

FY2012

FORT RILEY

Army Defense Environmental Restoration Program

Installation Action Plan

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, the Installation Management Command (IMCOM)-Central, the US Army Environmental Command (USAEC), Fort Riley (FTRI), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

Acronyms

AI	Active/Inactive
AEDB-CC	Army Environmental Database - Compliance-related Cleanup
AEDB-R	Army Environmental Database - Restoration
AGL	Abandoned Gasoline Line
AOC	Area of Concern
AST	Aboveground Storage Tank
BRAC	Base Realignment and Closure
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFI	NW Camp Funston WWI Incinerator
CHLF	Custer Hill Sanitary Landfill
CMI(C)	Corrective Measures Implementation (Construction)
COC	Contaminant of Concern
CR	Compliance Restoration
CS	Confirmatory Sampling
CTT	Closed, Transferred, Transferring
cu yd	Cubic Yards
DCE	Dichloroethylene
DCF	Dry Cleaning Facility
DCFA	Dry Cleaning Facilities Area
DD	Decision Document
DDESB	Department of Defense Explosives Safety Board
DES	Design
DPE	Dual-Phase Extraction
DPW	Department of Public Works
DS/GS	Direct Support / General Support
EOD	Explosive Ordnance Disposal
ER,A	Environmental Restoration, Army
ESD	Explanation of Significant Differences
ESS	Explosive Safety Submissions
FFA	Federal Facility Agreement
FORSCOM	US Army Forces Command
FRA	Future Remedial Action
FTRI	Fort Riley
FY	Fiscal Year
GW	Groundwater
HRR	Historical Records Review
HRS	Hazard Ranking System
ID	Identification
IMCOM	Installation Management Command
INV	Investigation
IRA	Interim Remedial Action
ISC	Initial Site Characterization
K	Thousand
KDHE	Kansas Department of Health and Environment

Acronyms

KDWP	Kansas Department of Wildlife and Parks
KRBCA	Kansas Risk Based Corrective Action
KS	Kansas
LF	Landfill
LTM	Long-Term Management
LUC	Land Use Control
MAAF	Marshall Army Airfield
MCL	Maximum Contaminant Level
mm	millimeter
MRA	Munitions Response Area
MRS	Munitions Response Site
N/A	Not Applicable
NCDO	North Central District Office
NFA	No Further Action
OB	Open Burning
ODUSD(I&E)	Office of Deputy Undersecretary of Defense (Installation and Environment)
OU	Operable Unit
PCE	Tetrachloroethylene (Perchloroethylene)
POL	Petroleum, Oil and Lubricants
PP	Proposed Plan
PSF	Pesticide Storage Facility
RA(C)	Remdial Action (Construction)
RA(O)	Remedial Action (Operation)
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report
RC	Response Complete
RFA	RCRA Facility Assessment
RIP	Remedy-in-Place
RSK	Risk-Based Standards for Kansas
SEFL	Southeast Funston Landfill
SFL	Southwest Funston Landfill
SHSAR	Sherman Heights Small Arms Range
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TRC	Technical Review Committee
UPRR	Union Pacific Railroad
USACE	US Army Corps of Engineers
USEPA	US Environmental Protection Agency
UU/UE	Unlimited Use / Unrestricted Exposure
VOC	Volatile Organic Compound
WWI	World War I
WWII	World War II

Installation Information

Installation Locale

Installation Size (Acreage): 100775

City: Junction City

County: Clay, Geary, and Riley

State: Kansas

Other Locale Information

Fort Riley is located west of Manhattan (population 38,000) on 100,775 acres of land in portions of Clay, Geary, and Riley Counties in northeast Kansas. Interstate 70, Junction City (population 20,000), and Ogden (population 1,600) bound the installation to the south. Milford Lake (16,020 acres) bounds part of the western side of the installation.

Installation Mission

The mission of FTRI, as an installation of excellence, is to:

- work in close partnership with local, regional, and state communities,
- provide trained and ready forces to meet joint force requirements across the full spectrum of current and future operations,
- transform and manage unit readiness as directed by the Army campaign plan,
- execute unit re-stationing as directed by US Army Forces Command (FORSCOM),
- execute garrison operations as directed by the IMCOM, and
- conduct homeland defense operations and support civil authorities.

Lead Organization

Lead Executing Agencies for Installation

US Army Corps of Engineers (USACE), Omaha District

USACE, Kansas City District

US Geological Survey

Regulator Participation

Federal

US Environmental Protection Agency (USEPA), Region VII

State

Kansas Department of Health and Environment (KDHE), Bureau of Environmental Field Services
- North Central District Office (NCDO)

KDHE, Bureau of Environmental Remediation

National Priorities List (NPL) Status

A score of 33.8 was recorded on 01-AUG-90.

Date for RA(C) Completion: 201701

Date for NPL Deletion: TBD

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

RAB established 199709

Installation Program Summaries

IRP

Primary Contaminants of Concern: Metals, Perchlorate, Pesticides, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Affected Media of Concern: Groundwater, Sediment, Soil, Surface Water

MMRP

Primary Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Affected Media of Concern: Groundwater, Sediment, Soil, Surface Water

CR

Primary Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Affected Media of Concern: Groundwater, Soil

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	200701	200707	2007
Complete	201110	201209	2012
Complete	200201	200207	2002

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
Dry Cleaning Facilities Study Area	FTRI-027
Former Fire Training Area - MAAF	FTRI-019
RECORD OF DECISION - SW FUNSTON LANDFILL	FTRI-003
RECORD OF DECISION-PESTICIDE STORAGE FAC	FTRI-030
The 354 Area Solvent Detections	FTRI-031

Results The EPA, Region VII has provided comments that are being addressed.

Actions Finalize the document & obtain the signature of the Garrison Commander.

Plans Do another 5-Year Review in 2017.

Recommendations and Implementation Plans:

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Land Use Control (LUC) Summary

LUC Title: 354 Area

Site(s): FTRI-031

ROD/DD Title: The 354 Area Solvent Detections

Location of LUC

FTRI-031 354 Area Solvent Detection site extends from near building 430 on the north to the Kansas River on the south.

Land Use Restriction: Media specific restriction - restrict drinking water well installation, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200607

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200607

LUC Enforcement: 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC Title: Dry Cleaning Facilities

Site(s): FTRI-027

ROD/DD Title: Dry Cleaning Facilities Study Area

Location of LUC

The former Dry Cleaning Facilities Area (DCFA) is located in the southwest corner of the Main Post cantonment about 800 feet north of the Kansas River. The DCFA operated until 2002. The primary dry cleaning solvent was tetrachloroethylene (PCE).

Land Use Restriction: Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200802

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC Title: SW Funston Ldfl Controls

Land Use Control (LUC) Summary

Site(s): FTRI-003

ROD/DD Title: RECORD OF DECISION - SW FUNSTON LANDFILL

Location of LUC

Southwest Funston Landfill (Operable Unit 001) covers approximately 120 acres and is located in the southern portion of Fort Riley adjacent to the southwest corner of the Camp Funston cantonment area (Figure 1-1). It is bordered on the south by the Kansas River, on the north by Well House Road, on the west by a former meander bend in the Kansas River and on the east by Threemile Creek. The landfill lies entirely within the 100-year floodplain of the Kansas River.

Land Use Restriction: Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Prohibit installation of utility system lines through the site, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Landfill restriction - Restrict plantings that interfere LF cap or cover system (roots that penetrate the cap or cover system), Landfill restriction - Restrict vehicular traffic, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 199710

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200708

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

Cleanup Program Summary

Installation Historic Activity

The history of FTRI is closely linked to the history of American westward expansion and development. As early as the 1840s, travelers along the Oregon and Santa Fe Trails began a massive migration across the high plains of Kansas, which created the need for a series of military installations to protect them as they traveled west.

In 1852 Major E.A. Ogden established a temporary camp called Camp Center, north of the Kansas River, near the junction of the Smoky Hill and Republican Rivers. In 1853, the US Congress authorized establishment of a permanent installation there and renamed the encampment FTRI, in honor of Major General Bennett C. Riley who led the first military escort along the Santa Fe Trail in 1829.

Fort Riley evolved from a frontier outpost to a military training installation in the first 60 years following its inception in 1853. In the beginning, industry was limited to a few shops (e.g., blacksmiths) and storehouses. Early sewers dumped directly into the rivers. Military operations were limited to small arms, horse-mounted cavalry, and horse-drawn artillery. Practice ranges were located near the barracks areas in the lowlands, and river bluffs were used as natural backstops for the ranges.

During World War I (WWI), there was a build-up of forces at FTRI. Camp Funston was established during WWI and, in approximately three months, 1,401 temporary buildings were erected there to house troops. Camp Whitside was also built-up for WWI. Military training activities became more complex and the infrastructure more elaborate. Motor pools and auto repair shops replaced stables and blacksmith shops. Marshall Army Air Field became operational in 1921. The installation areas were electrified, and wastewater treatment plants were constructed.

Prior to World War II (WWII) and through the 1940s, FTRI expanded its transportation and industrial activities. Many motor pools were established in Camp Funston, Camp Whitside, Camp Forsyth, and the Main Post. Underground storage tanks (UST) were installed, and a gasoline pipeline was run from the rail spur on the north side of the Kansas River to Marshall Army Air Field. The installation infrastructure included laundry and dry cleaning facilities, numerous vehicle repair shops, boiler plants, and an asphalt plant.

Through the early years of WWII, the installation included the last vestiges of horse-mounted troops, including an animal dip facility on the rail spur for animals brought onto the installation. In 1949, the horse-mounted Cavalry was dissolved.

The heavy weapons training was focused on the main impact area, which was acquired in 1942, but small arms ranges were still prevalent along the river bluffs, especially in the Camp Forsyth, Camp Whitside, and Camp Funston areas. During the period between WWII and Vietnam, many of the temporary facilities built for WWII, especially those in Camp Forsyth, Camp Funston, and Camp Whitside, became obsolete and surplus, so they were demolished.

In 1955 the First Infantry Division was assigned to FTRI. Troop barracks and tactical equipment shops were built on Custer Hill and integrated with troop support facilities for health and recreational services. Family housing also expanded. Small arms training shifted to the ranges around the impact area.

During the Vietnam Era, environmental concerns came to the forefront. The wastewater treatment plants and controlled landfills were put into use. The older industrial activities were frequently upgraded or centralized. Transportation and industrial facilities that had been abandoned were demolished. A systematic review and upgrade of facilities focusing on several environmental concerns proceeded, including USTs, polychlorinated biphenyl (PCB)-containing transformers, and asbestos-containing materials used in buildings. With the passage of stricter federal and state laws governing air and water pollution, protection of natural resources, waste management, and environmental regulation progressively focused on the management of industrial and military activities.

Army personnel are trained at FTRI. The installation's history does not include large-scale manufacturing activities. Rather, development of FTRI included ancillary activities to support overall installation operations, including print shops, photographic processing facilities, laboratories, furniture repair, dry cleaning, paint shops, sewage treatment plants, and numerous vehicle maintenance and wash facilities.

Hazardous materials used include:

- Ordnance (of which there is no evidence of release of toxic chemical agents but there are indications that depleted uranium spotting rounds for the Davy Crockett weapon system may have been expended);
- Chlorinated solvents associated with furniture repair, dry cleaning, and cleaning of printing equipment;
- Pesticides for clearing of brush, pest and termite control, and routine maintenance of facility grounds;

Cleanup Program Summary

Installation Historic Activity

- A variety of small quantities of chemicals associated with laboratories;
- Silver-bearing solutions from the photographic processing and x-ray facilities;
- PCB fluids in electrical equipment; and
- Large quantities of petroleum-based fuels and cleaners associated with vehicle use, maintenance, and repair.

In addition to the waste outlined above, throughout its operational life the installation has generated typical, nonhazardous municipal waste and construction debris.

Past activities at FTRI have environmentally impacted several areas of the installation, primarily as the result of spills and leaks, and from previously approved waste disposal and handling practices. Cleanup of FTRI began in 1990 - 1991 in response to the Army's Installation Restoration Program (IRP) and the federal facility agreement (FFA).

Major tenants at FTRI include the Kansas Army National Guard, the Army Reserve, and the Irwin Army Community Hospital. In 1990, the installation was placed on the national priorities list (NPL) with a hazard ranking system (HRS) score of 33.8. An FFA was signed by the USEPA, Region VII, the KDHE, and the Army and became effective on Feb. 28, 1991. The FFA requires that the installation address all significant environmental releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

Installation Program Cleanup Progress

IRP

Prior Year Progress: FTRI-001 - Conduct limited groundwater (GW) sampling event and cover inspection
FTRI-003 - Conduct GW sampling event and cover and bank stabilization inspection
FTRI-009 - Continue the remedial investigation (RI) site characterization work
FTRI-027 - Conduct GW sampling event
FTRI-031 - Conduct GW sampling event
FTRI-056 - Continue oversight of the remediation effort
FTRI-057 - Continue operating the recovery system at the three sites
FTRI-074 - Continue the RI site characterization work

Future Plan of Action: FTRI-001-Cover repair, if needed; GW sampling-2013 and 2014
FTRI-003-Cover and bank stabilization repairs, if needed-2013
FTRI-009-Cont. RI/feasibility study (FS)/proposed plan (PP)/ROD-2013 and 2014; remedial design (RD)-2014
FTRI-027-GW sampling-2013 and 2014
FTRI-031-Work with regulators-site status-2013
FTRI-056-Cont. oversight-2013 and 2014
FTRI-057-Cont. operating the recovery systems at the three sites-2013 and 2014
FTRI-074-Cont. RI/FS/PP/ROD efforts in 2013 and 2014; RD-2014

MMRP

Prior Year Progress: FTRI-001-R-02 Complete RI/FS reports
FTRI-003-R-01 Complete RI fieldwork

Future Plan of Action: FTRI-001-R-02 Do PP/ROD/RD/remedial action (construction) [RA(C)] in 2013
FTRI-001-R-01 Complete RI/FS/PP/ROD in 2013

CR

Prior Year Progress: CC-FTRI-01: Conducted GW sampling and semiannual free-product recovery by manual bailing
CC-FTRI-09 (Buildings 388 and 5320: Defined the extent of the GW plume/free-product and continued GW monitoring and bailing at both sites

Future Plan of Action: CC-FTRI-01: GW sampling and semiannual free-product recovery by manual bailing; Install three new bedrock wells to more accurately monitor the plume.
CC-FTRI-09 Buildings 388 and 5320: Awaiting decision on 5320s status before proceeding with further work - Analyze data from 388 work in 2012 to determine what is needed to develop proper corrective action effort.

FORT RILEY
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 72/64

Installation Site Types with Future and/or Underway Phases

1	Explosive Ordnance Disposal Area (FTRI-009)
1	Incinerator (FTRI-074)
2	Landfill (FTRI-001, FTRI-003)
1	POL (Petroleum/Lubricants) Lines (FTRI-057)
1	Soil Contamination After Tank Removal (FTRI-056)
2	Spill Site Area (FTRI-027, FTRI-031)

Most Widespread Contaminants of Concern

Metals, Perchlorate, Pesticides, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern

Groundwater, Sediment, Soil, Surface Water

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1990
FTRI-008	PCB STORAGE CONEX (BUILDING 348)	FRA	IN-SITU SOIL TREATMENT	1991
FTRI-059	REMOVE USTS	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTRI-063	FMR BLDG 1044 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTRI-066	FMR BLDG 1245 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTRI-067	FMR BLDG 1539 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTRI-068	FMR BLDG 1637 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTRI-069	FMR BLDG 1890 DISPENSING IRA STATION	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1991
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FUNSTON	FRA	WASTE REMOVAL - SOILS	1992
FTRI-013	ABANDONED VOC TANKS NORTH OF IACH	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992
FTRI-049	MERCURY CONTAMINATION AREAS	FRA	REMOVAL	1992
FTRI-054	CUSTER HILL PX USTS BLDG 5320	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1992
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	OTHER	1994
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNSTON	FRA	WASTE REMOVAL - SOILS	1994
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	IRA	WASTE REMOVAL - SOILS	1994

IRP Summary

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
FTRI-035	NON-IMPACT AREA SMALL ARMS RANGES	IRA	WASTE REMOVAL - SOILS	1994
FTRI-060	MAINPOST PX GAS STATION / 218	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1994
FTRI-001	CUSTER HILL SANITARY LANDFILL	FRA	CAPPING	1995
FTRI-027	DRY CLEANING FACILITIES AREA	IRA	SOIL VAPOR TREATMENT	1995
FTRI-064	FMR BLDG 1090 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTRI-065	FMR BLDG 1190 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTRI-073	BLDG 8360 FUEL OIL UST	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	CAPPING	1996
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	IRA	BIOREMEDIATION	1996
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	IRA	SOIL VAPOR TREATMENT	1996
FTRI-070	FMR BLDG 2341 DISPENSING STATION	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1996
FTRI-003	SOUTHWEST FUNSTON LANDFILL	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1997
FTRI-003	SOUTHWEST FUNSTON LANDFILL	FRA	CAPPING	1997
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	IRA	WASTE REMOVAL - SOILS	1997
FTRI-062	TMP GAS STATION BLDG 388	IRA	FREE PRODUCT RECOVERY	1997
FTRI-063	FMR BLDG 1044 DISPENSING STATION	IRA	FREE PRODUCT RECOVERY	1997
FTRI-029	OLD INCINERATOR SITE SE-CAMP FUNSTON	IRA	WASTE REMOVAL - SOILS	2000
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	IRA	CAPPING	2001
FTRI-038	FORSYTH LANDFILL(S)	IRA	OTHER	2001
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	IRA	ALTERNATE WATER SUPPLY/WATER SUPPLY TREATMENT	2003
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	FRA	NATURAL ATTENUATION	2005
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	IRA	FREE PRODUCT RECOVERY	2005
FTRI-027	DRY CLEANING FACILITIES AREA	IRA	CHEMICAL REDUCTION/OXIDATION	2006
FTRI-027	DRY CLEANING FACILITIES AREA	IRA	EX SITU SOIL TREATMENT	2006
FTRI-027	DRY CLEANING FACILITIES AREA	IRA	BIOREMEDIATION - IN SITU GROUNDWATER	2006
FTRI-031	354 AREA SOLVENT DETECTIONS (354)	FRA	NATURAL ATTENUATION	2007
FTRI-027	DRY CLEANING FACILITIES AREA	FRA	NATURAL ATTENUATION	2008

IRP Summary

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
FTRI-027	DRY CLEANING FACILITIES AREA	FRA	INSTITUTIONAL CONTROLS	2008
FTRI-056	ABANDONED GASOLINE LINE	IRA	BIOREMEDIATION - IN SITU	2009
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	FRA	DUAL-PHASE EXTRACTION	2010
FTRI-056	ABANDONED GASOLINE LINE	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2011
FTRI-074	WWI INCINERATOR, NW CAMP FUNSTON	IRA	REMOVAL	2011
FTRI-056	ABANDONED GASOLINE LINE	FRA	REMOVAL	2012

Duration of IRP

Date of IRP Inception: 198312

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201502/202503

Date of IRP completion including Long Term Management (LTM): 204003

IRP Contamination Assessment

Contamination Assessment Overview

The Army initially began environmental restoration-related investigations as a result of the 1982 closure activities of the SFL where monitoring indicated groundwater contamination.

The installation was evaluated for placement on the NPL with an HRS score of 33.8. The placement on the NPL was announced in 1990. An FFA was signed in August 1990 to address the CERCLA and RCRA mandates. These seven IRP sites have been designated as OUs:

- FTRI-003 SFL (OU001),
- FTRI-030 pesticide storage facility (PSF)(OU002),
- FTRI-027 dry cleaning facilities area (DCFA) (OU003),
- FTRI-019 former fire training area-Marshall Army Airfield (MAAF) (OU004),
- FTRI-031 354 area solvent detections (354)(OU005),
- FTRI-009 open burning (OB)/open detonation (OD) ground (Range 16) (OB/OD)(OU006), and
- FTRI-074 WWI incinerator, NW camp funston (CFI) (OU007).

These sites have been identified as sites with contamination due to past operational activities which resulted in spills and releases to the environment. The primary contaminants of concern (COC) are chlorinated solvents and pesticides.

The SFL was operated from the mid-1950s through 1981. Post-closure monitoring and RI/FS sampling efforts detected contaminants such as chlorinated solvents, petroleum hydrocarbons, and metals in the groundwater at low levels. On Aug. 6, 1997, the ROD was signed, and institutional controls and LTM have been implemented. The remedy has achieved the required reduction in the risk by meeting the USEPA maximum contaminant levels (MCLs). A RACR was signed by the USEPA in February 2010 after VC, the last COC, dropped below regulatory levels. Ongoing LTM is required to document that contaminant levels remain below the MCLs.

The USEPA approved an explanation of significant differences (ESD) and site closure for the PSF in 2010. The site is now unlimited use/unrestricted exposure (UU/UE) and no further action (NFA) is required.

The DCFA has two sites with soil and groundwater contamination from dry cleaning operations using PCE. The PCE degradation products, trichloroethylene (TCE), dichloroethylene (DCE) and VC, are present in the groundwater. Dry cleaning occurred at Buildings 180/181 (demolished in 2000) and Building 183 (demolished in 2002). There is minimal contamination at the Building 183 location. The eastern groundwater plume originates at the former site of Building 180/181 with two hot spots: one east of the building centered on a sewer manhole and one at the southwest corner of the building. A utility trench appears to be the conduit for transporting PCE to the west, with the western groundwater plume centered on well DCF02-42. Both plumes move off the terrace into the alluvium and are not further degrading Kansas River water quality. The ROD has been signed and a RD/remedial action plan (RAP) has been approved. The alternative of monitored natural attenuation (MNA) with institutional controls is being implemented. The ROD required conducting annual groundwater sampling in fiscal year (FY)08, FY09, and FY10. By FY09, the groundwater bioremediation at the eastern plume showed signs of stalling out. In 2010 this groundwater was retreated and four quarterly sampling events were completed in 2011.

The USEPA approved a RACR and site closure for the former fire training area-MAAF in 2010. The original COCs were PCE and its degradation products. The site is now UU/UE and NFA is required.

The 354 area solvent detections site has contamination that was discovered during investigations of a POL/UST site. There are VOCs that include PCE, TCE, DCE and benzene. The ROD was signed in 2006 and the RD/RAP was approved. The site is in MNA with institutional control. No contaminants were above the MCLs in the alluvial aquifer of the Kansas River for the three years post-ROD. Contamination remains in place as groundwater is above the MCLs in the terrace aquifer.

At the OB/OD site, TCE is the current COC in the groundwater, soil, and surface water. The RI fieldwork was conducted in 2012 to be followed by four quarterly groundwater sampling events.

At the CFI site, arsenic is the current COC in the groundwater, soil, and surface water. The RI fieldwork was conducted in 2012 to be followed by four quarterly groundwater sampling events.

At the non-OU sites, pre-RCRA-I petroleum releases occurred at FTRI-056 abandoned gas line (AGL) and FTRI-057 6200 area fuel oil line (Anchor). Arsenic is the COC at the FTRI-001 Custer Hill sanitary landfill (CHLF).

IRP Contamination Assessment

Cleanup Exit Strategy

The principal objectives of the FTRI IRP are to protect human health and the environment while working toward the ultimate goal of delisting the installation from the NPL. There is the potential that some of the sites will not reach UU/UE but they will be monitored and under the installation's control. The installation's real property master plan will preclude their utilization for unacceptable land uses. In order to accomplish these objectives, the following efforts have been determined to be essential and must be achieved:

- Complete RI/FS, PP, and ROD for OB/OD and CFI.
- Conduct LTM for the OUs as described in the PPs, documented by the RODs, and determined to be required by the analysis of the data from the sampling events.
- Develop RACRs for those OUs that have attained the RA objectives defined in the PPs and RODs. Fort Riley will then request partial deletion of those sites.
- Perform the five-year review requirements as required under the CERCLA for all sites that have hazardous substances left in place that do not allow for UU and UE. Site closure will be requested when a site attains UU/UE.
- Conduct remediation efforts to include operations of the dual-phase extraction (DPE) systems to address fuels-related soil and groundwater contamination at FTRI-063 (1044), -066 (1245), and -068 POL (1637) sites. These three sites are located in Camp Funston, and are covered under FTRI-057 (anchor site). Once the soil and groundwater contaminants have reached concentrations that ensure no restrictions to a site's use, closeout approval will be sought.
- FTRI-056 AGL has undergone in situ treatment for fuels-related soil and groundwater contamination. Based on post-treatment monitoring additional remediation was conducted. Excavation of the contaminated soil, landfarming, and treatment of groundwater was performed in 2011. Once the soil and groundwater contaminants have reached concentrations that ensure no restrictions on the site's use, closeout approval will be sought.
- Develop the final RACR to begin the procedures for requesting delisting of the installation from the NPL.
- Well abandonment will occur at each site when groundwater monitoring is complete.

IRP Previous Studies

Year	Title	Author	Date
1993	Remedial Investigation for Remedial Investigation/Feasibility Study Pesticide Storage Facility	Law Environmental	DEC-1993
1994	Remedial Investigation Report for Southwest Funston Landfill	Law Environmental	APR-1994
	Feasibility Study Report for Remedial Investigation/Feasibility Study Southwest Funston Landfill	Law Environmental	APR-1994
	Proposed Plan Southwest Funston Landfill	Fort Riley	NOV-1994
1995	Remedial Investigation Addendum and Feasibility Study Report for Remedial Investigation/Feasibility Study Pesticide Storage Facility	Law Environmental	MAY-1995
	Pre-Design Work Plan Bioventing and Soil Vapor Extraction POL UST Investigation/Remedial Action Plans Fort Riley, Kansas (1245)	Dames & Moore	AUG-1995
	Pre-Design Activity Report - Former Building 1245 Bioventing and Soil Vapor Extraction POL UST Investigation/Remedial Action Plans Fort Riley, Kansas	Dames & Moore	NOV-1995
	Record of Decision Southwest Funston Landfill	Fort Riley	NOV-1995
	Final Groundwater Pre-Design Investigation Work Plan POL/UST Remedial Design Fort Riley, Kansas (Bldgs 218, 354, 388, 1044, 1245, 1539, 1637, 1890, 2345, 5320, 6232, 8340, AGL, POL Tank Farm)	HydroGeoLogic	DEC-1995
1996	Results of the Free Product Investigation Work Plan POL/UST Sites Fort Riley Military Reservation, Fort Riley, Kansas (388, 1044, 1637, 5320, Pond)	HydroGeoLogic	MAY-1996
1997	Final Site Investigation Report POL UST Sites 1044, 1245, and 1637 Fort Riley, Kansas	Dames & Moore	JUL-1997
	Proposed Plan Pesticide Storage Facility	Fort Riley	AUG-1997
	Remedial Investigation Addenda Pesticide Storage Facility	Law Environmental	AUG-1997
	Record of Decision Pesticide Storage Facility	Fort Riley	SEP-1997
2001	Remedial Investigation Report for Former Fire Training Area Marshall Army Airfield	Burns & McDonnell	MAR-2001
	Draft Project Report Field Investigation Former Incinerator Site Ft. Riley, Kansas	Arrowhead	APR-2001
2002	Five-Year Review Report	DPW Environmental Fort Riley, KS	AUG-2002
2003	Site-Specific Sampling and Analysis Plan Long Term Monitoring Fort Riley Southwest Funston Landfill	Environmental Chemical Corporation	JAN-2003
	Installation-Wide Site Investigation Derived Waste Management Plan for Environmental Investigations at Fort Riley, Kansas	Burns & McDonnell	APR-2003

IRP Previous Studies

Year	Title	Author	Date
2003	Feasibility Study FFTA-MAAF	Burns & McDonnell	SEP-2003
2004	Installation-Wide Sampling and Analysis Plan for Environmental Investigations at Fort Riley, Kansas	Burns & McDonnell	FEB-2004
	Remedial Investigation Addendum for the Dry Cleaning Facilities Area	Burns & McDonnell	APR-2004
	Draft Final Proposed Plan FFTA-MAAF	Burns & McDonnell	MAY-2004
	Abandoned Gas Line, Site Investigation Report AGL Terminus Area	McKinzie	SEP-2004
	Technical Memorandum for Open Burning/Open Detonation Ground Range 16 at Fort Riley, Kansas	Burns & McDonnell	OCT-2004
	354 Area Solvent Detection Site, Feasibility Study Report 354	Burns & McDonnell	DEC-2004
2005	KRBCA Checklists for POL/UST Sites 1044, 1245, & 1637 Fort Riley, Kansas	ECC/Burns & McDonnell	FEB-2005
	Feasibility Study Addendum for the Dry Cleaning Facilities Study Area	Burns & McDonnell	MAR-2005
	Site-Specific Field Sampling Plan for Groundwater, Spring, and Seep Sampling With Addendum - Spring 2005 for Open Burning/Open Detonation Ground (Range 16)	Burns & McDonnell	MAY-2005
	354 Area Solvent Detection Site, Soil-Gas Investigation Report 354 Area Solvent Detection	Burns & McDonnell	MAY-2005
	354 Area Solvent Detection Site, Proposed Plan 354 Area Solvent Detection	Burns & McDonnell	MAY-2005
	Pilot Study Report Pilot Study for Soil Remediation 354 Area Solvent Detections	Burns & McDonnell	JUN-2005
	Site Investigation Work Plans for the Petroleum, Oil, and Lubricant Sites 1044, 1245, & 1637 at Main Post Fort Riley, Kansas	ECC/Burns & McDonnell	JUN-2005
	Record of Decision Former Fire Training Area - Marshall Army Airfield	Burns & McDonnell	JUL-2005
	Draft Final EE/CA Report Non-Time Critical Removal Action Abandoned Gas Line/Terminus Fort Riley, Kansas	McKinzie	AUG-2005
	Community Involvement Plan Fort Riley Superfund Site Fort Riley, Kansas	DPW Environmental Fort Riley, KS	AUG-2005
	Action Memorandum Non-Time Critical Removal Action Abandoned Gas Line/Terminus Fort Riley, Kansas	McKinzie	DEC-2005
	2006	Remedial Design/Remedial Action Plan Former Fire Training Area - Marshall Army Airfield	Burns & McDonnell
Former Fire Training Area-Marshall Army Airfield, Draft Final Remedial Design/Remedial Action Plan		Burns & McDonnell	JAN-2006
Work Plan Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas		Burns & McDonnell	MAY-2006
Record of Decision 354 Area Solvent Detections		Burns & McDonnell	JUN-2006
Work Plan Removal Action AGL Terminus Area Marshall Army Airfield Fort Riley Kansas		McKinzie	JUN-2006
Site Specific Sampling Plans for Groundwater Monitoring Activities Building 354		EA Engineering	AUG-2006

IRP Previous Studies

2006

Title	Author	Date
Site Specific Sampling Plans for Groundwater Monitoring Activities Dry Cleaning Facility Area	EA Engineering	AUG-2006
Site Specific Sampling Plans for Groundwater Monitoring Activities Former Fire Training Area-Marshall Airfield	EA Engineering	AUG-2006
Quality Control Summary Report June 2006 Sampling Event Pesticide Storage Facility	Corps of Engineers - Kansas City District	AUG-2006
Work Plan Pilot Study for Soil and Groundwater Remediation DCF Study Area	Burns & McDonnell	SEP-2006
Quality Control Summary Reports Summer 2006 Sampling Events for the Expanded Site Investigation (Multi-Sites) at Fort Riley, Kansas	Burns & McDonnell	SEP-2006
2007 Feasibility Study Addendum for the Dry Cleaning Facilities Study Area	Burns & McDonnell	OCT-2006
Work Plan Camp Funston Incinerator Fort Riley, Kansas	Corps of Engineers - Kansas City District	NOV-2006
Magnetometer Anomaly Investigation Work Plan for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Fort Riley, Kansas	ECC/Burns & McDonnell	NOV-2006

2007

Quality Control Summary Report December 2006 Sampling Event Camp Funston Incinerator Fort Riley, Kansas	Corps of Engineers - Kansas City District	FEB-2007
Draft Final Remedial Design/Remedial Action Plan 354 Area Solvent Detections	Burns & McDonnell	MAR-2007
Report for Sampling at Camp Funston Incinerator December 2006	Corps of Engineers - Kansas City District	MAR-2007
Magnetometer Anomaly Investigation Report for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Fort Riley, Kansas	ECC/Burns & McDonnell	MAR-2007
Quality Control Summary Report for April 2007 Groundwater Sampling Event 354 Site	EA Engineering	MAY-2007
Design Addendum Investigation Work Plan for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Fort Riley, Kansas	ECC/Burns & McDonnell	MAY-2007
Quality Control Summary Report March 2007 Sampling Event Former Fire Training Area - Marshall Army Airfield	EA Engineering	MAY-2007
Quality Control Summary Report March 2007 Sampling Event Southwest Funston Landfill	Environmental Chemical Corporation	MAY-2007
Quality Control Summary Report for the April 2007 Groundwater Sampling Event at the Dry Cleaning Facilities Area	EA Engineering	JUN-2007
2007 Annual Sampling Report 354 Solvent Detections Site	EA Engineering	JUL-2007
2007 Annual Sampling Report Dry Cleaning Facilities Area	EA Engineering	JUL-2007
2007 Annual Sampling Report FFTA-MAAF	EA Engineering	JUL-2007
Real Property Master Plan Digest (Institutional Controls)	Black & Veatch	AUG-2007
Quality Control Summary Report Air Site Investigation for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 Pilot Study Camp Funston Fort Riley, Kansas	ECC/Burns & McDonnell	SEP-2007
Long Term Monitoring Report 2007 Southwest Funston	Environmental Chemical	SEP-2007

IRP Previous Studies

2007

Title	Author	Date
Landfill	Corporation	
Second Five-Year Review Report Fort Riley, Kansas	Corps of Engineers - Kansas City District	SEP-2007
Quality Control Summary Report August 2007 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16)	Burns & McDonnell	OCT-2007
Proposed Plan for the Dry Cleaning Facilities Area	Burns & McDonnell	OCT-2007
Quality Control Summary Report for the September 2007 Groundwater Sampling Event at the Dry Cleaning Facilities Area (Pilot Study)	Burns & McDonnell	OCT-2007
2007 Annual Inspection Report Southwest Funston Landfill	Corps of Engineers - Kansas City District	OCT-2007
Reports for Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell	OCT-2007
Quality Control Summary Report Air Sample Data for the POL Sites 1044, 1245, and 1637 Pilot Study Camp Funston Fort Riley, Kansas	ECC/Burns & McDonnell	NOV-2007

2008

Pilot Study Report for the Dry Cleaning Facilities Area	Burns & McDonnell	JAN-2008
Record of Decision Dry Cleaning Facilities Area	Burns & McDonnell	JAN-2008
Site Specific Plans for Groundwater Monitoring Activities Southwest Funston Landfill Fort Riley, Kansas	CTI	MAR-2008
Quality Control Summary Report for February 2008 Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	APR-2008
Quality Control Summary Report for March 2008 Sampling Event 354 Area Solvent Detections Site Fort Riley, Kansas	EA Engineering	MAY-2008
Quality Control Summary Report for Groundwater Monitoring Activities Southwest Funston Landfill Fort Riley, Kansas	CTI	MAY-2008
Draft Final Work Plan Addendum Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	MAY-2008
Engineering Design Report for the Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 at Camp Funston Volumes I & 2 Fort Riley, Kansas	ECC/Burns & McDonnell	JUN-2008
Quality Control Summary Report for April 2008 Sampling Event at the Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	JUN-2008
2008 Annual Sampling Report Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	JUN-2008
Remedial Design/Remedial Action Plan Dry Cleaning Facilities Area (Operable Unit 003) at Main Post Fort Riley, Kansas	Burns & McDonnell	JUN-2008
Removal Action Final Report - Volumes I & 2 AGL Terminus Area Marshall Army Air Field Fort Riley, Kansas	McKinzie	JUL-2008
Final 2008 Annual Groundwater Sampling Report Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	JUL-2008
Long Term Monitoring Report Southwest Funston Landfill Fort Riley, Kansas 2008	CTI	JUL-2008

IRP Previous Studies

2008

Title	Author	Date
Quality Control Summary Report July 2008 Sampling Event Custer Hill Landfill Fort Riley, Kansas	Environmental Chemical Corporation	AUG-2008
Quality Control Summary Report July 2008 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	SEP-2008
Quality Control Summary Report Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	SEP-2008
2008 Maintenance and Repair Report and Annual Inspection Report Southwest Funston Landfill Operable Unit 001 Fort Riley, Kansas	Corps of Engineers - Kansas City District	OCT-2008
Draft Final Report Addendum Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	DEC-2008
Draft Final Building 1693 Report Expanded Site Investigation (Multiple Sites) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	DEC-2008

2009

Quality Control Summary Report for March 2009 Sampling Event 354 Area Solvent Detections Site Fort Riley, Kansas	EA Engineering	APR-2009
Quality Control Summary Report for February 2009 Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	APR-2009
Quality Control Plan Final POL/UST Contaminated (Prior to 1984) Sites Remediation Services at Fort Riley, Kansas (1044, 1245, 1637)	Conti/CH2MHill	MAY-2009
Project Management Plan Final POL/UST Contaminated (Prior to 1984) Sites Remediation Services at Fort Riley, Kansas (1044, 1245, 1637)	Conti/CH2MHill	MAY-2009
Quality Control Summary Report for April 2009 Sampling Event at the Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	MAY-2009
Quality Control Summary Report for Groundwater Monitoring Activities Southwest Funston Landfill Fort Riley, Kansas	CTI	JUN-2009
Quality Control Summary Report for Groundwater Monitoring Activities Abandoned Gasoline Site Fort Riley, Kansas	CTI	JUN-2009
2009 Annual Sampling Report Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	JUN-2009
2009 Annual Sampling Report 354 Solvent Detections Site Fort Riley, Kansas	EA Engineering	JUN-2009
2009 Maintenance and Repair Report and Annual Inspection Report Southwest Funston Landfill Fort Riley, Kansas	Corps of Engineers - Kansas City District	JUN-2009
Final 2009 Annual Groundwater Sampling Report Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	JUL-2009
Quality Control Summary Report 2009 Groundwater Resampling Event Southwest Funston Landfill Fort Riley, Kansas	CTI	AUG-2009
Quality Control Summary Report for June 2009 Supplemental Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	AUG-2009
Design Implementation Work Plan for Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 Fort Riley, Kansas	Conti/CH2MHill	SEP-2009

IRP Previous Studies

2009	Title	Author	Date
	Quality Control Summary Report August 2009 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	NOV-2009
	Quality Control Summary Report for September 2009 Supplemental Sampling Event Former Fire Training Area - Marshall Army Airfield Fort Riley, Kansas	EA Engineering	NOV-2009
	Long Term Monitoring Report Southwest Funston Landfill Fort Riley, Kansas 2009	CTI	NOV-2009
	Draft Final Remedial Action Completion Report Southwest Funston Landfill Site, OU001 Fort Riley, Kansas December 2009	DPW Environmental Fort Riley, KS	DEC-2009
2010			
	Technical Memorandum Pre-Excavation Soil Sampling Event NW Camp Funston WWI Incinerator Fort Riley, Kansas	CTI	MAR-2010
	Quality Control Summary Report Soil and Groundwater Investigation Abandoned Gas Line Site (AGL) Fort Riley, Kansas	CTI	APR-2010
	Technical Memorandum Soil and Groundwater Investigation Abandoned Gas Line (AGL) Site Fort Riley, Kansas	CTI	APR-2010
	Explanation of Significant Difference Pesticide Storage Facility Fort Riley, Kansas	DPW Environmental Fort Riley, KS	APR-2010
	Operations and Maintenance Manual Remediation of Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 Fort Riley, Kansas	Conti/CH2MHill	MAY-2010
	2010 Maintenance and Repair Report and Annual Inspection Report Southwest Funston Landfill Fort Riley, Kansas	Corps of Engineers - Kansas City District	JUN-2010
	Draft Final Remedial Action Completion Report Former Fire Training Area (Operable Unit 004) at - Marshall Army Airfield Fort Riley, Kansas	Louis Berger/ Burns & McDonnell	AUG-2010
	Construction Completion Report Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 Fort Riley, Kansas Volumes 1 and 2	Conti/CH2MHill	AUG-2010
	Quality Control Summary Report for June 2010 Sampling Event Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	AUG-2010
	Quality Control Summary Report August 2010 Groundwater Sampling Event at the Open Burning/Open Detonation (Range 16) at Fort Riley, Kansas	Burns & McDonnell /Malcolm Pirnie	SEP-2010
	Camp Funston WWI Incinerator (CFI) Remediation 4 Ft. Riley, KS	CTI	OCT-2010
	Final 2010 Annual Groundwater Sampling Report Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	OCT-2010
	Quality Control Summary Report for September 2010 Supplemental Sampling Event Dry Cleaning Facilities Area Fort Riley, Kansas	EA Engineering	NOV-2010
	Quality Control Summary Report May 2010 Sample Event Post Closure Groundwater Monitoring Custer Hill Landfill Fort Riley, Kansas	CTI	DEC-2010
	Quality Control Summary Report October 2010 Confirmation Sample Event Post Closure Groundwater	CTI	DEC-2010

IRP Previous Studies

2010

Title	Author	Date
Monitoring Custer Hill Landfill Fort Riley, Kansas		

2011

Final Project Management Plan Quality Assurance Surveillance Plan Environmental Remediation Services Abandoned Gasoline Line	Cape	FEB-2011
Draft Final Long Term Management and Care Plan Southwest Funston Landfill Site, OU001 Fort Riley, Kansas	DPW Environmental Fort Riley, KS	MAR-2011
2011 Maintenance and Repair Report and Annual Inspection Report for Southwest Funston Landfill Fort Riley, Kansas	Corps of Engineers - Kansas City District	JUN-2011
Final Work Plan Environmental Remediation Services Abandoned Gasoline Line Terminus Area Fort Riley, Kansas	Cape	JUL-2011
Final Technical Memorandum Part I: Technical Memorandum: EE/CA Addendum Part II: Action Memorandum Addendum Environmental Remediation Services Abandoned Gasoline Line Terminus Area Fort Riley, Kansas	Cape	JUL-2011
Final Exit Strategy Plan Environmental Remediation Services Abandoned Gasoline Line Terminus Area Fort Riley, Kansas	Cape	JUL-2011
Final Site-Specific Site Safety and Health Plan for RI/FS Environmental Investigations for the Open Burning-Open Detonation Grounds (Range 16) at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	SEP-2011
Final Site-Specific Investigation Derived Waste Management Plan for RI/FS Environmental Investigations for the Open Burning-Open Detonation Grounds (Range 16) at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	SEP-2011
Quality Control Summary Report August 2011 Sample Event Post Closure Groundwater Monitoring Custer Hill Landfill Fort Riley, Kansas	CTI	OCT-2011
Quality Control Summary Report 354 Area Solvent Detections August 2011 Groundwater Sample Event Fort Riley, Kansas	CTI	OCT-2011
Final Groundwater Sampling Report - August 2011 354 Area Solvent Detections Fort Riley, Kansas	CTI	NOV-2011
Final Remedial Investigation/Feasibility Study Work Plan for the Open Burning/Open Detonation Ground (Range 16) Operable Unit 006 at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	NOV-2011
Final Munitions and Explosives of Concern Avoidance Plan Remedial Investigation/Feasibility Study and Related Activities Open Burning-Open Detonation Grounds (OB/OD) (Range 16) - Operable Unit 006 Fort Riley, Kansas	Louis Berger and ARCADIS/Malcolm Pirnie	NOV-2011
Quality Control Summary Report Long-Term Groundwater Monitoring October 2011 Groundwater Sampling Event Southwest Funston Landfill Fort Riley, Kansas	CTI	DEC-2011
Quality Control Summary Report August and October 2011 Groundwater Sampling Events Dry Cleaning Facilities Area - OU003 Fort Riley, Kansas	CTI	DEC-2011

IRP Previous Studies

2011	Title	Author	Date
	Final Installation-Wide Sampling and Analysis Plan (Including UFP-Quality Assurance Project Plan) for the Fort Riley CERCLA Process Support at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	DEC-2011
	Draft Final 2010 Remedial Action (Operations) Report Petroleum, Oil, and Lubricant Sites 1044, 1245, and 1637 Fort Riley, Kansas	Conti/CH2MHill	DEC-2011
	Quality Control Summary Report Long-Term Groundwater Monitoring October 2011 Groundwater Sampling Event Southwest Funston Landfill Fort Riley, Kansas	CTI	DEC-2011
	Draft Final Site-Specific Investigative-Derived Waste Management Plan for RI/FS Environmental Investigations for the WWI Incinerator, NW Camp Funston (CFI) - Operable Unit 007 at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	DEC-2011
2012			
	Final Addendum No. 1 to Installation-Wide Accident Prevention Plan (APP) for Open Burning-Open Detonation Grounds (Range 16) Environmental Investigations at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	JAN-2012
	Quality Control Summary Report Open Burning-Open Detonation Grounds (Range 16) Operable Unit 006 at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	JAN-2012
	Final Installation-Wide Accident Prevention Plan For Environmental Investigations at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	JAN-2012
	Draft Final Addendum No. 2 to Installation-Wide Accident Prevention Plan for the WWI Incinerator, NW Camp Funston (CFI) - Operable Unit 007 at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	JAN-2012
	2011 Annual Groundwater Sampling Report Dry Cleaning Facilities Area OU-003 Fort Riley, Kansas	CTI	FEB-2012
	Long Term Monitoring Report Southwest Funston Landfill Fort Riley, Kansas 2011	CTI	FEB-2012
	Quality Control Summary Report Remedial Investigation/Feasibility Study Phase One Sediment and Soil Sampling at the Open Burning/Open Detonation Grounds (Range 16) Operable Unit 006 at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	FEB-2012

FORT RILEY
Installation Restoration Program
Site Descriptions

Site ID: FTRI-001

Site Name: CUSTER HILL SANITARY LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE:

Contaminants of Concern: Metals

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198706.....	198909
CS.....	198706.....	198909
RFI/CMS.....	198909.....	199307
DES.....	199308.....	199311
CMI(C).....	199312.....	199502
CMI(O).....	199503.....	202503
RIP Date:	199503	
RC Date:	202503	

SITE DESCRIPTION

The CHSL operated from 1981 to 1994. The KDHE issued a consent order in 1996 to provide for post-closure care to include landfill cover maintenance and groundwater monitoring for 30 years. The post-closure monitoring plan was revised in January 2006. Site progress was tracked under the environmental program requirements (EPR) process from October 1993 to March 2005 and by CC-FTRI-08 from April 2005 to September 2009. The site has been shifted from Army Environmental Database-Compliance-related Cleanup (AEDB-CC) to the Compliance Restoration (CR) program.

Arsenic is currently detected above regulatory groundwater levels in two wells. No completed pathways or ecological impacts are known. Groundwater is not a drinking water resource. Latest cover repair was conducted in 2008.

A five-year groundwater sampling was conducted in 2010. A new detect of arsenic above MCLs in CH91-7 triggered annual sampling. Annual sampling will be limited to four wells for arsenic only.

Invasive weed control, spot repairs and reseeding are conducted annually. Prescribed burns or mowing are conducted annually to provide for cover inspection and to enhance the native grass cover.

CLEANUP/EXIT STRATEGY

The post-closure monitoring plan requires site-wide groundwater sampling in 2015, 2020, and 2025, otherwise, limited annual groundwater sampling must be conducted.

Pending the outcome of the 2012 landfill inspection, landfill cover repair is scheduled for 2013. Additional landfill cover repair is scheduled for 2018, and 2023.

Well abandonment will occur when all groundwater monitoring is completed.

The regulatory required post-closure monitoring ends in 2025.

Site Name: SOUTHWEST FUNSTON LANDFILL

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
Contaminants of Concern: Volatiles (VOC)
Media of Concern: Groundwater

Table with 3 columns: Phases, Start, End. Rows include PA, SI, RI/FS, RD, IRA, RA(C), RA(O), LTM, RIP Date, and RC Date.

SITE DESCRIPTION

The SFL is a closed municipal landfill of approximately 120 acres located in the southern portion of FTRI. The landfill operated from the mid-1950s until 1981. The landfill closure was approved by the KDHE in a letter dated Oct. 25, 1983.

In 1993 an Engineering Evaluation/Cost Analysis (EE/CA) was performed. The proposed response action was executed between 1994 and 1997 in three construction projects to address the immediate risks at the landfill.

Groundwater monitoring results since 1997 provide clear evidence of a decreasing trend in the COCs. In 2010 and 2011, all detected contaminants were below their MCLs.

The five-year review reports in 2002 and 2007 did not reveal any threats to human health and the environment. The results of the five-year review conducted in 2012 were not available yet.

The RACR was signed by the USEPA in February 2010. The landfill was determined to be functionally stable and to have reached the "site completion" milestone under CERCLA.

An operation and maintenance (O&M)/long-term management (LTM) plan to implement the LTM of the site activities presented in the RACR was completed in April 2011.

CLEANUP/EXIT STRATEGY

Pending the outcome of the 2012 landfill inspection, landfill cover repair is scheduled for 2013.

The next groundwater sampling and five-year review is planned for 2017.

The O&M/LTM plan involves controlled site access and land use institutional controls; annual inspections; prescribed burns of vegetative cover; as needed repairs of the landfill vegetative soil cover and bank stabilization structure; and groundwater monitoring for the five-year review.

Site ID: FTRI-003
Site Name: SOUTHWEST FUNSTON LANDFILL

Well abandonment will occur when all groundwater monitoring is completed.

Site ID: FTRI-009
Site Name: OB/OD GROUND (RANGE 16)

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Metals, Perchlorate, Volatiles (VOC)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA.....	198312.....	198412
SI.....	199111.....	199809
RI/FS.....	199303.....	201406
RD.....	201407.....	201407
RA(C).....	201408.....	201410
RA(O).....	201411.....	201709
LTM.....	201710.....	202609
RIP Date:	201411	
RC Date:	201709	

SITE DESCRIPTION

The OB/OD ground (Range 16) is used for emergency ordnance disposal and training (no public access is permitted). There is a suspicion that TCE was utilized as a limited attempt to serve as an accelerant based on its presence in the groundwater at the site, but not as a normal practice. The normal practice was to use kerosene or diesel as the accelerant to burn the gun powder. In 1993, TCE was detected in the groundwater.

Perchlorate was found in 2004. The 2008 groundwater sampling event had perchlorate levels at 7.0 micrograms per liter (ug/L) or less. The proposed interim standard is set at 15 ug/L; therefore, the sampling for perchlorate was discontinued.

Due to the continued presence of TCE in the groundwater and the complex site hydrogeology, the site has been placed in the RI/FS phase.

A sampling event was conducted in 2010.

The site was addressed in the 2002 and 2007 five-year review reports.

RI fieldwork began in January 2012 based on the December 2011 work plan.

CLEANUP/EXIT STRATEGY

Conduct four quarterly groundwater sampling events and develop a risk assessment for the RI Report.

Site Name: DRY CLEANING FACILITIES AREA

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
Contaminants of Concern: Volatiles (VOC)
Media of Concern: Groundwater, Soil

Table with 3 columns: Phases, Start, End. Rows include PA, SI, RI/FS, RD, IRA, RA(C), RA(O), LTM with corresponding start and end dates.

SITE DESCRIPTION

The former DCFA is located in the southwest corner of the main post cantonment area, about 800 feet north of the Kansas River. The DCFA operated until 2002. The primary dry cleaning solvent was PCE. Chlorinated solvent contamination above regulatory standards was found in soil and groundwater.

The RI baseline risk assessment indicates minimal risk associated with the site under current and anticipated land use; however, the PCE-contaminated groundwater had degraded the Kansas River alluvial aquifer.

In 2006, a successful pilot study that addressed soil contamination using excavation and land farming was conducted. It also addressed groundwater contamination through enhanced bioremediation and chemical oxidation.

In March 2008, the ROD was approved and had MNA with institutional controls as the selected remedy. The RD was completed in June 2008. The 2010 annual sampling event concluded the pilot study evaluation.

An additional bioremediation injection of the eastern groundwater plume was completed in 2010 followed by four quarterly sampling events. The final two quarterly sampling events occurred in 2011.

This site was addressed in the five-year review reports completed in August 2002 and 2007.

CLEANUP/EXIT STRATEGY

In 2012 as part of the ongoing five-year review, the western plume will be evaluated for further groundwater treatment. Since the western plume is under the alluvium, PCE contaminant levels need to drop from the current 20 parts per billion (ppb) to below the MCL of five ppb before proceeding with a RACR.

Groundwater sampling is scheduled for 2013, 2014, and 2016. A five-year review is planned for 2017.

Well abandonment will occur when all groundwater monitoring is completed.

Site Name: 354 AREA SOLVENT DETECTIONS (354)

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
PA.....	199111.....	199305
SI.....	199312.....	199507
RI/FS.....	199609.....	200608
RD.....	200608.....	200703
RA(C).....	200703.....	200703
RA(O).....	200704.....	201709
LTM.....	201710.....	201806

RIP Date: 200704

RC Date: 201709

SITE DESCRIPTION

Fuel and solvent storage/dispensing occurred near former building 354 in the public works yard. The USTs were used to store fuel and removed in 1990 and 1991. There are no records to determine if solvents were stored in drums, USTs, or aboveground storage tanks (ASTs). The PCE, its degradation products, carbon tetrachloride, and fuel-related hydrocarbons are present. The site extends from just north of building 430 (the Main Post fire station) to the "point bar" on the north bank of the Kansas River. At building 430, the only contaminant is carbon tetrachloride below the MCL.

FTRI-061 - the former building 354 is part of this site effort.

Currently, PCE is the only contaminant above the MCL in groundwater samples in three terrace wells. They do not pose a risk and do not present an impact to the Kansas River alluvial aquifer. One well in the transition zone has benzene at 7.9 ug/L.

The ROD was signed in 2006 and the site remedy is MNA with institutional controls. The RD was completed in March 2007.

The results of the 2009 sampling event showed no COC above the MCLs in the alluvial aquifer of the Kansas River. Per the ROD, it was specified that if three years of post-ROD sampling were below the MCLs in the alluvial aquifer of the Kansas River, the course of action would be to make a recommendation to discontinue sampling and close out the site. Three terrace wells remain above the MCL for PCE.

Limited groundwater sampling in four wells was conducted in 2011 and 2012.

This site was addressed in the site-wide five-year review reports completed in 2002, 2007, and 2012.

CLEANUP/EXIT STRATEGY

Groundwater sampling and a five-year review are planned for 2017. They will be the basis for a decision with regard to FY17 actions.

Fort Riley will work with regulators to reach an agreement on a RACR.

Well abandonment will occur when all groundwater monitoring is completed.

Site Name: ABANDONED GASOLINE LINE

STATUS

Regulatory Driver: RCRA

RRSE: LOW

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199111.....	199409
INV.....	199408.....	199603
CAP.....	199803.....	201107
DES.....	201103.....	201108
IRA.....	200609.....	200909
IMP(C).....	201103.....	201110
IMP(O).....	201110.....	201809

RIP Date: 201110

RC Date: 201809

SITE DESCRIPTION

The USTs and a 1.1 mile steel pipeline that make up the AGL were installed in 1937 to transfer aviation gasoline from the railroad siding at the Main Post to the MAAF. The AGL terminus area associated with the pipeline is located between Buildings 754 and 748B at the airfield. In 1951, the pipeline was removed from service after a portion of the line was destroyed during the flooding of the Kansas River. In 1987, the USTs, where diesel and aviation gasoline were stored, were removed. An investigation of the abandoned pipeline in 1998 showed that it had been cut in several places at the terminus area during installation of utilities. Thus far, the investigation and cleanup process outlined in CERCLA is followed for this site since FTIRI is an NPL site (1990) and most of the releases occurred pre-1984 HSWA (RCRA-I). The regulatory agency, the KDHE, has broad authority to accept the CERCLA process to achieve cleanup goals for a site contaminated with petroleum-related hazardous constituents, in spite of the CERCLA petroleum exclusion.

A preliminary assessment (PA) investigation was performed at the former terminus area in 1993 that showed possible benzene contamination. A site inspection (SI) field investigation in 2001 revealed soil and groundwater contamination related to the former USTs exceeding risk-based standards. The hazardous substance, 1,2-DCA, and petroleum-related constituents were detected. Sampling along the pipeline did not reveal any contamination. Further assessment of the site occurred in August 2004. The soil and groundwater results revealed concentrations of benzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene well above risk-based standards.

An EE/CA and action memorandum to document the selection of the removal alternative was approved in February 2006. The remedial response was initiated in August 2006 and involved the injection of a chemical oxidant and an oxygen source in the contaminated zones. The fieldwork was performed in October to November 2006 and July to August 2007. Post-treatment groundwater monitoring to analyze the effectiveness was performed in 2007, 2008, and 2009. An RI-like investigation to evaluate the extent of the remaining mass of contaminants in the soil and groundwater was completed in February 2010. Proposals were then solicited from remediation contractors to address this contamination. A contract for environmental remediation services was awarded in September 2010.

Addenda to the original EE/CA and action memorandum to document the additional response action were made and public noticed in the spring of 2011. This decision document (DD) was approved by June 2011. This response action is expected to be the final action for the AGL site. The response activities include excavation and land farming of the contaminated soil, two injections of an oxygen source to treat the contaminated groundwater, followed by performance sampling, then MNA until the cleanup goals are met for site closeout. The construction activities RA(C) began in mid-August and continued through October 2011. The remedy-in-place (RIP) was achieved on Oct. 28, 2011 to be followed by remedial action (operation) [RA(O)].

CLEANUP/EXIT STRATEGY

Site ID: FTRI-056

Site Name: ABANDONED GASOLINE LINE

Conduct RA(O) that includes groundwater monitoring, systems maintenance, and soil sampling at the landfarm area for two years, followed by MNA of groundwater for five years.

The RA(O) is expected to end in September 2018 with site-closeout approval by the KDHE.

The LTM will start in approximately October 2018 and end in October 2021 when the monitoring wells are plugged and abandoned.

Site ID: FTRI-057

Site Name: 6200 AREA FUEL OIL LINE (ANCHOR)

STATUS

Regulatory Driver: RCRA

RRSE: LOW

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199010.....	199012
INV.....	199312.....	199502
CAP.....	199606.....	200806
DES.....	200806.....	200901
IRA.....	199601.....	200505
IMP(C).....	200902.....	201002
IMP(O).....	201003.....	201803
LTM.....	201804.....	201812

RIP Date: 201003

RC Date: 201803

SITE DESCRIPTION

Site FTRI-057 is the open site being used as the anchor for the POL sites in Camp Funston [FTRI-063 (1044), FTRI-066 (1245), and FTRI-068 (1637)]. The sites are former fuel dispensing stations, where steel USTs (17 total) were installed in 1942 during WWII and the leaking USTs were removed in 1990. Thus far, the investigation and cleanup process outlined in CERCLA has been followed since FTRI is a NPL site (August 1990) and most of the releases occurred pre-1984 HSWA (RCRA-I). The regulatory agency, the KDHE, has broad authority to accept the CERCLA process to achieve cleanup goals for a site contaminated with petroleum-related hazardous constituents, in spite of the CERCLA petroleum exclusion.

A PA was performed in November 1992 to January 1993. An SI was performed from 1994 - 1995 indicating extensive soil and groundwater contamination. Free-product recovery occurred in 1995. The RA plans for the sites were generated in 1997. Intrinsic remediation with groundwater monitoring followed by an evaluation of the effectiveness of the intrinsic remediation in five years was selected as the interim remedial action (IRA) in 1997. Groundwater monitoring was performed until 2006. The monitoring results indicated elevated concentrations of contaminants in the groundwater above risk-based standards and the presence of free-product.

From April 2006 to October 2007, an investigation was performed to determine the extent of contamination. The study included a magnetometer survey, installation of free phase hydrocarbon borings, well installations, sampling, and soil vapor extraction (SVE)/DPE pilot studies. The results revealed that the sites could not reach the site-closeout milestone without active remediation. An FS-like review that included a RD discussion of several alternatives and selection of a remedy was performed in December 2007-January 2008. An engineering design report was completed in June 2008. A remediation contract was awarded in February 2009 and the design implementation work plan was completed in September 2009. The fieldwork for construction of the DPE systems began in September 2009 and was completed in February 2010. The startup operation of the systems began in March 2010 achieving RIP.

In a letter dated June 14, 2010, RIP was approved by the regulator (KDHE). The construction completion report was finalized in July 2010. Ongoing RA(O) activities with maintenance and monitoring began in March 2010 and will continue until 2018. The DPE systems will be shut down when cleanup levels are met or they are no longer effective. Cleanup may then continue under MNA or another technology, if needed, to reach closure.

CLEANUP/EXIT STRATEGY

Conduct RA(O) until March 2018 (systems maintenance and groundwater monitoring followed by MNA).

An LTM/well abandonment (April 2018 to July 2018) will occur when all groundwater monitoring is complete and the sites are

Site ID: FTRI-057
Site Name: 6200 AREA FUEL OIL LINE (ANCHOR)

considered closed by the KDHE.

Site Name: WWI INCINERATOR, NW CAMP FUNSTON

STATUS

Regulatory Driver: CERCLA
RRSE: LOW
Contaminants of Concern: Metals
Media of Concern: Soil

Table with 3 columns: Phases, Start, End. Rows include PA, SI, RI/FS, RD, IRA, RA(C), RA(O), RIP Date, and RC Date.

SITE DESCRIPTION

The Northwest Camp Funston WWI incinerator site was discovered as part of a 2000 effort evaluating potential wastewater plant locations.

In 2001, X-ray fluorescence (XRF) and lab confirmation sampling identified elevated levels of lead and arsenic soil contamination. Three of 17 lab samples had arsenic concentrations above the KDHE risk-based standards for Kansas (RSK) residential soil standards (11 milligrams per kilogram (mg/kg)) while two of 17 lab samples had lead concentrations above the KDHE RSK residential soil standards (400 mg/kg).

In 2006, as part of the expanded site investigation effort to obtain site closures, a more extensive soil sampling effort was conducted. Thirty-six locations consisting of three soil horizons in the top two feet of soil were sampled. This effort showed a higher level of contamination and a more extensive area of contamination than the 2001 sampling event.

In 2010 FTRI decided to construct a rail spur that would cover a portion of the incinerator site, which required an emergency removal. Concurrently, the KDHE promulgated a new definition of uncontaminated soil that required disposal of the arsenic/lead contaminated soil as special waste.

Due to the increased complexity, the site has been placed in the RI/FS phase.

CLEANUP/EXIT STRATEGY

The RI fieldwork will begin in 2012 based on the December 2011 work plan.

Conduct four quarterly groundwater sampling events and develop a risk assessment for the RI report.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-002	WHITSIDE C/D LANDFILL-CLOSED	199803	Landfill closed and inspected by the KDHE in 2002. This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-004	MAIN POST LANDFILL	199712	This site was investigated under the FTRI-031 354 Area Solvent Detection site and is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-005	CUSTER HILL ROAD RUBBLE DUMP	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-006	DRMO STORAGE AREA	199809	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-007	PCB STORAGE BUILDING 343	198909	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-008	PCB STORAGE CONEX (BUILDING 348)	199012	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-010	PESTICIDE (2-4D) UST AT CAMP FUNSTON	199204	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-011	CAMP FUNSTON GW DETECTIONS	200501	Received regulatory closure from the KDHE on 11/9/07 & the EPA, Region VII on 11/26/07.
FTRI-012	WASTE STORAGE DRMO SECONDARY AREA	199509	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-013	ABANDONED VOC TANKS NORTH OF IACH	199202	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-014	HOSPITAL INCINERATOR-IRWIN ACH	198909	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-015	FORMER DRMO LOCATION (DRMO AREA 2)	199509	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-016	WASTE OIL AST-3RD BATTERY	198909	This site is part of the overall effort to address improperly closed out sites.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-017	WASTE OIL AST-4TH BATTERY	198909	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-018	FIRE TRAINING AREA FACILITY (892)	198909	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-019	FORMER FIRE TRAINING AREA FFTA-MAAF	201209	
FTRI-020	INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL)	199803	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-022	FORMER WWTP & SLUDGE BEDS (ANCHOR)	200705	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-023	CUSTER HILL WWTP AND SLUDGE BEDS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-024	FORSYTH WWTP AND SLUDGE BEDS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-025	MAIN POST WWTP AND SLUDGE BEDS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-026	RANGE COMPLEX WW LAGOONS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-028	FMR FIRE TRAINING AREA CAMP FUNSTON	199402	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-029	OLD INCINERATOR SITE SE-CAMP FUNSTON	200308	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-030	PESTICIDE STORAGE FACILITY (MIXING)	201005	The site was closed with regulator approval of an April 2010 Explanation of Significant Differences.
FTRI-032	IMPACT ZONE	199309	This site is an active range and therefore ineligible for ER,A funding.
FTRI-033	DOUTHIT RANGE	199305	This site is an active range and therefore ineligible for ER,A funding.
FTRI-034	IMPACT AREA PERIMETER SMALL ARM RANGES	199612	This site is an active range and therefore ineligible for ER,A funding.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-035	NON-IMPACT AREA SMALL ARMS RANGES	200007	This site is an active range and therefore ineligible for ER,A funding.
FTRI-036	SOUTHEAST FUNSTON LANDFILL (ANCHOR)	200901	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-037	OLD WHITSIDE INCINERATOR AREA	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-038	FORSYTH LANDFILL(S)	200708	Received regulatory closure from the EPA, Region VII & the KDHE for IRP in August 2007.
FTRI-039	CONSOLIDATED MAINTENANCE FACILITY	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-040	FORMER OIL TESTING LAB (ANCHOR)	200711	Received regulatory closure from the EPA, Region VII & the KDHE in November 2007.
FTRI-041	FURNITURE REPAIR SHOPS (3)	199507	This site is part of the overall effort to address improperly closed out sites. Two of the three sites received regulatory closure from the EPA, Region VII & the KDHE in 2007. One site (bldg 1605) required additional sampling in FY08 and received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-042	TAC VEHICLE MAINTENANCE SHOPS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-043	FORMER GAS STATIONS/GARAGES	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the KDHE in 2008 and the EPA, Region VII in 2009, except one site at Forsyth I Street that was sampled in FY08.
FTRI-044	FORMER ASPHALT PLANT (NEAR BLDG 354)	199509	This site was addressed in the 354 Area Solvent Detections RI/FS/PP and will fall under the ROD developed for FTRI-031.
FTRI-045	PHOTO AND PRINT PLANTS	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-046	FRMR DS/GS Bldg 1693 Adj Areas	199507	This site is part of the overall effort to address improperly closed out sites. It was included under the sampling event in FY08.
FTRI-047	FORMER LIVESTOCK DIPPING FACILITY	200711	Received regulatory closure from the EPA, Region VII & the KDHE in November 2007.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-048	FORMER PESTICIDES FACILITIES	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-049	MERCURY CONTAMINATION AREAS	199305	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-050	PCB SPILL AREAS /TRANSFORMER SITES	199803	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-051	BLDG. 727 WASTE PIT	199903	This site is part of the overall effort to address improperly closed out sites. It required additional sampling to be conducted in FY08. Received regulatory closure from EPA, Region VII and the KDHE in January 2009.
FTRI-052	INACTIVE LANDFILLS - CAMP WHITSIDE	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-053	POL TANK FARM	200505	This site has been transferred to the Compliance-Related Cleanup Program under CC-FTRI-01.
FTRI-054	CUSTER HILL PX USTS BLDG 5320	199709	This site is part of the overall effort to address improperly closed out sites. It is being addressed in CC-FTRI-09 Fuel Dispensing Stations.
FTRI-055	MILFORD LAKE CAMPGROUND/MARINA WELLS	199507	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-059	REMOVE USTS	199012	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-060	MAINPOST PX GAS STATION / 218	199506	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-061	FORMER GAS SERVICE STATION BLDG 354	199510	This site was closed under the FTRI-031 354 Area Solvent Detection site ROD.
FTRI-062	TMP GAS STATION BLDG 388	200501	This site is part of the overall effort to address improperly closed out sites. It is being addressed in CC-FTRI-09 Fuel Dispensing Stations.
FTRI-063	FMR BLDG 1044 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is being addressed in FTRI-057 6200 Area Fuel Oil Line. This site has soil and groundwater contamination. A

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			remediation system is in operation.
FTRI-064	FMR BLDG 1090 DISPENSING STATION	199506	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-065	FMR BLDG 1190 DISPENSING STATION	199506	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-066	FMR BLDG 1245 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is being addressed in FTRI-057 6200 Area Fuel Oil Line. This site has soil and groundwater contamination. A remediation system is in operation.
FTRI-067	FMR BLDG 1539 DISPENSING STATION	199708	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-068	FMR BLDG 1637 DISPENSING STATION	200501	This site is part of the overall effort to address improperly closed out sites. It is being addressed in FTRI-057 6200 Area Fuel Oil Line. This site has soil and groundwater contamination. A remediation system is in operation.
FTRI-069	FMR BLDG 1890 DISPENSING STATION	199708	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-070	FMR BLDG 2341 DISPENSING STATION	199601	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-071	FMR BLDG 2345 DISPENSING STATION	199411	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-072	BLDG 8340 FUEL OIL UST	199411	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.
FTRI-073	BLDG 8360 FUEL OIL UST	199505	This site is part of the overall effort to address improperly closed out sites. Received regulatory closure from the EPA, Region VII & the KDHE in 2007.

IRP Schedule

Date of IRP Inception: 198312

Past Phase Completion Milestones

1985

PA (FTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTRI-004 - MAIN POST LANDFILL, FTRI-009 - OB/OD GROUND (RANGE 16) , FTRI-023 - CUSTER HILL WWTP AND SLUDGE BEDS, FTRI-024 - FORSYTH WWTP AND SLUDGE BEDS, FTRI-025 - MAIN POST WWTP AND SLUDGE BEDS, FTRI-027 - DRY CLEANING FACILITIES AREA , FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-032 - IMPACT ZONE, FTRI-033 - DOUTHIT RANGE, FTRI-034 - IMPACT AREA PERIMETER SMALL ARM RANGES, FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)
SI (FTRI-032 - IMPACT ZONE)
RFA (FTRI-008 - PCB STORAGE CONEX (BUILDING 348), FTRI-039 - CONSOLIDATED MAINTENANCE FACILITY)

1989

RFA (FTRI-001 - CUSTER HILL SANITARY LANDFILL, FTRI-002 - WHITSIDE C/D LANDFILL-CLOSED, FTRI-007 - PCB STORAGE BUILDING 343, FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-012 - WASTE STORAGE DRMO SECONDARY AREA, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-016 - WASTE OIL AST-3RD BATTERY, FTRI-017 - WASTE OIL AST-4TH BATTERY, FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR), FTRI-038 - FORSYTH LANDFILL(S), FTRI-041 - FURNITURE REPAIR SHOPS (3), FTRI-045 - PHOTO AND PRINT PLANTS, FTRI-046 - FRMR DS/GS Bldg 1693 Adj Areas, FTRI-050 - PCB SPILL AREAS /TRANSFORMER SITES)
INV (FTRI-018 - FIRE TRAINING AREA FACILITY (892))
PA (FTRI-014 - HOSPITAL INCINERATOR-IRWIN ACH, FTRI-019 - FORMER FIRE TRAINING AREA FFТА-MAAF, FTRI-020 - INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL), FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-026 - RANGE COMPLEX WW LAGOONS, FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON)
DES (FTRI-008 - PCB STORAGE CONEX (BUILDING 348))
ISC (FTRI-018 - FIRE TRAINING AREA FACILITY (892))
SI (FTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTRI-014 - HOSPITAL INCINERATOR-IRWIN ACH, FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-023 - CUSTER HILL WWTP AND SLUDGE BEDS, FTRI-024 - FORSYTH WWTP AND SLUDGE BEDS, FTRI-025 - MAIN POST WWTP AND SLUDGE BEDS, FTRI-027 - DRY CLEANING FACILITIES AREA , FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-034 - IMPACT AREA PERIMETER SMALL ARM RANGES, FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)
CS (FTRI-001 - CUSTER HILL SANITARY LANDFILL, FTRI-007 - PCB STORAGE BUILDING 343, FTRI-008 - PCB STORAGE CONEX (BUILDING 348), FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-016 - WASTE OIL AST-3RD BATTERY, FTRI-017 - WASTE OIL AST-4TH BATTERY)

1990

DES (FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH)

1991

IMP(C) (FTRI-059 - REMOVE USTS)
ISC (FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR), FTRI-059 - REMOVE USTS, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354, FTRI-063 - FMR BLDG 1044 DISPENSING STATION, FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION, FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTRI-069 - FMR BLDG 1890 DISPENSING STATION, FTRI-070 - FMR BLDG 2341 DISPENSING STATION)
INV (FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION)
IRA (FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTRI-069 - FMR BLDG 1890 DISPENSING STATION)
DES (FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON)
CMI(C) (FTRI-008 - PCB STORAGE CONEX (BUILDING 348))

IRP Schedule

1992

CMI(C) (FTRI-010 - PESTICIDE (2-4D) UST AT CAMP FUNSTON, FTRI-013 - ABANDONED VOC TANKS NORTH OF IACH, FTRI-049 - MERCURY CONTAMINATION AREAS)
 ISC (FTRI-054 - CUSTER HILL PX USTS BLDG 5320, FTRI-072 - BLDG 8340 FUEL OIL UST, FTRI-073 - BLDG 8360 FUEL OIL UST)
 RFA (FTRI-049 - MERCURY CONTAMINATION AREAS)
 IRA (FTRI-054 - CUSTER HILL PX USTS BLDG 5320, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354)

1993

PA (FTRI-011 - CAMP FUNSTON GW DETECTIONS, FTRI-031 - 354 AREA SOLVENT DETECTIONS (354), FTRI-037 - OLD WHITSIDE INCINERATOR AREA, FTRI-040 - FORMER OIL TESTING LAB (ANCHOR), FTRI-044 - FORMER ASPHALT PLANT (NEAR BLDG 354))
 RFI/CMS (FTRI-001 - CUSTER HILL SANITARY LANDFILL)
 CS (FTRI-002 - WHITSIDE C/D LANDFILL-CLOSED, FTRI-006 - DRMO STORAGE AREA, FTRI-012 - WASTE STORAGE DRMO SECONDARY AREA, FTRI-015 - FORMER DRMO LOCATION (DRMO AREA 2), FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR), FTRI-038 - FORSYTH LANDFILL(S), FTRI-039 - CONSOLIDATED MAINTENANCE FACILITY, FTRI-041 - FURNITURE REPAIR SHOPS (3), FTRI-045 - PHOTO AND PRINT PLANTS, FTRI-046 - FRMR DS/GS Bldg 1693 Adj Areas, FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY, FTRI-048 - FORMER PESTICIDES FACILITIES, FTRI-050 - PCB SPILL AREAS /TRANSFORMER SITES, FTRI-051 - BLDG. 727 WASTE PIT, FTRI-052 - INACTIVE LANDFILLS - CAMP WHITSIDE, FTRI-055 - MILFORD LAKE CAMPGROUND/MARINA WELLS)
 SI (FTRI-004 - MAIN POST LANDFILL, FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF, FTRI-020 - INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL), FTRI-026 - RANGE COMPLEX WW LAGOONS, FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON, FTRI-033 - DOUTHIT RANGE, FTRI-037 - OLD WHITSIDE INCINERATOR AREA)
 ISC (FTRI-043 - FORMER GAS STATIONS/GARAGES, FTRI-053 - POL TANK FARM, FTRI-060 - MAINPOST PX GAS STATION / 218)
 RI/FS (FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON, FTRI-032 - IMPACT ZONE)
 RFA (FTRI-005 - CUSTER HILL ROAD RUBBLE DUMP, FTRI-006 - DRMO STORAGE AREA, FTRI-015 - FORMER DRMO LOCATION (DRMO AREA 2), FTRI-042 - TAC VEHICLE MAINTENANCE SHOPS, FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY, FTRI-048 - FORMER PESTICIDES FACILITIES, FTRI-051 - BLDG. 727 WASTE PIT, FTRI-052 - INACTIVE LANDFILLS - CAMP WHITSIDE, FTRI-055 - MILFORD LAKE CAMPGROUND/MARINA WELLS)

1994

INV (FTRI-070 - FMR BLDG 2341 DISPENSING STATION, FTRI-072 - BLDG 8340 FUEL OIL UST)
 ISC (FTRI-056 - ABANDONED GASOLINE LINE, FTRI-062 - TMP GAS STATION BLDG 388, FTRI-071 - FMR BLDG 2345 DISPENSING STATION)
 IRA (FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING), FTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES, FTRI-060 - MAINPOST PX GAS STATION / 218)
 DES (FTRI-001 - CUSTER HILL SANITARY LANDFILL)
 RA(C) (FTRI-028 - FMR FIRE TRAINING AREA CAMP FUNSTON)

1995

RFI/CMS (FTRI-002 - WHITSIDE C/D LANDFILL-CLOSED, FTRI-012 - WASTE STORAGE DRMO SECONDARY AREA, FTRI-015 - FORMER DRMO LOCATION (DRMO AREA 2), FTRI-041 - FURNITURE REPAIR SHOPS (3), FTRI-045 - PHOTO AND PRINT PLANTS, FTRI-046 - FRMR DS/GS Bldg 1693 Adj Areas, FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY, FTRI-048 - FORMER PESTICIDES FACILITIES, FTRI-052 - INACTIVE LANDFILLS - CAMP WHITSIDE, FTRI-055 - MILFORD LAKE CAMPGROUND/MARINA WELLS)
 RI/FS (FTRI-037 - OLD WHITSIDE INCINERATOR AREA)
 CAP (FTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTRI-065 - FMR BLDG 1190 DISPENSING STATION)
 INV (FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR), FTRI-060 - MAINPOST PX GAS STATION / 218, FTRI-061 - FORMER GAS SERVICE STATION BLDG 354, FTRI-062 - TMP GAS STATION BLDG 388, FTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTRI-068 -

IRP Schedule

IMP(C)	FMR BLDG 1637 DISPENSING STATION, FTTRI-069 - FMR BLDG 1890 DISPENSING STATION, FTTRI-071 - FMR BLDG 2345 DISPENSING STATION, FTTRI-073 - BLDG 8360 FUEL OIL UST) (FTTRI-064 - FMR BLDG 1090 DISPENSING STATION, FTTRI-065 - FMR BLDG 1190 DISPENSING STATION, FTTRI-071 - FMR BLDG 2345 DISPENSING STATION, FTTRI-072 - BLDG 8340 FUEL OIL UST, FTTRI-073 - BLDG 8360 FUEL OIL UST)
CMI(C)	(FTTRI-001 - CUSTER HILL SANITARY LANDFILL)
SI	(FTTRI-011 - CAMP FUNSTON GW DETECTIONS, FTTRI-031 - 354 AREA SOLVENT DETECTIONS (354), FTTRI-044 - FORMER ASPHALT PLANT (NEAR BLDG 354))
1996	
IMP(C)	(FTTRI-070 - FMR BLDG 2341 DISPENSING STATION)
RI/FS	(FTTRI-003 - SOUTHWEST FUNSTON LANDFILL)
INV	(FTTRI-053 - POL TANK FARM, FTTRI-056 - ABANDONED GASOLINE LINE, FTTRI-063 - FMR BLDG 1044 DISPENSING STATION)
RD	(FTTRI-003 - SOUTHWEST FUNSTON LANDFILL)
1997	
RA(C)	(FTTRI-003 - SOUTHWEST FUNSTON LANDFILL)
RI/FS	(FTTRI-004 - MAIN POST LANDFILL, FTTRI-030 - PESTICIDE STORAGE FACILITY (MIXING))
INV	(FTTRI-054 - CUSTER HILL PX USTS BLDG 5320)
IRA	(FTTRI-003 - SOUTHWEST FUNSTON LANDFILL , FTTRI-062 - TMP GAS STATION BLDG 388, FTTRI-063 - FMR BLDG 1044 DISPENSING STATION)
CAP	(FTTRI-062 - TMP GAS STATION BLDG 388, FTTRI-063 - FMR BLDG 1044 DISPENSING STATION, FTTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTTRI-067 - FMR BLDG 1539 DISPENSING STATION, FTTRI-068 - FMR BLDG 1637 DISPENSING STATION, FTTRI-069 - FMR BLDG 1890 DISPENSING STATION)
1998	
RFI/CMS	(FTTRI-006 - DRMO STORAGE AREA, FTTRI-050 - PCB SPILL AREAS /TRANSFORMER SITES, FTTRI-051 - BLDG. 727 WASTE PIT)
RI/FS	(FTTRI-020 - INDUSTRIAL WASTEWATER SYSTEM (CUSTER HL))
SI	(FTTRI-009 - OB/OD GROUND (RANGE 16))
2000	
IRA	(FTTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON)
RI/FS	(FTTRI-035 - NON-IMPACT AREA SMALL ARMS RANGES)
2001	
RFI/CMS	(FTTRI-038 - FORSYTH LANDFILL(S))
PA	(FTTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
IRA	(FTTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR), FTTRI-038 - FORSYTH LANDFILL(S))
2003	
RI/FS	(FTTRI-029 - OLD INCINERATOR SITE SE-CAMP FUNSTON)
IRA	(FTTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)
2005	
CAP	(FTTRI-053 - POL TANK FARM)
RA(C)	(FTTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)
IRA	(FTTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR))
LTM	(FTTRI-011 - CAMP FUNSTON GW DETECTIONS, FTTRI-062 - TMP GAS STATION BLDG 388, FTTRI-063 - FMR BLDG 1044 DISPENSING STATION, FTTRI-066 - FMR BLDG 1245 DISPENSING STATION, FTTRI-068 - FMR BLDG 1637 DISPENSING STATION)
RI/FS	(FTTRI-011 - CAMP FUNSTON GW DETECTIONS, FTTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)

2006

IRA (FTRI-027 - DRY CLEANING FACILITIES AREA)
 RI/FS (FTRI-031 - 354 AREA SOLVENT DETECTIONS (354))

2007

RA(C) (FTRI-031 - 354 AREA SOLVENT DETECTIONS (354))
 RD (FTRI-031 - 354 AREA SOLVENT DETECTIONS (354))
 LTM (FTRI-022 - FORMER WWTP & SLUDGE BEDS (ANCHOR) , FTRI-038 - FORSYTH LANDFILL(S))

2008

RD (FTRI-027 - DRY CLEANING FACILITIES AREA)
 CAP (FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR))
 RA(C) (FTRI-027 - DRY CLEANING FACILITIES AREA)
 RI/FS (FTRI-027 - DRY CLEANING FACILITIES AREA)
 LTM (FTRI-040 - FORMER OIL TESTING LAB (ANCHOR), FTRI-047 - FORMER LIVESTOCK DIPPING FACILITY)

2009

DES (FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR))
 IRA (FTRI-056 - ABANDONED GASOLINE LINE)
 RFI/CMS (FTRI-036 - SOUTHEAST FUNSTON LANDFILL (ANCHOR))

2010

IMP(C) (FTRI-057 - 6200 AREA FUEL OIL LINE (ANCHOR))
 RA(O) (FTRI-003 - SOUTHWEST FUNSTON LANDFILL)
 LTM (FTRI-030 - PESTICIDE STORAGE FACILITY (MIXING))

2011

IRA (FTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
 CAP (FTRI-056 - ABANDONED GASOLINE LINE)
 DES (FTRI-056 - ABANDONED GASOLINE LINE)
 SI (FTRI-074 - WWI INCINERATOR, NW CAMP FUNSTON)
 RA(O) (FTRI-019 - FORMER FIRE TRAINING AREA FFTA-MAAF)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 201501

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of IRP at Installation (including LTM phase): 204003

FORT RILEY IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-001	CUSTER HILL SANITARY LANDFILL	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-003	SOUTHWEST FUNSTON LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-009	OB/OD GROUND (RANGE 16)	RI/FS						
		RD						
		RA(C)						
		RA(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-027	DRY CLEANING FACILITIES AREA	RA(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-031	354 AREA SOLVENT DETECTIONS (354)	RA(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-056	ABANDONED GASOLINE LINE	IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-057	6200 AREA FUEL OIL LINE (ANCHOR)	IMP(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-074	WWI INCINERATOR, NW CAMP FUNSTON	RI/FS						
		RD						
		RA(C)						
		RA(O)						

FORT RILEY
Army Defense Environmental Restoration Program
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 4/2

Installation Site Types with Future and/or Underway Phases

- 1 Landfill
(FTRI-003-R-01)
- 1 Small Arms Range
(FTRI-001-R-02)

Most Widespread Contaminants of Concern

Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern

Groundwater, Sediment, Soil, Surface Water

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
N/A				

Duration of MMRP

Date of MMRP Inception 200303

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201701/201701

Date of MMRP completion including Long Term Management (LTM): 202702

MMRP Contamination Assessment

Contamination Assessment Overview

The Military Munitions Response Program (MMRP) manages the environmental and health issues associated with MC and MEC. In 2000, FTRI completed the advance range survey followed by an active/inactive (A/I) range inventory in 2002. The closed, transferring, and transferred range (CTT)/site inventory report was completed in 2003. That report identified the Sherman Heights Small Arms Range (SHSAR) and the southeast Funston landfill (SEFL) incinerator site as inactive ranges requiring further investigation. In April 2005 the historical records review (HRR) on these two sites was completed. The SI work plan was completed July 1, 2005, and the SI was initiated in 2005.

There is a low potential for MEC, MC or unexploded ordnance (UXO) at the two sites. Sherman Heights is a small arms range that is wholly contained on the installation. In 1994, lead-contaminated soil was removed from Sherman Heights (Colyer Manor) under CERCLA. The SEFL incinerator site was transferred to the Kansas Department of Wildlife and Parks (KDWP). In 1999, lead-contaminated soil and UXO were removed from the SEFL incinerator site. In summer 2008, the state of Kansas performed UXO clearance in association with road construction and found no UXO.

There is a third site near the Camp Forsyth landfill area 2 contained in the sandbars within the Republican River. The site contains munitions debris. There have been three occasions where UXO removal or blow-in-place was conducted. The site is on the installation boundary and can be accessed by the general public in a relatively uncontrolled manner.

Cleanup Exit Strategy

Future actions will be determined on the basis of the results of the RI/FS. A MC and MEC soil removal, off-site soil disposal, institutional controls, and monitoring may be required.

MMRP Previous Studies

	Title	Author	Date
1993	Action Memorandum for Removal Action Sensitive-Receptor Lead Site - Colyer Manor Area, Fort Riley Military Installation, Fort Riley, Kansas	Fort Riley	DEC-1993
1994	Work Plan for Rapid Response Removal of Contaminated Soils Pesticide Storage Facility and Colyer Manor Sites, Fort Riley, Kansas	OHM Corporation	JAN-1994
	Project Report for Rapid Response Removal of Contaminated Soils Pesticide Storage Facility and Colyer Manor Sites, Fort Riley, Kansas (5 Volumes),	OHM Corporation	JUN-1994
2002	US Army Active/Inactive (A/I) Range Inventory Range Inventory Binder Fort Riley, Kansas	Colorado State University/FORSCOM	MAR-2002
2003	Closed, Transferring, and Transferred Range/Site Inventory Report Fort Riley, Kansas	e2M	OCT-2003
2005	Stakeholder Final of the Military Munitions Response Program Historical Records Review Fort Riley, Kansas	e2m	APR-2005
	Work Plan Military Munitions Response Program Site Inspection Munitions Response Sites Fort Riley - Kansas	e2m	JUL-2005
2006	Site Inspection Report Military Munitions Response Program Site Inspection Fort Riley, Kansas	e2m	MAY-2006
2010	Work Plan MMRP RI/FS Sherman Heights Small Arms Range Impact Slope (FTRI-001-R-02) Junction City, Kansas	Bay West	APR-2010
2011	MC Site Characterization Sampling Addendum MMRP Remedial Investigation and Feasibility Study (RI/FS) Sherman Heights Small Arms Range Impact Slope (FTRI-001-R-02) Fort Riley, Kansas	Bay West	NOV-2011

FORT RILEY
Military Munitions Response Program
Site Descriptions

Site ID: FTRI-001-R-02
Site Name: SHSAR Impact Slope

STATUS

Regulatory Driver: CERCLA

MRSPP Score: 04

Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	200303.....	200310
SI.....	200406.....	200605
RI/FS.....	200708.....	201310
RD.....	201311.....	201401
RA(C).....	201402.....	201410

RIP Date: N/A

RC Date: 201410

SITE DESCRIPTION

The SHSAR impact slope munitions response site (MRS) covers approximately 52 acres and is located above the Colyer Manor housing area in Camp Forsyth. Small arms ranges were operational from the 1880s until the 1980s. Pistols firing nine millimeter (mm), .22 caliber, .38 caliber, .45 caliber, small caliber (subcaliber) qualification anti-tank and .22 caliber (subcaliber) anti- aircraft machine guns were used on these ranges. During the 2005 site investigation fieldwork, four-inch practice mortars were discovered.

Lead contamination was the focus at the SHSAR Firing Points MRS, which is co-located with the Colyer Manor housing. In 1994 under the IRP, 1500 cu yds of lead-contaminated soil were removed from a target area near Building 3135. This site received clean closure in a 1994 SI report. Negative lead detections from confirmation soil sampling conducted during the 2005 MMRP SI fieldwork resulted in clean closure under the MMRP.

In 2010 an RI work plan was approved by the USEPA and the KDHE.

In 2010 and 2011, the site was characterized for MEC using a combination of digital and analog geophysical technologies. Anomalies were excavated and evaluated.

CLEANUP/EXIT STRATEGY

An RI/FS report will be prepared in 2012, followed by a PP and ROD in 2013.

Based on the RI risk assessment and regulatory review additional soil removal may be required.

Site ID: FTRI-003-R-01
Site Name: Camp Forsyth Landfill Area 2 MRS

STATUS

Regulatory Driver: CERCLA
MRSPP Score: 04
 Contaminants of Concern: Munitions and explosives of concern (MEC), Munitions constituents (MC)
 Media of Concern: Sediment, Surface Water

Phases	Start	End
PA.....	200303.....	200310
SI.....	200406.....	200605
RI/FS.....	200708.....	201603
RD.....	201604.....	201606
RA(C).....	201607.....	201701
LTM.....	201702.....	202702
RIP Date:	N/A	
RC Date:	201701	

SITE DESCRIPTION

The Camp Forsyth landfill area 2 MRS lies along the southwestern boundary of FTRI and covers approximately 30 acres of sandbars and riverbed in the Republican River. The River Walk, a nature trail, passes by the site. A series of warning signs are posted between the site and the River Walk to warn the public of the possible presence of munitions. During the winter months, bald eagles pass over the site as they travel between their roosting site downstream on the Kansas River and their feeding areas upstream on Milford Lake.

Munitions debris was found on a downstream sandbar after the 1993 regional flood. In 1994, this munitions debris consisting of 3.5- and 2.36-inch rockets, M1 mines, and expended small arms ammunitions was destroyed. In 2000 and 2001, a 1500-foot revetment was constructed to stabilize the bank on the FTRI side of the river. Between 2002 and 2009, additional debris, 2.36-inch rockets, and expended small arms ammunition has been found on the sandbar adjacent to the revetment during annual inspections.

In 2011, an RI work plan was submitted to the USEPA and the KDHE. In 2011, the site was characterized for MEC using a combination of digital and analog geophysical technologies. Anomalies were excavated and evaluated.

CLEANUP/EXIT STRATEGY

In 2013, additional site characterization and anomaly excavation will be conducted based on a revised RI work plan.

The RI/FS report, PP, and ROD will follow. If needed, institutional controls will be implemented through the RD/RA(C)/LTM phases.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTRI-001-R-01	SHERMAN HEIGHTS SMALL ARMS	200605	Made RC after the June 2006 Site Investigation based on no MEC or MC Contamination.
FTRI-002-R-01	SOUTHEAST FUNSTON LANDFILL	200605	Made RC after the June 2006 Site Investigation based on no MEC or MC Contamination.

MMRP Schedule

Date of MMRP Inception 200303

Past Phase Completion Milestones

2004

PA (FTRI-001-R-01 - SHERMAN HEIGHTS SMALL ARMS , FTRI-001-R-02 - SHSAR Impact Slope, FTRI-002-R-01 - SOUTHEAST FUNSTON LANDFILL, FTRI-003-R-01 - Camp Forsyth Landfill Area 2 MRS)

2006

SI (FTRI-001-R-01 - SHERMAN HEIGHTS SMALL ARMS , FTRI-001-R-02 - SHSAR Impact Slope, FTRI-002-R-01 - SOUTHEAST FUNSTON LANDFILL, FTRI-003-R-01 - Camp Forsyth Landfill Area 2 MRS)

Additional Past Phase Completion Milestones

2003

Preliminary Assessment, Sites FTRI-001-R-01, FTRI-001-R-02, FTRI-002-R-01, FTRI-003-R-01, October

2005

Site Investigation, Sites FTRI-001-R-01, FTRI-001-R-02, FTRI-002-R-01, FTRI-003-R-01, December

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
FTRI-001-R-02	SHSAR Impact Slope	SHSAR Impact Slope Decision Document	20130930
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	CFLA2 Decision Document	20130930

Final RA(C) Completion Date: 201701

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of MMRP at Installation (including LTM phase): 202702

FORT RILEY MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-001-R-02	SHSAR Impact Slope	RI/FS						
		RD						
		RA(C)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTRI-003-R-01	Camp Forsyth Landfill Area 2 MRS	RI/FS						
		RD						
		RA(C)						
		LTM						

FORT RILEY
Army Defense Environmental Restoration Program
Compliance Restoration

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 3/1

Installation Site Types with Future and/or Underway Phases

- 1 Contaminated Ground Water
(CC-FTRI-01)
- 1 Underground Storage Tank
(CC-FTRI-09)

Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL)

Media of Concern

Groundwater, Soil

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
N/A				

Duration of CR

Date of CR Inception: 199104

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 202009/202009

Date of CR completion including Long Term Management (LTM): 202009

CR Contamination Assessment

Contamination Assessment Overview

The POL tank farm is an active facility with six ASTs consisting of motor gasoline (MOGAS), diesel, and slop oil (recyclable liquid petroleum products). Spills varying in magnitude have occurred since the facility began operations. Free-product recovery events have resulted in only partial recovery. The POL tank farm has undergone several phases of an ongoing site investigation that found measurable free-product and levels of benzene that exceed MCL in the groundwater.

Building 388 is an active transportation motor pool dispensing station with two 8000-gallon ASTs for gasoline and diesel. In 2008, 32 gallons of free-product were recovered from the site.

Building 5320 is an Army/Air Force Exchange Services service station with four 6000-gallon gasoline ASTs.

Building 388 has free product and both sites have benzene contaminated groundwater above regulatory levels.

Cleanup Exit Strategy

CC-FTRI-01: Monitor and bail semi-annually until the tank farm ceases operations; develop and implement a regulator-approved corrective action.

CC-FTRI-09:

Bldg. 388--sample groundwater and soil, complete investigation for the free-product source, and develop regulator-approved corrective action.

Bldg. 5320--conduct groundwater sampling, determine removal schedule for tanks, pipes and pumps; develop and implement regulator-approved corrective action.

CR Previous Studies

Year	Title	Author	Date
1995	Final Letter Report POL Tank Farm Site Investigation POL UST Site Investigations/Remedial Action Plans Fort Riley, Kansas	Dames & Moore	NOV-1995
1998	Data Summary Report for the POL Tank Farm Investigation Fort Riley, Kansas	Corps of Engineers - Kansas City District	JUL-1998
	Letter Report - Custer Hill POL Facility Fractured Limestone Analysis	Burns & McDonnell	SEP-1998
1999	Draft Site Specific Safety and Health Plan Phase II Site Investigation at POL Tank Farm Custer Hill Fort Riley, Kansas	Burns & McDonnell	AUG-1999
	Quality Control Plan Phase II Site Investigations at POL Tank Farm Custer Hill Fort Riley, Kansas	Burns & McDonnell	AUG-1999
	Tracer Integrity Test 500' IW Sewer Line Fort Riley Manhattan Kansas September 1999	Tracer Research Corporation	SEP-1999
	Draft Final Site Specific Sampling and Analysis Plan Phase II Site Investigations at POL Tank Farm Custer Hill Fort Riley, Kansas	Burns & McDonnell	OCT-1999
2002	Draft Final Phase II Assessment Addendum for the Petroleum Tank Farm Facilities Area at Fort Riley, Kansas	Burns & McDonnell	AUG-2002
	Draft Final Phase II Site Investigation Report for the POL Tank Farm at Fort Riley, Kansas	Burns & McDonnell	AUG-2002
2003	Draft Final Work Plan Addendum Phase II Site Investigation for the POL Tank Farm at Fort Riley, Kansas	Burns & McDonnell	FEB-2003
	Quality Control Summary Report June 2003 Groundwater Sampling Event at the POL Tank Farm at Main Post Fort Riley, Kansas	Burns & McDonnell	JUL-2003
2004	Quality Control Summary Report June 2004 Groundwater Sampling Event at the POL Tank Farm at Fort Riley, Kansas	Burns & McDonnell	AUG-2004
	Field Technical Memorandum for the POL Tank Farm at Fort Riley, Kansas	Burns & McDonnell	SEP-2004
	Quality Control Summary Report October 2004 Groundwater Sampling Event at the POL Tank Farm at Fort Riley, Kansas	Burns & McDonnell	OCT-2004
	Boring Logs Phase II Site Investigation POL Tank Farm Fort Riley, Kansas	Burns & McDonnell	DEC-2004
2005	Quality Control Summary Report February 2005 Groundwater Sampling Event at the POL Tank Farm at Fort Riley, Kansas	Burns & McDonnell	MAR-2005
	Data Summary Report Phase II Site Investigation for the POL Tank Farm Investigation Fort Riley, Kansas	Burns & McDonnell	JUN-2005
	Draft Final Site Investigation Work Plan for the Petroleum, Oil, and Lubricant Site 388 at Main Post Fort Riley, Kansas	ECC/Burns & McDonnell	JUN-2005

CR Previous Studies

Year	Title	Author	Date
2005	Draft Final Site Investigation Work Plan for the Petroleum, Oil, and Lubricant Site 5320 at Main Post Fort Riley, Kansas	ECC/Burns & McDonnell	JUN-2005
2008	Project Submittals for the Petroleum, Oil, and Lubricant Tank Farm Custer Hill Fort Riley, Kansas	ECC/Burns & McDonnell	JAN-2008
	Quality Control Summary Report May 2008 Groundwater Sampling Event at the Petroleum, Oil, and Lubricant Site 5320 Fort Riley, Kansas	ECC/Burns & McDonnell	JUN-2008
	Quality Control Summary Report SVE/DPE and November 2008 Groundwater Sampling Event at the Petroleum, Oil, and Lubricant Site 388 Fort Riley, Kansas	ECC/Burns & McDonnell	DEC-2008
2009	Data Summary Report for the SVE/DPE Pilot Test and the November 2008 Groundwater Sampling Event for the POL Site 388 at Fort Riley, Kansas	ECC/Burns & McDonnell	MAR-2009
	2008 Data Summary Report Product Recovery Remediation System for the POL Tank Farm Custer Hill Fort Riley, Kansas	ECC/Burns & McDonnell	JUN-2009
2010	Site-Specific Safety and Health Plan Fuels Sites Environmental Investigation (Multiple Sites) at Fort Riley, Kansas (388, 1460, 2597, & 5320)	Malcolm Pirnie/Burns & McDonnell	JAN-2010
	Plan Addenda Fuels Sites Environmental Investigation (Multiple Sites) at Fort Riley, Kansas Sampling and Analysis Plan Addendum Volume I - FSP Addendum Volume II QAPP Addendum Investigative Derived Waste Management Plan Addendum (388, 1460, 2597, & 5320)	Malcolm Pirnie/Burns & McDonnell	FEB-2010
	Work Plan Fuels Sites Environmental Investigation (Multiple Sites) at Fort Riley, Kansas (388, 1460, 2597, & 5320)	Malcolm Pirnie/Burns & McDonnell	FEB-2010
	Quality Control Summary Report Fuels Sites Environmental Investigation (Multiple Sites) at Fort Riley, Kansas (388, 1460, 2597, & 5320)	Louis Berger/Burns & McDonnell	MAY-2010
	Quality Control Summary Report June 2010 Groundwater Sampling Event at the Petroleum, Oil, and Lubricant Tank Farm Site Fort Riley, Kansas	ECC/Burns & McDonnell	AUG-2010
	Site Recommendation Reports Building 388 Building 1460 Building 2597 Data Summary Report Buildings 388 and 5320 Fuels Sites Environmental Investigation at Fort Riley, Kansas	Louis Berger/Burns & McDonnell	SEP-2010
	2010 Data Summary Report for the Product Recovery Remediation System and Groundwater Sampling Event at the POL Tank Farm Custer Hill Fort Riley, Kansas	ECC/Burns & McDonnell	OCT-2010
2011	Draft Final Building 388 Site Additional Investigation Work Plan at Main Post Fort Riley, Kansas	Louis Berger/Burns & McDonnell	AUG-2011
	Quality Control Summary Report June 2011 Groundwater Sampling Event at the Petroleum, Oil, and Lubricant Tank Farm Site Fort Riley, Kansas	ECC/Burns & McDonnell	OCT-2011

FORT RILEY
Compliance Restoration
Site Descriptions

Site ID: CC-FTRI-01
Site Name: POL Tank Farm Site

STATUS

Regulatory Driver: RCRA
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)
Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199104.....	200509
INV.....	199809.....	202009
IRA.....	200709.....	201509

RIP Date: N/A
RC Date: 202009

SITE DESCRIPTION

CC-FTRI-01 (alias FTRI-053) is an active POL tank farm, located on First Division Road on the eastern side of the Custer Hill troop area. The construction of the POL tank farm facility began in 1987 and was completed in 1989. The facility was constructed to consolidate storage of petroleum products for the Custer Hill troop area. The products currently stored at the POL Tank Farm in six ASTs consist of MOGAS, diesel, and slop oil (recyclable liquid petroleum products). The site has been shifted from AEDB-CC to the CR program.

The POL records indicate that spills varying in magnitude have occurred since the facility began operations. Free-product recovery events have resulted in only partial recovery. The POL Tank Farm has undergone several phases of an ongoing site investigation that found measurable free-product and levels of benzene that exceed MCL in the groundwater. Low concentrations of fuel-related contaminants were also detected in some sediment samples collected from an adjacent ephemeral streambed.

Manual removal of free-product has reduced, but not eliminated, the presence of free-product within the POL tank farm.

An FY11 evaluation determined there was minimal current risk to human health and the environment.

Annual groundwater sampling is required as long as free-product is present at the site. Semiannual free-product recovery by manual bailing will continue as needed.

CLEANUP/EXIT STRATEGY

Install three additional monitoring wells to determine the extent of the groundwater contamination. This will determine if a more aggressive approach is required.

Site ID: CC-FTRI-09
Site Name: Fuel Dispensing Stations

STATUS

Regulatory Driver: RCRA
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)
Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200810.....	200811
INV.....	200812.....	201809
RIP Date:	N/A	
RC Date:	201809	

SITE DESCRIPTION

This site consists of two active fuel dispensing stations.

Building 388 (FTRI-062) is a transportation motor pool dispensing station. In 2008, approximately 32 gallons of free-product were recovered from the site and the groundwater has benzene contamination above the MCL of five ug/L.

Building 5320 (FTRI-054) is an Army/Air Force Exchange Services service station that also has benzene groundwater contamination above the MCL. Both sites are in the "monitor" status in the KDHE's buried tank leak assessment database. The site has been transferred from the AEDB-CC to the CR program.

The regulator has requested additional work to define the extent of the groundwater plume/free-product and continued groundwater monitoring and bailing at both sites.

CLEANUP/EXIT STRATEGY

Building 388--Groundwater and soil data will be analyzed to determine what further investigation and cleanup actions are required.

Building 5320--Utilize data from 2012 groundwater sampling event to formulate a plan of action once the site is released by installation property.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CC-FTRI-10	Fuel USTs (Active & Abandoned)	201009	

CR Schedule

Date of CR Inception: 199104

Past Phase Completion Milestones

2005

ISC (CC-FTRI-01 - POL Tank Farm Site)

2009

ISC (CC-FTRI-09 - Fuel Dispensing Stations, CC-FTRI-10 - Fuel USTs (Active & Abandoned))

2010

INV (CC-FTRI-10 - Fuel USTs (Active & Abandoned))

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

To Be Determined

Final RA(C) Completion Date:

Schedule for Next Five-Year Review: 2012

Estimated Completion Date of CR at Installation (including LTM phase): 202009

FORT RILEY CR Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CC-FTRI-01	POL Tank Farm Site	INV						
		IRA						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CC-FTRI-09	Fuel Dispensing Stations	INV						

Community Involvement

Technical Review Committee (TRC): 199201

Community Involvement Plan (Date Published): 200509

Restoration Advisory Board (RAB): RAB established 199709

RAB Adjournment Date: N/A

RAB Adjournment Reason: None

Additional Community Involvement Information

On Sept. 30, 1997, FTRI held its orientation meeting for members of the community who were interested in participating on a RAB. Adjacent landowners, local environmental groups, local college professors, mayors and other public officials, members of the local Chambers of Commerce, and select individuals recommended to the Directorate of Environment and Safety were invited to the orientation meeting by direct mail. Newspaper advertisements and television and radio announcements were also used to announce the formation of the RAB.

Approximately 20 people attended the orientation meeting. If they had not completed and returned an application beforehand, interested community members were asked to complete an application, a biographical information form and a demographic information form. A community co-chair was elected by the community representatives who were in attendance. The low number of applications received at that time made it possible to appoint everyone that applied to be a member of the RAB.

The current RAB members include citizens from Riley and Geary Counties in addition to the USEPA, the KDHE and representatives from the Geary County Extension Office and the city of Ogden (former mayor).

The RAB meets on an as-needed basis or once per year. There are no off-installation repositories at this time. An updated community involvement plan will be completed in 2012. RAB meetings were held in April 2008, April 2009, May 2010, and January 2011. The main topics in 2011 were Camp Forsyth landfill area 2, FTRI-003-R-01; remediation project at FTRI-057, and the proposed remediation activities at FTRI-056. The next meeting is planned for March 2012.

Over the next year RAB members will continue to gain knowledge of FTRI's sites and regulatory issues, review documents, provide technical advice, and participate in formal public comment period activities.

Administrative Record is located at

407 Pershing Court
Fort Riley, KS 66442
(785) 239-3194/8536/3343

Information Repository is located at

407 Pershing Court
Fort Riley, KS 66442
(785) 239-3194/8536/3343

Current Technical Assistance for Public Participation (TAPP):N/A

TAPP Title: N/A

Potential TAPP: N/A

