/A
Public Participation (TAPP):	
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

LAND USE CONTROLS (LUC) SUMMARY

EL CAMPO/ARMORY

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	. 1
Phase Translation Table	. 3
Site Alias List	. 4
INSTALLATION RESTORATION PROGRAM Sites	. 5
TX2020-02-P_EL CAMPO PFAS CONT	.6
Site Closeout Summary	. 8
Community Involvement	. 9
Five-Year / Periodic Review Summary	10
Review Summary Table1	10
ROD/DDs associated with the last Five-Year/Periodic Review	10
Results, Actions & Plans1	10
Land Use Controls (LUC) Summary	11

ACRONYMS

Acronym	Definition	
AEDB-R	Army Environmental Database - Restoration	
AOI	Area of Interest	
СС	Compliance-Related Cleanup	
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980	
DD	Decision Document	
DERP	Defense Environmental Restoration Program	
ENV	Environmental	
FS	Feasibility Study	
FY22	Fiscal Year 2022	
GAC	Granular Activated Carbon	
GWTS	Groundwater Treatment System	
НА	Health Advisory	
HQAES	Headquarters Army Environmental System	
IR	Installation Restoration	
IRA	Interim Remedial Action	
LTM	Long-Term Management	
LUC	Land Use Control	
MR	Munitions Response	
MRSPP	Munitions Response Site Prioritization Protocol	
ng/L	Nanograms Per Liter	
OSD	Office of Secretary of Defense	
РА	Preliminary Assessment	
PFAS	Per- and Polyfluoroalkyl Substances	
PFBS	Perfluorobutanesulfonic Acid	
PFHxS	Perfluorohexanesulphonic Acid	
PFNA	Perfluorononanoic Acid	
PFOA	Perfluorooctanoic Acid	
PFOS	Perfluorooctanesulfonic Acid	

Acronym	Definition	
RA(C)	Remedial Action (Construction)	
RA(O)	Remedial Action (Operations)	
RC	Response Complete	
RCRA	Resource Conservation and Recovery Act	
RD	Remedial Design	
RI	Remedial Investigation	
RIP	Remedy-In-Place	
ROD	Record of Decision	
RPB	Roy P. Benavidez	
RRSE	Relative Risk Site Evaluation	
RSL	Regional Screening Level	
SI	Site Inspection	
SL	Screening Level	
TXARNG	Texas Army National Guard	
USEPA	US Environmental Protection Agency	
UST	Underground Storage Tank	
WBS	Work Breakdown Structure	

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) ©(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
5071A.1002	TX2020-02-P_EL CAMPO PFAS CONT	

EL CAMPO/ARMORY

INSTALLATION RESTORATION PROGRAM SITES

TX2020-02-P_EL CAMPO PFAS CONT

HQAES ID: 5071A.1002		Start	End
Alias: None	PA	8/11/2017	2/12/2020
Regulatory Driver: CERCLA			
RRSE: Not assigned	SI	9/19/2019	1/15/2022
MRSPP: Not assigned	RI/FS	9/15/2022	9/15/2029
RIP Date: 9/15/2029	RD		
RC Date: 9/15/2029	IRA		
RC Reason: Not assigned	RA(C)		
Program: ENV Restoration, Army			
Subprogram: IR	RA(O)		
	LTM		

Site Narrative

The Roy P. Benavidez (RPB) EI Campo Armory is located in Wharton County at 1552 County Road 406, El Campo, Texas, approximately 5 miles west of the Colorado River in southeast Texas. The 20-acre facility is bordered on the north by residential properties, on the west by American Legion baseball fields, and undeveloped agricultural land surrounds the remainder of the facility. The facility has been occupied by the Texas Army National Guard (TXARNG) since approximately 1959; prior to this time, the property was undeveloped. Historically, a portion of the RPB EI Campo property was used as a small arms firing range consisting of two firing platforms and a backstop/bermed area; however, the firing range is no longer in use. The facility has been used to muster troops, maintain vehicles, and clean weapons. The facility property is currently used primarily by a TXARNG engineering company.

Drinking water from the facility's potable well was previously sampled for per- and polyfluoroalkyl substances (PFAS) by the National Guard Bureau in April 2017. Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected above the combined US Environmental Protection Agency (USEPA) Health Advisory (HA) of 70 nanograms/liter (ng/L). In response, RPB El Campo Armory switched to bottled water at that time, and in August 2018, a granular activated carbon (GAC) groundwater treatment system (GWTS) was installed to reduce the levels of PFOS and PFOA in the facility's drinking water. After groundwater was treated through the new GAC GWTS, detected concentrations of PFOS and PFOA were observed to be below the combined USEPA HA of 70 ng/L.

In response to the exceedance of the USEPA HA, a Preliminary Assessment (PA) and Site Inspection (SI) was performed. A PA was completed at El Campo to assess potential PFAS release areas and exposure pathways to receptors. Three areas of interest (AOIs) were identified at El Campo Armory: AOI 1 – Weapons Cleaning Area; AOI 2 – Trash Pit; and AOI 3 – Septic Leach Field. There is potential for the use or release of PFAS-containing materials to have occurred at El Campo Armory in soil, groundwater, surface water, or sediment.

A SI was performed in August 2020 that included collection of soil and groundwater samples. After the SI report was finalized, SI data were reevaluated to comply with the July 6, 2022, Office of the Secretary of Defense (OSD) updated regional screening levels (RSL). Based upon the SI data and in compliance with

EL CAMPO/ARMORY Installation Action Plan

the updated RSLs, groundwater RSLs were exceeded for PFOS in groundwater at AOI 2 with a maximum detection of 12.5 ng/L. Additionally, detections in groundwater for PFOS and PFOA at AOI 3 exceeded their individual RSLs with maximum concentrations of 56.5 ng/L and 20.3 ng/L, respectively. There were no detections of PFOS, PFOA, perfluorobutanesulfonic acid (PFBS), perfluorononanoic acid (PFNA), or perfluorohexanesulphonic acid (PFHxS) in soil. The original SI findings support that further investigation was warranted in the form of a Remedial Investigation (RI)/Feasibility Study (FS) at AOI 3. Due to the exceedance of the updated RSL for PFOA, further investigation is also warranted at AOI 2. The RI was put under contract in late September 2022.

The subject site was tracked as 5071A.1001 under the Compliance-related Cleanup (CC) program. In June 2022, the site became Defense Environmental Restoration Program (DERP) eligible.

Cleanup Strategy

A RI/FS is needed at this site, and RI portion has been funded. FS and Decision Document (DD) costs will require future funding. Further actions cannot be determined until after the RI/FS is complete.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
5071A.1001	CCTX2020-02-P_EL CAMPO PFAS CONT	6/17/2022	Compliance Cleanup

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC)	N/A
Establishment Date:	
Community Involvement Plan (Date	TBD
Published):	
Restoration Advisory Board (RAB)	N/A
Establishment Date:	
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Community Involvement Plan, Administrative Record and
	Information Repository will all be developed as the project
	progresses.
Administrative Record is located at:	TBD
Information Repository is located at:	TBD
Current Technical Assistance for	N/A
Public Participation (TAPP):	
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

LAND USE CONTROLS (LUC) SUMMARY

ELLINGTON FIELD

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

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ACRONYMS

Acronym	Definition
AASF	Army Aviation Support Facility
AEDB-R	Army Environmental Database - Restoration
ANG	Air National Guard
ARNG	Army National Guard
AOI	Area of Interest
СС	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DCE	Dichloroethene
DD	Decision Document
DoD	Department of Defense
ENV	Environmental
FS	Feasibility Study
ft	Feet
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
JRB	Joint Reserve Base
LTM	Long-Term Management
LUC	Land Use Control
mg/kg	Milligram/Kilogram
mg/L	Milligram/Liter
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NASA	National Aeronautics and Space Administration
РА	Preliminary Assessment
PAL	Preliminary Action Level
PFAS	Per- and Polyfluoroalkyl Substances
PFBS	Perfluorobutanesulfonic Acid

Acronym	Definition
PFHxS	Perfluorohexanesulfonic Acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SL	Screening Level
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethene
TRC	Technical Review Committee
TXARNG	Texas Army National Guard
UST	Underground Storage Tank
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
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.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
5082A.1001	CCTX000004 HYDRAULIC LIFT-BLDG 4	
5082A.1002	CCTX2021-01-P_ELLINGTON FIELD PFAS CONT	

ELLINGTON FIELD

COMPLIANCE CLEANUP SITES

CCTX000004 HYDRAULIC LIFT-BLDG 4

HQAES ID: 5082A.1001		Start	End
Alias: None		12/16/2014	7/26/2016
Regulatory Driver: CERCLA	PA		
RRSE: Not assigned	SI	12/16/2014	7/26/2016
MRSPP: Not assigned		1/1/2025	12/31/2029
RIP Date: 12/31/2029	RD		
RC Date: 12/31/2029			
RC Reason: Not assigned	RA(C)		
Program: Compliance Cleanup			
Subprogram: CC	RA(O)		
	LTM		

Site Narrative

LaPorte Air National Guard (ANG) Station is a geographically separated unit of Ellington Field and is located 7.4 miles northeast of Ellington Field, Houston. The ANG acquired the property in 1948 and the Texas Army National Guard (TXARNG) acquired the 5.912 acre property from the ANG in June 2016. The TXARNG has never occupied or used the property for any of its activities and currently has no planned use for it. Building 4 is a small 1200 square foot building and was put into service in Jan 1970 by the ANG and used as a vehicle maintenance shop. The building includes a hydraulic lift installed in 1962. The lift consisted of an aboveground oil reservoir and control box, pipe chase with hydraulic lines, and two vertical cylinders located below grade. The rear cylinder had a fixed location, and the front cylinder was moveable. The front cylinder was located in a trench and could be moved forward or backward to align with the vehicle being hoisted. The below-grade componenents of the system extended between 8 and 10 feet (ft) below grade.

A Phase II Environmental Baseline Survey, dated Aug 2006, was conducted at Building 4 where subsurface soil and groundwater sample analysis results show elevated concentrations of Trichloroethene (TCE) and its degradation products. A Preliminary Assessment (PA)/Site Inspection (SI) conducted by the ANG, dated July 2016, included a site designated as TU006 – Hydraulic Lift – Building 4. Eleven soil samples (including a duplicate) and six groundwater samples (including a duplicate) were collected at site TU006 . Trichloroethene (TCE), cis-1 ,2-dichloroethene (DCE), trans-1,2-DCE, and vinyl chloride were detected in at least one soil sample. TCE concentrations exceeded the Preliminary Action Level (PAL) (0.034 milligrams/kilogram (mg/kg)) in two of the soil samples. TCE and cis-1,2-DCE were detected in at least one groundwater sample above their respective PALs (0.005 milligrams/liter (mg/L) and 0.07 mg/L).

Cleanup Strategy

A Remedial Investigation (RI)/Feasibility Study (FS) will be completed. At this time there is insufficient information to plan for further actions.

CCTX2021-01-P_ELLINGTON FIELD PFAS CONT

HQAES ID: 5082A.1002 Alias: None Regulatory Driver: CERCLA RRSE: Not assigned MRSPP: Not assigned RIP Date: 9/15/2038 RC Date: 9/15/2038 RC Reason: Not assigned Program: Compliance Cleanup Subprogram: CC

Phases	Start	End
PA	8/11/2017	7/15/2020
SI	6/15/2021	9/30/2023
RI/FS	9/15/2031	9/15/2038
RD		
IRA		
RA(C)		
RA(O)		
LTM		

Site Narrative

Ellington Field Army Aviation Support Facility (AASF) occupies 17.6 acres of the northwest corner of the Ellington Field Joint Reserve Base (JRB), which was built in the 1970s. Ellington Field AASF is located in Harris County, Texas, approximately 16 miles southeast of downtown Houston and 11 miles west of Trinity Bay. Ellington Field AASF is home to the 149th Attack Reconnaissance Battalion of the TXARNG. The southern portion of Ellington Field JRB has been leased to the National Aeronautics and Space Administration (NASA) by the City of Houston. The Ellington Field JRB airfield is jointly used by Department of Defense (DoD) and private parties. Ellington Field JRB was officially deactivated by the Air Force in 1976, and all Air Force Reserve squadrons were transferred to other military facilities; however, the TXARNG, Texas ANG, US Army Reserve, US Navy Reserve, US Marine Corps Reserve, US Coast Guard, and the Civil Air Patrol still maintain a military presence at the JRB. In 2009, the Air Force issued a permit with a term expiring in 2039 for the TXARNG's use of land and facilities at Ellington Field Air National Guard Base.

In 2020, a PA was performed at Ellington Field AASF that identified two Areas of Interest (AOIs) where per- and polyfluoroalkyl substances (PFAS)-containing materials may have been used, stored, disposed, or released historically.

SI field activities were conducted from 1 to 9 June 2022 and consisted of utility clearance, direct push boring, soil sample collection, temporary monitoring well installation, grab groundwater sample collection, and land surveying. At AOI 1, Perfluorooctanoic Acid (PFOA), Perfluorooctanesulfonic Acid (PFOS), Perfluorohexanesulfonic Acid (PFHxS), and Perfluorobutanesulfonic Acid (PFBS) were detected in groundwater at concentrations above their screening levels (SLs). Though no groundwater was sampled within AOI 2 (the entire area is covered by flight line concrete), PFOA, PFOS, PFHxS, and PFNA were detected at concentrations above their SLs in groundwater in nearby wells upgradient and cross-gradient of AOI 2. Based on these exceedances of SLs in groundwater, both AOIs warrant further evaluation in RI.

Cleanup Strategy

A SI is still underway and will be completed at the end of FY23. A RI/FS will be required. Further actions cannot be determined until the RI/FS is complete.

SITE CLOSEOUT SUMMARY

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	TBD
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Community Involvement Plan, Administrative Record and Information Repository will all be developed as the project progresses.
Administrative Record is located at:	TBD
Information Repository is located at:	TBD
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

LAND USE CONTROLS (LUC) SUMMARY

GRAND PRAIRIE [Dallas Naval Air Station (DNAS)]

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	. 1
Phase Translation Table	. 3
Site Alias List	. 4
INSTALLATION RESTORATION PROGRAM Sites	. 5
TX2020-03-P_GRAND PRAIRIE PFAS CONT	. 6
Site Closeout Summary	. 8
Community Involvement	. 9
Five-Year / Periodic Review Summary	10
Review Summary Table	10
ROD/DDs associated with the last Five-Year/Periodic Review	10
Results, Actions & Plans	10
Land Use Controls (LUC) Summary	11

ACRONYMS

Acronym	Definition	
AASF	Army Aviation Support Facility	
AEDB-R	Army Environmental Database - Restoration	
AFFF	Aqueous Film-Forming Foam	
AOI	Area of Interest	
СС	Compliance-Related Cleanup	
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980	
DD	Decision Document	
DERP	Defense Environmental Restoration Program	
DNAS	Dallas Naval Air Station	
ENV	Environmental	
FS	Feasibility Study	
FY22	Fiscal Year 2022	
HQAES	Headquarters Army Environmental System	
IR	Installation Restoration	
IRA	Interim Remedial Action	
LTM	Long-Term Management	
LUC	Land Use Control	
MR	Munitions Response	
MRSPP	Munitions Response Site Prioritization Protocol	
OMS	Organizational Maintenance Shop	
ng/L	Nanogram/Liter	
OSD	Office of the Secretary of Defense	
PA	Preliminary Assessment	
PFAS	Per- and Polyfluoroalkyl Substances	
PFBS	Perfluorobutanesulfonic Acid	
PFHxS	Perfluorohexanesulfonic Acid	
PFOA	Perfluorooctanoic Acid	
PFOS	Perfluorooctanesulfonic Acid	

Acronym	Definition	
RAB	Restoration Advisory Board	
RA(C)	Remedial Action (Construction)	
RA(O)	Remedial Action (Operations)	
RC	Response Complete	
RCRA	Resource Conservation and Recovery Act	
RD	Remedial Design	
RI	Remedial Investigation	
RIP	Remedy-In-Place	
ROD	Record of Decision	
RRSE	Relative Risk Site Evaluation	
SI	Site Inspection	
SL	Screening Level	
TAPP	Technical Assistance for Public Participation	
TRC	Technical Review Committee	
TXARNG	Texas Army National Guard	
UST	Underground Storage Tank	
WBS	Work Breakdown Structure	

PHASE TRANSLATION TABLE

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

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
5068A.1002	TX2020-03-P_GRAND PRAIRIE PFAS CONT	

GRAND PRAIRIE (DNAS)

INSTALLATION RESTORATION PROGRAM SITES

GRAND PRAIRIE (DNAS) Installation Action Plan

TX2020-03-P_GRAND PRAIRIE PFAS CONT

HQAES ID: 5068A.1002	Phases	Start	End
Alias: None	ΡΑ	8/11/2017	7/15/2020
Regulatory Driver: CERCLA	SI	12/6/2019	10/31/2022
RRSE: Not assigned	RI/FS	9/15/2022	9/15/2029
MRSPP: Not assigned RIP Date: 9/15/2029	RD		9/13/2029
RC Date: 9/15/2029			
RC Reason: Not assigned			
Program: ENV Restoration, Army	RA(C)		
Subprogram: IR	RA(O)		
	LTM		

Site Narrative

Grand Prairie Army Aviation Support Facility (AASF), home to the 149th Aviation Regiment of the Texas Army National Guard (TXARNG), is within the southwest portion of the former DNAS, which was decommissioned in 1998. The facility is 12 miles southwest of downtown Dallas and is situated adjacent to the northwest shore of Mountain Creek Lake, on property that overlaps into the cities of Dallas and Grand Prairie, Texas. TXARNG began leasing approximately 40 acres of land situated in Dallas County, Texas in 1975. Historically, the DNAS has provided support to the Texas Air National Guard, US Army Reserve, TXARNG, and various Navy and Marine groups. With the exception of TXARNG operations, the majority of military operations ceased at DNAS in September 1998, and the air station was put into caretaker status. The current TXARNG facility houses a hangar, a wash rack, fuel station, ramp and flight line, a hazardous materials storage building, an organizational maintenance shop (OMS), and an armory. The Grand Prairie AASF Hangar does not have an aqueous film-forming foam (AFFF) fire suppression system. Current activities at the Grand Prairie AASF include helicopter maintenance and training.

A Preliminary Assessment (PA) was completed at Grand Prairie AASF to assess potential per- and polyfluoroalkyl substances (PFAS) release areas and exposure pathways to receptors. Three areas of interest (AOIs) were identified at Grand Prairie during the PA. Based on interviews with current AASF personnel, reported historical AFFF releases are associated with the AFFF fire extinguisher testing/training at the wash rack and flight line ramp. Additionally, AFFF was stored in a firetruck historically located in the facility. These indicate the potential for PFAS contamination in surface and subsurface soil, surface water and sediment, and shallow groundwater to intercept one or more receptors.

A Site Inspection (SI) was performed in March 2021 that included the collection of soil and groundwater samples. After the SI report was issued, SI data were reevaluated to comply with the July 6, 2022 Office of the Secretary of Defense (OSD) updated screening levels (SL). Based upon the SI data and in compliance with the updated SLs, groundwater SLs were exceeded for Perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorobutanesulfonic acid (PFBS) at AOIs 1 and 2, and at the northeastern facility boundary with maximum concentrations of 369 nanograms per liter (ng/L), 39

GRAND PRAIRIE (DNAS) Installation Action Plan

ng/L, and 946 ng/L, respectively. Groundwater concentrations of PFOA and perfluorohexanesulfonic acid (PFHxS) at AOI 2 exceeded SLs with maximum concentrations of 9.71 ng/L and 68.6 ng/L, respectively. Detections in soil for all analytes were below the SLs. Based on the results of the SI and application of the new SL guidance, further evaluation of all three AOIs along with the northeastern facility boundary is warranted in the Remedial Investigation (RI). The RI was put under contract in late September 2022.

The subject site was tracked as 5068A.1001 under the Compliance-related Cleanup (CC) program. In June 2022, the site became Defense Environmental Restoration Program (DERP)-eligible.

Cleanup Strategy

A RI/Feasibility Study (FS) is needed at this site, and RI portion has been funded. FS and Decision Document (DD) costs will require future funding. Further actions cannot be determined until after the RI/FS is complete.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
5068A.1001	CCTX2020-03-P_GRAND PRAIRIE PFAS CONT	6/17/2022	Compliance Cleanup

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC)	N/A
Establishment Date:	
Community Involvement Plan (Date	TBD
Published):	
,	N1/A
Restoration Advisory Board (RAB)	N/A
Establishment Date:	
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Community Involvement Plan, Administrative Record and
-	Information Repository will all be developed as the project
	progresses.
Administrative Record is located at:	TBD
Information Panasitony is located at	TBD
Information Repository is located at:	עסו
Current Technical Assistance for	N/A
Public Participation (TAPP):	
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

MARTINDALE Army Aviation Support Facility (AASF)

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	1
Phase Translation Table	3
Site Alias List	4
INSTALLATION RESTORATION PROGRAM Sites	5
TX2020-04-P_MARTINDALE PFAS CONT	6
Site Closeout Summary	7
Community Involvement	8
Five-Year / Periodic Review Summary	9
Review Summary Table	9
ROD/DDs associated with the last Five-Year/Periodic Review	9
Results, Actions & Plans	9
Land Use Controls (LUC) Summary	10

ACRONYMS

Acronym	Definition
AASF	Army Aviation Support Facility
AEDB-R	Army Environmental Database - Restoration
AOI	Area of Interest
ARNG	Army National Guard
СС	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
DERP	Defense Environmental Restoration Program
ENV	Environmental
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
OSD	Office of the Secretary of Defense
PA	Preliminary Assessment
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design

Acronym	Definition	
RI	Remedial Investigation	
RIP	Remedy-In-Place	
ROD	Record of Decision	
RRSE	Relative Risk Site Evaluation	
SI	Site Inspection	
SL	Screening Level	
TAPP	Technical Assistance for Public Participation	
TRC	Technical Review Committee	
UST	Underground Storage Tank	
WBS	Work Breakdown Structure	

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
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.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
5100A.1002	TX2020-04-P_MARTINDALE PFAS CONT	

MARTINDALE AASF

INSTALLATION RESTORATION PROGRAM SITES

TX2020-04-P_MARTINDALE PFAS CONT

HQAES ID: 5100A.1002	Phases	Start	End
Alias: None	PA	8/11/2017	7/15/2020
Regulatory Driver: CERCLA			
RRSE: Not assigned	SI	5/10/2020	5/31/2023
MRSPP: Not assigned	RI/FS	9/15/2030	9/15/2037
RIP Date: 9/15/2037	RD		
RC Date: 9/15/2037	IRA		
RC Reason: Not assigned	RA(C)		
Program: ENV Restoration, Army	RA(O)		
Subprogram: IR			
	LTM		

Site Narrative

Martindale Army Aviation Support Facility (AASF) is located within the San Antonio city limits, southeast of the intersection of Interstate 10 and Interstate 410. The facility comprises approximately 220 acres of mostly grassland, as well as a storage hangar, maintenance hangar, armory, and flight lines. The facility was opened by the United States Air Force in 1943 for the purpose of training and was restricted to take offs and landings. The property deed was transferred from the United States Air Force to the Army National Guard (ARNG) in 1954.

A Preliminary Assessment (PA) was completed at Martindale AASF to assess potential per- and polyfluoroalkyl substances (PFAS) release areas and exposure pathways to receptors. Three areas of interest (AOIs) were identified at Martindale during the PA. These releases indicate the potential for PFAS contamination in surface and subsurface soil to intercept one or more receptors. Site Inspection (SI) was initiated in 2020. SI sampling results from the three AOIs were compared to Office of Secretary of Defense (OSD) Screening Levels (SLs). At AOI 1, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) exceeded SLs in groundwater. At AOI 2, PFOS exceeded SLs in groundwater. At AOI 3, PFOS was detected in groundwater at a concentration above the SL. The SI has determined that further investigation as a Remedial Investigation (RI) is warranted at all three AOIs.

The subject site was tracked as 5100A.1001 under the Compliance-related Cleanup (CC) program. In March 2023, the site became Defense Environmental Restoration Program (DERP)-eligible.

Cleanup Strategy

A RI/Feasibility Study (RI/FS) is required. Once validated sampling results are received, future actions will be evaluated.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date	Program Code
5100A.1001	CCTX2020-04-P_MARTINDALE PFAS CONT	4/30/2023	Compliance Cleanup

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC)	N/A
Establishment Date:	
Community Involvement Plan (Date	TBD
Published):	
Restoration Advisory Board (RAB)	N/A
Establishment Date:	
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Community Involvement Plan, Administrative Record and
	Information Repository will all be developed as the project
	progresses.
Administrative Desend is leasted at	
Administrative Record is located at:	TBD
Information Repository is located at:	TBD
Current Technical Assistance for	N/A
Public Participation (TAPP):	
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

SAGINAW

Army Cleanup Program

Installation Action Plan

2023

CONTENTS

Acronyms	. 1
Phase Translation Table	. 3
Site Alias List	. 4
Installation Restoration Program Sites	. 5
CC0001_Saginaw Burn Pit Site	.6
Site Closeout Summary	. 9
Community Involvement	10
Five-Year / Periodic Review Summary	11
Review Summary Table	11
ROD/DDs associated with the last Five-Year/Periodic Review	11
Results, Actions & Plans	11
Land Use Controls (LUC) Summary	12

ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
СС	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DCE	Dichloroethylene
DD	Decision Document
DoD	Department of Defense
ENV	Environmental
ERD	Enhanced Reductive De-Chlorination
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MNA	Monitored Natural Attenuation
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NGB	National Guard Bureau
PA	Preliminary Assessment
PCL	Protective Concentration Limit
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RAER	Response Action Effectiveness Report
RA(O)	Remedial Action (Operations)
RAP	Response Action Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design

Acronym	Definition	
RI	Remedial Investigation	
RIP	Remedy-In-Place	
ROD	Record of Decision	
RPB	Reactive Permeable Barrier	
RRSE	Relative Risk Site Evaluation	
SI	Site Inspection	
TAC	Texas Administrative Code	
TAPP	Technical Assistance for Public Participation	
TCE	Trichloroethene	
TCEQ	Texas Commission on Environmental Quality	
TRC	Technical Review Committee	
TXARNG	Texas Army National Guard	
USACE	US Army Corps of Engineers	
USEPA	US Environmental Protection Agency	
UST	Underground Storage Tank	
WBS	Work Breakdown Structure	
µg/L	Micrograms Per Liter	

PHASE TRANSLATION TABLE

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

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
5096A.1001	CC0001_Saginaw Burn Pit Site	TX65203005



INSTALLATION RESTORATION PROGRAM SITES

CC0001_Saginaw Burn Pit Site

HQAES ID: 5096A.1001	Phases	Start	End
Alias: TX65203005			
Regulatory Driver: CERCLA	PA	4/30/1981	2/28/1993
	SI		
RRSE: Not assigned	RI/FS	9/30/2002	9/30/2009
MRSPP: Not assigned	RD		
RIP Date: 6/30/2011	IRA		
RC Date: 9/30/2053	RA(C)	3/31/2010	6/30/2011
RC Reason: Not assigned	RA(O)	6/30/2011	9/30/2053
Program: ENV Restoration, Army	LTM		
Subprogram: IR			

Site Narrative

The site was used by the Globe Aircraft Company, an army contractor, beginning in 1941 and was later used by the Bell Helicopter-Textron prior to acquisition by the Texas Army National Guard (TXARNG). The US Environmental Protection Agency (USEPA) conducted a site analysis for the property in July 1990 which consisted of aerial photographic analysis starting with an April 1942 photograph. The burn pit is visible in the November 1957 and February 1963 photos and smoke is noted as coming out of the northwest corner in the 1957 photograph. The next photograph taken in March 1975 no longer shows the pit. Knowledge of what was burned and what was used to start the fires is limited, however many different chemicals were used at this facility over the years and it is likely that some hazardous chemicals were either burned or used as an ignition source for the burn pit. Although not shown on aerial photographs, construction activities at the site uncovered an area of burned wastes north of the known burn pit site. This area was included in the investigation of the burn pit.

Soil and groundwater sampling and analysis were conducted as part of the Affected Property Assessment Report, dated August 2004. Offsite monitoring well installation and sampling was conducted as a recommendation of that report in August 2008. Groundwater analytical results indicate that the groundwater at the site has been impacted by chlorinated compounds. Trichloroethene (TCE) up to 0.190 micrograms per liter (μ g/L) exceeds the state critical Protective Concentration Limit (PCL) of 0.005 μ g/L. Cis-1,2-Dichloroethylene (DCE) up to 0.138 μ g/L exceeds the PCL of 0.07 ug/L, 1,1-DCE up to 0.015 μ g/L exceeds the PCL of .007 μ g/L and Vinyl Chloride up to 0.004 μ g/L exceeds the PCL of 0.002 μ g/L. Results from samples collected from monitoring wells installed near the property boundary indicated that the contaminant plume is likely to have extended offsite. Groundwater sampling conducted in summer 2006 showed contamination in off-site wells.

In 2007, additional wells were installed further to the east offsite in order to horizontally delineate the contaminated groundwater plume. Analytical results of samples from these additional off-site wells detected concentrations of TCE above PCLs in July 2007. The Texas Commission on Environmental Quality (TCEQ) required that the extent of the plume be defined and requested additional off-site and on-

site wells. These wells were installed on another off-site property to the south as well as additional wells north on site. In order to delineate the plume vertically, a deep 100 foot well in limestone was installed to show whether the next lower water bearing unit was or was not impacted by TCE.

In September 2008, five additional wells were installed to delineate the plume and one deep well was installed to confirm that the next groundwater bearing unit had not been impacted. Results indicate that the plume has been delineated and that deeper groundwater bearing units have not been impacted.

A Draft Response Action Plan (RAP) was submitted to TCEQ in February 2010 and regulatory approval was received March 2011. This RAP selected Monitored Natural Attenuation (MNA) as the remedy for the site. At this time, quarterly groundwater sampling had been completed and semiannual sampling begun. Response Action Effectiveness Reports (RAERs), which document the results of semiannual groundwater sampling events, were submitted to the regulators for review. After the May 2014 RAER submission, TCEQ requested revisions to the March 2011 RAP. Since cleanup is not below PCLs, TCEQ required that a deed notice be filed that gives notice that the groundwater on site exceeds the PCLs and defines the boundary of that area with a survey map and description. After much discussion with the US Army Corps of Engineers (USACE), announced that they do not file deed restrictions because they cannot "encumber the property" for the future.

A Five Year review was completed at the site in 2015. The review determined a deed notice was never completed at the site as required by the March 2011 RAP. Sampling results indicated that groundwater contamination is not decreasing and because no deed notice could be filed, TCEQ requires cleanup under Remedy A which is to cleanup to below PCLs and a new RAP would be needed to meet the Remedy A goals.

On 10 August 2017, a Revised RAP was submitted to the TCEQ for review and approval. The Revised RAP prescribed a cleanup remedy using an In-Situ Reactive Permeable Barrier (RPB) for both Chemical Reduction and Enhanced Reductive De-Chlorination (ERD). The TCEQ reviewed and approved the Revised RAP on 28 September 2017, stating that the Revised RAP fulfilled the requirements of 30 Texas Administrative Code (TAC) Chapter 350.94. The Revised RAP and Draft Record of Decision (ROD) have been reviewed by the National Guard Bureau (NGB) but have not been signed, nor has the Revised RAP been implemented. TCEQ has requested an update and semi-annual groundwater sampling was initiated for FY22 and extended to FY23.

The most recent sampling events revealed that the TCE concentrations are slowly declining and the expected daughter products of TCE degradation (1,1,1-DCE and Vinyl Chloride) are increasing which indicates that concentrations of TCE will decline naturally. Additionally, the latest sampling event that included sampling of all the wells, found that TCE was non-detect in the wells surrounding the site toward Little Fossil creek to the west and south. In review of contour maps of TCE, 1,1,1-DCE, and Vinyl Chloride concentrations, it is apparent that the TCE is staying in this relatively small area. However, a small part of this plume extends to the east into privately owned and a City of Saginaw property that was recently conveyed to the city when the private landowner subdivided the land. This part of the property is inside of the flood plain and cannot be developed. The private property is all commercial or possibly light industrial land use.

In light of these recent findings, MNA is again recommended as the cleanup remedy. It also appears that the US Government can file a deed notice for the property which is not a deed restriction or what TCEQ calls a restrictive covenant. Therefore, the current plan is to proceed with the directing the USACE to sign and file a deed notice for this part of the property. This time, TXARNG will have General Council support for this action and examples of deed notices that have been filed at other Department of Defense (DoD) real property in Texas for the same purpose.

Another Five-Year Review was conducted in 2020, and no issues were identified that would call into question the protectiveness of the remedy.

Cleanup Strategy

A Revised RAP will be submitted to TCEQ recommending MNA. It is assumed MNA will continue indefinitely. This work is being completed under the Remedial Action (Operations) [RA(O)] phase because it was the open phase at the site.

SITE CLOSEOUT SUMMARY

None

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	201103
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	Texas Military Forces 2200 West 35th Street Building #1 Austin, TX 78703 512-782-5753
Information Repository is located at:	Texas Military Forces 2200 West 35th Street Building #1 Austin, TX 78703 512-782-5753
Current Technical Assistance for	N/A
Public Participation (TAPP):	
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

Status	Start	End
COMPLETE	201405	201502
COMPLETE	201910	202007
PLANNED	202410	202502

ROD/DDs associated with the last Five-Year/Periodic Review

Associated ROD/DD Name	Sites
Response Action Plan	5096A.1001

Results, Actions & Plans

Results	Actions	Plans
The groundwater monitoring aspect of the response action is functioning as intended. The establishment of deed notices has not been completed. Access to groundwater is effectively prevented.	The RAP should be revised to remove the deed notice requirement to ensure that the RAP reflects actual implementation of the remedy.	Revise the RAP.

LAND USE CONTROLS (LUC) SUMMARY

None