

FY2015

FORT DRUM

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 US Army Environmental Command (USAEC), Fort Drum (FTD), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative 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

AAFES	Army and Air Force Exchange Service
AAS	Aquifer Air Sparging
AEDB-CC	Army Environmental Database - Compliance-related Cleanup
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
ASL	Airfield Sanitary Landfill
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CC	Compliance-related Cleanup
CCAR	Comprehensive Contamination Assessment Report
CDAP	Chemical Data Acquisition Plan
CMI(C)	Corrective Measures Implementation - Construction
CMI(O)	Corrective Measures Implementation - Operations
CMS	Corrective Measures Study
CR	Compliance Restoration
DD	Decision Document
DERP	Defense Environmental Restoration Program
DES	Design
DGS	Data Gap Study
DoD	Department of Defense
DPE	Dual Phase Extraction
EOD	Explosive Ordnance Disposal
EPR	Environmental Program Requirements
ER,A	Environmental Restoration, Army
FIP	Field Investigation Plan
FRA	Final Remedial Action
FS	Feasibility Study
FTD	Fort Drum
FTS	Focused Technical Selection
FY	Fiscal Year
GIS	Geographical Information System
GW	Groundwater
HFAC	Hancock Field Army Complex
HTRW	Hazardous, Toxic, and Radioactive Waste
IAP	Installation Action Plan
ICMS	Interim Corrective Measures Study
ID	Identification
IDW	Investigation Derived Waste
IMCOM	Installation Management Command
IR	Installation Restoration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
ISCO	In situ Chemical Oxidation
K	thousand
kg	kilograms
LNAPL	Light Non-Aqueous Phase Liquid

Acronyms

LTM	Long-Term Management
LUC	Land Use Control
LUST	Leaking Underground Storage Tank
mg	milligram
mg/l	milligram per liter
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MPE	Multi-Phase Extraction
MR	Munitions Response
MTBE	Methyl Tertiary-Butyl Ether
MW/PZ	Monitoring Well/Piezometer
N/A	Not Applicable
NFA	No Further Action
NJANG	New Jersey Air National Guard
NPL	National Priorities List
NYANG	New York Air National Guard
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
O&M	Operations and Maintenance
ODUSD(I&E)	Office of the Deputy Under Secretary of Defense for Installations and Environment
ORC	Oxygen Releasing Compound
OSL	Old Sanitary Landfill
PAH	Polycyclic Aromatic Hydrocarbons
PBA	Performance-Based Acquisition
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
POL	Petroleum, Oil and Lubricants
RA	Remedial Action
RA(C)	Remedial Action - Construction
RA(O)	Remedial Action - Operations
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SAGE	Surface Air Ground Environment Complex
SI	Site Inspection
SOW	Scope of Work
SSI	Site Screening Inspection
SVE	Soil Vapor Extraction

Acronyms

SVOC	Semi Volatile Organic Compound
SW	Surface Water
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USAEHA	US Army Environmental Hygiene Agency
USAG	US Army Garrison
USAR	US Army Reserves
USATHAMA	US Army Toxic and Hazardous Materials Agency
USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UVB	Air Sparging Bioventing technology, "Unterdruck-Verdampfer-Brunnen"
VOC	Volatile Organic Compound
WET	Wetlands Evaluation Technique
WWII	World War II

Installation Information

Installation Locale

Installation Size (Acreage): 108737

City: Fort Drum

County: Jefferson, Lewis

State: New York

Other Locale Information

FTD is located in northern New York state, approximately 16 kilometers northeast of Watertown, in Jefferson and Lewis counties, and it borders St. Lawrence County. Seven small towns with populations between 2,000 and 8,000 each border the installation. Approximately 31,000 military personnel, their dependents, and civilian employees reside and/or work at FTD on a daily basis. The installation, which is roughly rectangular, consists of 108,737 acres measuring 10 kilometers wide and 32 kilometers long, making it the largest Army installation in the northeast.

Installation Mission

US Army Garrison (USAG) FTD's mission is provide Best in Army services and infrastructure for our Soldiers, families and civilians who support our nation during a time of persistent conflict.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

USACE

USAEC

Regulator Participation

Federal

US Environmental Protection Agency (USEPA), Region II

State

New York State Department of Environmental Conservation (NYSDEC)

National Priorities List (NPL) Status

FORT DRUM is not on the NPL

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

The community has expressed no sufficient, sustained interest in a RAB.

Installation Program Summaries

IRP

Primary Contaminants of Concern: Metals, Petroleum, Oil and Lubricants (POL), Polycyclic Aromatic Hydrocarbons (PAH), Volatiles (VOC)

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

CR

Primary Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Affected Media of Concern: Groundwater, Soil

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Underway	201303	201512	2016

5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
FTD-007 Area 3805/OSL Final CMS Letter	FTD-007
FTD-012 Abandoned Landfill near Deferiet	FTD-001, FTD-002, FTD-003, FTD-004, FTD-005, FTD-006, FTD-007, FTD-008, FTD-010, FTD-011, FTD-012, FTD-013, FTD-014, FTD-020, FTD-022, FTD-027, FTD-028, FTD-030B, FTD-030C, FTD-031, FTD-032, FTD-033, FTD-072, FTD-073, FTD-074, FTD-075, FTD-076, FTD-077, FTD-079, FTD-081, FTD-082, FTD-083, FTD-085, FTD-086, FTD-088, FTD-089, FTD-090, FTD-092, FTD-094, FTD-111, FTD-112
FTD-025 Old Hosford Swimming Pool	FTD-025
FTD-030F Area 3805/OSL Final CMS Letter	FTD-030F
FTD-074 Building P-44 DOL Battery Shop	FTD-074
FTD-076 BLDG T-4002	FTD-076
FTD-077 Building S-2005 Closure	FTD-077
FTD-083 Paint Dump Site	FTD-083
FTD-085 Old POL Drying Beds	FTD-085
FTD-088 BLDG T-4006 UST	FTD-088
FTD-094 Former Pesticide Storage S-2517	FTD-094
Final CMS AAFES Station	FTD-091
Final Focused Technical Selection, Area	FTD-030A
Final SMMP For Area 1395	FTD-030B
Final SMMP For Area 1495	FTD-030C
Final SMMP for Area 1245	FTD-089
Final SMMP for Building T-91	FTD-031
Order on Consent Fort Drum(Site #623008)	FTD-001, FTD-002, FTD-003, FTD-004, FTD-005, FTD-006, FTD-007, FTD-008, FTD-009, FTD-010, FTD-011, FTD-012, FTD-013, FTD-014, FTD-020, FTD-022, FTD-024, FTD-025, FTD-027, FTD-028, FTD-030A, FTD-030B, FTD-030C, FTD-030D, FTD-030E, FTD-030F, FTD-031, FTD-072, FTD-073, FTD-074, FTD-076, FTD-077, FTD-079, FTD-081, FTD-082, FTD-083, FTD-085, FTD-086, FTD-088, FTD-089, FTD-090, FTD-091, FTD-092, FTD-094, FTD-110, FTD-111, FTD-112

Land Use Control (LUC) Summary

LUC Title: Area 1245

Site(s): FTD-089

ROD/DD Title: Final SMMP for Area 1245

Location of LUC

Area 1245

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes

Types of Engineering Controls: None

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

Date in Place: 201207

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 201207

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: Building T-91

Site(s): FTD-031

ROD/DD Title: Final SMMP for Building T-91

Location of LUC

Building T-91 site

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes

Types of Engineering Controls: None

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

Date in Place: 201207

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 201207

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: Final SMMP Area 1395

Land Use Control (LUC) Summary

Site(s): FTD-030B

ROD/DD Title: Final SMMP For Area 1395

Location of LUC

Area 1295

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes

Types of Engineering Controls: None

Types of Institutional Controls: Construction Permit, Dig Permits, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 201207

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 201207

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: Final SMMP For Area 1495

Site(s): FTD-030C

ROD/DD Title: Final SMMP For Area 1495

Location of LUC

Area 1495

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes

Types of Engineering Controls: None

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

Date in Place: 201207

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 201207

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

Cleanup Program Summary

Installation Historic Activity

The installation has been used as a military training site since 1908; however, the Army's presence in the New York North Country may be traced back to the early 1800s.

In 1809, a company of infantry Soldiers was stationed at Sackets Harbor to enforce the Embargo Act and control smuggling between northern New York and Canada. Following the outbreak of the War of 1812, Sackets Harbor became the center of United States naval and military activity for the upper St. Lawrence River Valley and Lake Ontario.

During the 1830s and 1840s, the Patriots War in Canada prompted a new round of military preparations and Madison Barracks became the home of artillery units.

Learning that the war department was looking for areas in northern New York to train the troops, the Watertown Chamber of Commerce proposed that the Army establish a training area on 10,000 acres of land along the Black River in the vicinity of Felts Mills, Great Bend and the village of Black River.

In 1908 Brigadier General Frederick Dent Grant, son of General Ulysses S. Grant, was sent to the area with 2,000 regulars and 8,000 militia. He found Pine Plains to be an ideal place to train troops. The following year, money was allocated to purchase the land and summer training continued through the subsequent years. The camp's first introduction to the national spotlight came in 1935, when the largest peacetime maneuvers were held on Pine Plains and surrounding farmlands.

The 36,500 Soldiers came from throughout the northeast to take part in the exercise. Some Soldiers traveled by trains which arrived in town every 15 minutes, coming from as far away as Buffalo and New York City. For 36 hours, young men from offices, factories, and farms marched, attacked, and defended in tactical exercises on the 100 square miles the Army had leased for its war games. The maneuvers were judged to be most successful, and the war department purchased another 9,000 acres of land.

With the outbreak of World War II (WWII), the area then known as Pine Camp was selected for a major expansion and an additional 75,000 acres of land was purchased. With that purchase, 525 local families were displaced. Five entire villages were eliminated, while others were reduced by one-third to one-half their size.

By Labor Day 1941, 100 tracts of land were taken over. Three thousand buildings, including 24 schools, six churches and a post office were abandoned. Contractors then went to work, and in a period of 10 months at a cost of \$20 million, an entire city was built to house the divisions scheduled to train.

Eight hundred buildings were constructed, including 240 barracks, 84 mess halls, 86 storehouses, 58 warehouses, 27 officers' quarters, 22 headquarters buildings, and 99 recreational buildings, as well as guardhouses and a hospital. Construction workers paid the price, as winter 1941-1942 was one of the coldest in New York North Country history.

The three divisions to train at Pine Camp were General George S. Patton's 4th Armored Division (General Creighton Abrams was a battalion commander at the time), the 45th Infantry Division, and the 5th Armored Division.

The post also served as a prisoner-of-war camp. Of those prisoners who died at the post, one Italian and six Germans are still buried in the Sheepfold Cemetery near Remington Pond.

In 1951 Pine Camp was renamed Camp Drum, after Lt. Gen. Hugh A. Drum who commanded the First Army during WWII. During and after the Korean Conflict, a number of units were stationed and trained at the camp to take advantage of the terrain and climate.

The post was designated FTD in 1974 and a permanent garrison was assigned. In April 1980, B Company, 76th Engineer Battalion (Combat Heavy) was reassigned to FTD from Fort Meade, Maryland. It was followed by the rest of the battalion, less Company D, three years later.

In January 1984, the Department of the Army announced it was studying selected Army posts to house a new light infantry division. On Sept. 11, 1984, the announcement was made that FTD would be the new home of the 10th Light Infantry Division.

The first division troops arrived at FTD on Dec. 3, 1984, and the unit was officially activated on Feb. 13, 1985. At that time the name was changed to the 10th Mountain Division (Light Infantry). The mission of the 10th Mountain Division is to rapidly deploy by air, sea, and land anywhere in the world, prepared to fight upon arrival and win.

Cleanup Program Summary

Installation Historic Activity

On June 4, 1985 the identity of a roundout brigade was announced. The brigade was composed of New York Army National Guard battalions from central and northern New York under the 27th Infantry Brigade.

On June 28, 1985 the 76th Engineer Battalion was inactivated. The division reached full strength in 1989. Between 1986 and 1992, 130 new buildings, 35 miles of roads, and 4,272 sets of family housing units were built at a cost of \$1.3 billion.

Since the early-1990s, FTD has continued to construct and expand facilities to include training ranges, airfield facilities, and support facilities for rapid deployment. The primary cause of contamination of the environment throughout Fort Drum's history has been the failure of components related to fueling systems such as piping and valves.

Installation Program Cleanup Progress

IRP

Prior Year Progress: The corrective measures implementation (operation)(CMI(O)) was continued at FTD-030A, 030D, 030E, 030F, and 091; long-term management (LTM) continued at FTD-007 and FTD 008 under a performance-based acquisition (PBA) contract. PBA contractor continued use of ozone sparging at FTD-030A and bio application at FTD-030A, 030D, 030E, 030F and 091 to accelerate progress. Closure was achieved through a consent order for 39 sites. A community relation plan will be developed and implemented in 2015.

Future Plan of Action: A new contract awarded by USACE Baltimore has optimization and closeout activities planned for FTD-030A, FTD-030D, FTD-030E, FTD-030F, and FTD-091 by the end of 2019. LTM activities continue at FTD-007 and FTD-008.

CR

Prior Year Progress: CCFD-030G remedial investigation (RI) of tetrachloroethylene (PCE) contamination continued. The CCFD-030H RI/feasibility study (FS) and interim remedial action (IRA) are complete. Closure of CCFD-030H is expected in 2015.

Future Plan of Action: An RI/FS and ROD will be completed at CCFD-030G and a remedial design (RD)/remedial action - construction [RA(C)] initiated.

FORT DRUM
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 54/47

Installation Site Types with Future and/or Underway Phases

2	Landfill (FTD-007, FTD-008)
1	Soil Contamination After Tank Removal (FTD-091)
4	Underground Tank Farm (FTD-030A, FTD-030D, FTD-030E, FTD-030F)

Most Widespread Contaminants of Concern

Metals, Petroleum, Oil and Lubricants (POL), Polycyclic Aromatic Hydrocarbons (PAH), 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
FTD-007	OLD SANITARY LANDFILL	IRA	CAPPING	1986
FTD-030D	GASOLINE ALLEY - AREA 1595	IRA	GROUND WATER TREATMENT	1994
FTD-077	HAZARDOUS WASTE STORAGE SITE BLDG S-2005	FRA	WASTE REMOVAL - SOILS	1994
FTD-003	SEWAGE TREATMENT PLANT	FRA	WASTE REMOVAL - SOILS	1995
FTD-030D	GASOLINE ALLEY - AREA 1595	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1995
FTD-007	OLD SANITARY LANDFILL	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1996
FTD-087	SAGE COMPLEX USTS	FRA	WASTE REMOVAL - SOILS	1996
FTD-087	SAGE COMPLEX USTS	FRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1996
FTD-008	AIRFIELD SANITARY LANDFILL	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1997
FTD-072	NEW JERSEY ANG POND	FRA	WASTE REMOVAL - SOILS	1997
FTD-074	DOL BATTERY SHOP BLDG P-44	FRA	WASTE REMOVAL - SOILS	1997
FTD-076	PESTICIDE/HERBICIDE STORAGE BLDG T-4002	FRA	WASTE REMOVAL - SOILS	1997
FTD-076	PESTICIDE/HERBICIDE STORAGE BLDG T-4002	FRA	INCINERATION	1997
FTD-093	SAGE COMPLEX STORM SEWER OUTFALL	FRA	WASTE REMOVAL - SOILS	1997
FTD-007	OLD SANITARY LANDFILL	IRA	WASTE REMOVAL - DRUMS, TANKS, BULK CONTAINERS	1998
FTD-007	OLD SANITARY LANDFILL	IRA	DRAINAGE CONTROLS	1999
FTD-008	AIRFIELD SANITARY LANDFILL	FRA	DRAINAGE CONTROLS	1999
FTD-008	AIRFIELD SANITARY LANDFILL	FRA	CAPPING	1999
FTD-089	BLDG 1245 UST	IRA	GROUND WATER TREATMENT	1999
FTD-112	TRAINING SITE POL CONTAM. NEAR RANGE 17	IRA	WASTE REMOVAL - SOILS	1999
FTD-030B	GASOLINE ALLEY - AREA 1395	FRA	NATURAL ATTENUATION	2001

IRP Summary

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

Site ID	Site Name	Action	Remedy	FY
FTD-030B	GASOLINE ALLEY - AREA 1395	FRA	SOIL VAPOR EXTRACTION	2001
FTD-030B	GASOLINE ALLEY - AREA 1395	FRA	BIOVENTING	2001
FTD-030B	GASOLINE ALLEY - AREA 1395	FRA	AIR SPARGING	2001
FTD-030C	GASOLINE ALLEY - AREA 1495	FRA	BIOVENTING	2001
FTD-030C	GASOLINE ALLEY - AREA 1495	FRA	SOIL VAPOR EXTRACTION	2001
FTD-030C	GASOLINE ALLEY - AREA 1495	FRA	AIR SPARGING	2001
FTD-030C	GASOLINE ALLEY - AREA 1495	FRA	NATURAL ATTENUATION	2001
FTD-091	BLDG P-2140 USTS	FRA	NATURAL ATTENUATION	2002
FTD-091	BLDG P-2140 USTS	FRA	AIR SPARGING	2002
FTD-091	BLDG P-2140 USTS	FRA	DUAL-PHASE EXTRACTION	2002
FTD-091	BLDG P-2140 USTS	IRA	GROUND WATER TREATMENT	2002
FTD-091	BLDG P-2140 USTS	IRA	FREE PRODUCT RECOVERY	2002
FTD-030F	GASOLINE ALLEY - AREA 3805	FRA	DUAL-PHASE EXTRACTION	2004
FTD-089	BLDG 1245 UST	FRA	NATURAL ATTENUATION	2005
FTD-030D	GASOLINE ALLEY - AREA 1595	FRA	AIR SPARGING	2006
FTD-030D	GASOLINE ALLEY - AREA 1595	FRA	SOIL VAPOR EXTRACTION	2006
FTD-030D	GASOLINE ALLEY - AREA 1595	FRA	BIOVENTING	2006
FTD-030D	GASOLINE ALLEY - AREA 1595	FRA	NATURAL ATTENUATION	2006
FTD-031	BUILDING T-91	FRA	NATURAL ATTENUATION	2006
FTD-007	OLD SANITARY LANDFILL	FRA	DRAINAGE CONTROLS	2007
FTD-007	OLD SANITARY LANDFILL	FRA	OTHER	2007
FTD-007	OLD SANITARY LANDFILL	FRA	CAPPING	2007
FTD-030A	GASOLINE ALLEY - AREA 1295	FRA	NATURAL ATTENUATION	2007
FTD-030A	GASOLINE ALLEY - AREA 1295	FRA	CHEMICAL REDUCTION/OXIDATION	2007
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	FRA	BIOVENTING	2007
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	FRA	AIR SPARGING	2007
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	FRA	INSTITUTIONAL CONTROLS	2007
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	FRA	REMOVAL	2007
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	FRA	NATURAL ATTENUATION	2007
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	FRA	SOIL VAPOR EXTRACTION	2007

IRP Summary

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

Site ID	Site Name	Action	Remedy	FY
FTD-030F	GASOLINE ALLEY - AREA 3805	FRA	AIR SPARGING	2007
FTD-030F	GASOLINE ALLEY - AREA 3805	FRA	NATURAL ATTENUATION	2007
FTD-030B	GASOLINE ALLEY - AREA 1395	FRA	INSTITUTIONAL CONTROLS	2012
FTD-030C	GASOLINE ALLEY - AREA 1495	FRA	INSTITUTIONAL CONTROLS	2012
FTD-089	BLDG 1245 UST	FRA	INSTITUTIONAL CONTROLS	2012
FTD-111	T-2161 WATER TOWER	IRA	WASTE REMOVAL - SOILS	2013

Duration of IRP

Date of IRP Inception: 198010

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201309/201510

Date of IRP completion including Long Term Management (LTM): 204412

IRP Contamination Assessment

Contamination Assessment Overview

Studies of potentially contaminated sites at FTD began in 1980 when the US Army Toxic and Hazardous Materials Agency (USATHAMA) conducted an installation assessment. This study identified 35 AOCs. In 1986 USATHAMA contracted to have an RI performed; six sites were studied in depth and the US Army Environmental Hygiene Agency (USAEHA) conducted an evaluation of solid waste management units (SWMUs), which considered 72 AOCs. Currently, there are seven active Installation Restoration Program (IRP) sites that are being remediated or undergoing LTM. The other sites have been classified as needing no further action (NFA) or have been remediated and are awaiting final closure pending NYSDEC review.

Past solid waste disposal practices have resulted in the contamination of soil, surface water, sediment and groundwater with landfill leachate containing petroleum hydrocarbons, heavy metals, pesticides, solvents, and paint components. Formerly leaking underground storage tanks (UST) resulted in free-product floating on the water table, contaminating the groundwater, surface water, sediment and soil. Past explosive ordnance disposal (EOD) activities caused elevated levels of heavy metals and trace explosive and propellant compounds in the soil and groundwater. Two buildings/sites were contaminated with pesticides.

Petroleum is the predominant contaminant at the remaining 11 active sites. Leaking USTs and piping at nine former fuel dispensing facilities along the area known as Gasoline Alley have resulted in six petroleum contaminated sites (areas 1295, 1395, 1495, 1595, 1795, and 3805) with extensive groundwater plumes and soil contamination, as well as surface water and sediment contamination at three of the sites. Other active petroleum contaminated sites include Building P-2140 (an active Army and Air Force Exchange Service (AAFES) fueling station with groundwater, soil, surface water and sediment contamination), Building T1245 (a former fueling facility with soil and groundwater contamination), and Building T-91 (a maintenance shop with soil and groundwater contamination). In addition, there are two former landfills: the airfield sanitary landfill with potential metals and phenols impacts to groundwater and the old sanitary landfill (OSL) with metals, benzene, toluene, ethylbenzene and xylenes (BTEX), phenols, and other contamination of groundwater, surface water, sediment and soil.

The lead regulatory agency is the NYSDEC Division of Environmental Remediation.

FTD was issued a consent order for all IRP sites in February 2014.

Cleanup Exit Strategy

The installation has seven active sites currently receiving funding. Remedies were in place for all sites by the end of 2007, and all active sites are in the CMI(O) or LTM phases. The status of these sites is as follows:

- FTD-007 OSL: LTM
- FTD-008 Airfield sanitary landfill (ASL): LTM
- FTD-030A area 1295: Monitored natural attenuation (MNA), LTM
- FTD-030D area 1595: Operate aquifer air sparging (AAS)/soil vapor extraction (SVE)/bioventing systems, limited excavation of the creek if necessary, MNA, LTM
- FTD-030E area 1795: Operate AAS/SVE/bioventing system, MNA, LTM
- FTD-030F area 3805: Operate multi-phase extraction (MPE)/AAS systems at source area, MNA, LTM
- FTD-091 Bldg P-2140 USTs: Operate dual-phased extraction and AAS systems, MNA, LTM

IRP Previous Studies

Year	Title	Author	Date	
1977	Landfill Study No. 26-0011-78 Fort Drum, NY	USAEHA	SEP-1977	
1981	Installation Assessment of Ft. Drum	Chemical Systems	JUL-1981	
1982	FTD-93, Installation Restoration Program Phase I Records Search Hancock Field	Engineering Science	JUL-1982	
1983	Health Basic Groundwater Hydrology United States Geological Survey Waster-Supply Paper 2220	US Inter	JUN-1983	
1984	Solid Waste Disposal Study No. 38-26-0444-85 Landfill Site Selection Ft Drum NY	USAEHA	SEP-1984	
1985	Felts Mills Hydroelectric Project Development Plan & Draft Exhibit E-Environmental Report	Lake En	JAN-1985	
	The Echo I Experiment The Beginnings of Air Force Satellite Communications	Rome Air	OCT-1985	
	FTD -30-1595, Technical Concepts for Remediation of Gasoline Alley Contamination at the Fuel Dispensing Area 1595	Dames & Moore	NOV-1985	
	FTD -30, Remedial Investigation of Fort Drum, New York	Dames & Moore	DEC-1985	
1986	US Dept of the Interior Geological Survey Hydrogeology of Ft Drum Area Jeff, Lewis & St. Lawrence Counties	DoD	JAN-1986	
	Leaking Underground Storage Tank Phase II Report (LUST)	C & S Engineering	JUN-1986	
	Management of Leachate from Army Sanitary Landfills Technical Report N-86/19 July 1986 Sanitary Landfill Control	USACERL	JUL-1986	
	FTD -30-1595, Remedial Investigation of Fort Drum, New York	Dames & Moore	AUG-1986	
	Remedial Investigation of Ft. Drum Appendix F No AMXTH-AS-CR-85054	Dames & Moore	AUG-1986	
	FTD-030, Remedial Investigation of Fort Drum, New York	Dames & Moore	AUG-1986	
	FTD -30-1595, Remedial Investigation Report for Area 1595	Dames & Moore	AUG-1986	
	FTD-077, Hazardous Waste Study/Investigation of Soil Contamination at the Fire Training Pit and Building S-2005	USACE	AUG-1986	
	Hazardous Waste Study No. 37-26-0724-87 Investigation of Soil Contamination at the Fire Training Pit & Bldgs-2005	USAEHA	AUG-1986	
	Report on Third Phase Part 1 Groundwater Supply Investigation Infrastructure II Fort Drum, New York	Seelye	SEP-1986	
	Fort Drum Underground Fuel Storage Leak Testing RFP & Technical Specifications	C & S Engineering	DEC-1986	
	1987	FTD-7, Site Investigation Report Sanitary Landfill Area 4E North Central Fort Drum, New York (Project #228	Ebasco	FEB-1987

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1987	Title	Author	Date
	Mod #8 & 9)		
	USAEHA Hazardous Waste Consultation No 37-26-1673-88 Evaluation of Solid Waste Management Units Ft Drum, NY	USAEHA	JUL-1987
	SWMU, Interim Final Report Hazardous Waste Consultation Evaluation of Solid Waste Management Units	USAEC	JUL-1987
	Hazardous Waste Study/Investigation of Soil Contamination for Building S-2005	USAEC	SEP-1987
	Hazardous Waste Study No. 37-26-0121-88 Investigation of Soil Contamination At Bldg S-2005 & EOD Area Range 8	USAEHA	OCT-1987
	Modified Environmental Audit Protocol Environmental Self-Audit Program	DoD	NOV-1987
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	Environmental Operational Review No 32-24-7140-89, D, Oct-88, USAEC	USEPA	MAR-1988
	FTD -30-1595, Remedial Investigation/Feasibility Study Fuel Dispensing Site Specific Health & Safety Plan	OBG	DEC-1988
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	FTD -93, Installation Restoration Program Phase II Confirmation/Qualification Stage 2 Volume 2- Appendices	Science Applications International Corp	JUN-1989
	FTD -93, Installation Restoration Program Phase II, Confirmation/Qualification Stage 2 Volume I-Technical Report Hancock	CDM	JUN-1989
	FTD -30-WWII, Work Plan for Site Investigation WWII Landfill Final	CDM	SEP-1989
	FTD -72, Work Plan for Remedial Investigation NJANG Final	CDM	SEP-1989
	Soil Survey of Jefferson County City Maps Brown Accordion File	USAG	SEP-1989
	FTD -24, Monitoring Well Installation Plan for Field Activities at Fort Drum, New York	CDM	SEP-1989
	FTD -30, Monitoring Well Installation Plan for Field Activities at Fort Drum, New York	CDM	SEP-1989
	FTD -31, Monitoring Well Installation Plan for Field Activities at Fort Drum, New York	CDM	SEP-1989
	FTD -72, Monitoring Well Installation Plan for Field Activities at Fort Drum, New York	CDM	SEP-1989
	FTD -77, Monitoring Well Installation Plan for Field Activities at Fort Drum, New York	CDM	SEP-1989
	FTD -30-WWII, Monitoring Well Installation Plan for Field Activities at Fort Drum	CDM	SEP-1989
	FTD -77, Work Plan for RCRA Closure for Building S-2005	CDM	SEP-1989
	FTD -8, Work Plan for Records Review/Data Compilation Existing Sanitary Landfill	CDM	SEP-1989
	FTD -7, Work Plan for RCRA Facility Investigation Old Sanitary Landfill	CDM	SEP-1989
	Final Chemical Data Acquisition Plan Misc Military & Civil Hazardous Waste Cleanup Projects	CDM	OCT-1989
1990			

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	FTD -31, Site Investigation Report For Buildings T-91 & T-4002 Fort Drum, New York	CDM	SEP-1990
	FTD -76, Site Investigation Report For Buildings T-91 & T-4002 Fort Drum, New York	CDM	SEP-1990
	Confirmation Study of the Old Fire Training Pit at Fort Drum Phase 1	Radian	OCT-1990
	FTD -30-1795, World War II Landfill Site Investigation Report Volume I	CDM	NOV-1990
	FTD -30-3805, Shallow Soil Gas Investigation Tank Areas 1595 and 3805	Radian	NOV-1990
	FTD -30, Remedial Investigation Report Volume IV Gasoline Alley	CDM	NOV-1990
	FTD -30, Remedial Investigation Report for Gasoline Alley	CDM	NOV-1990
	FTD -30, Remedial Investigation Report for Gasoline Alley Volume II	CDM	NOV-1990
	FTD -30-WWII, Site Investigation Report WWII Landfill Final Volume I	CDM	NOV-1990
	FTD -30, Tracer Tight Leak Test of Twenty-Three Underground Storage Tanks Ft Drum NY	Tracer Re	NOV-1990
	FTD -87, Final Design 90% Chiller Replacement Specifications SAGE Complex	C & S Engineering	DEC-1990
	Installation Restoration & Hazardous Waste Control Technologies DoD	DoD	DEC-1990
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	FTD -72, Remedial Investigation Rpt NJANG Final Volume II Appendix G & H	CDM	JAN-1991
	FTD -72, Remedial Investigation Rpt NJANG Final Volume I	CDM	JAN-1991
	Preliminary Assessment Final	Advanced Science	JAN-1991
	FTD -30, Laboratory Report Monthly Monitoring of 24 Monitoring Wells Gasoline Alley 15 Documents	Adironda	JAN-1991
	FTD -87, Final Design 90% Boiler Replacement Specifications	C & S Engineering	MAR-1991
	6 NYCRR Part 360 Solid Waste Management Facilities Title 6 of the Official Compliance of Codes, Rules & Regulations	NYSDEC	MAY-1991
	FTD -87, Transmittal of Revised UST Closure Plan Relating to the SAGE Complex Syracuse, New York	CENAB	JUN-1991
	FTD -87, Cost Proposal Design of Underground Storage Tank (UST) Closure at Sage Facility, Syracuse, New York	Radian	AUG-1991
	FTD -22, DPM Scores/DPM Data Input Package Submitters for EOD Burn Sites	Earth Tech	SEP-1991
	FTD -24, DPM Scores/DPM Data Input Package Submitters for EOD Burn Sites	Earth Tech	SEP-1991
	FTD -30, DPM Scores/DPM Data Input Package Submitters for Gasoline Alley	Earth Tech	SEP-1991
	FTD -31, DPM Scores/DPM Data Input Package Submitters for Building T-91	Earth Tech	SEP-1991
	FTD -76, DPM Scores/DPM Data Input Package Submitters for Building T-4002	Earth Tech	SEP-1991
	FTD -77, Design Analysis & Cost Estimate for Site Closure Building S-2005 100% Submittal	CDM	SEP-1991

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	FTD -77, Specifications & Plans for Site Closure for Building S-2005, 100% Submittal	CDM	SEP-1991
	FTD - 24, Site Investigation Report EOD Burn Sites Ranges 17 & 35 Volume I,	CDM	OCT-1991
	FTD -28, Final Engineering Report Phase I Confirmation Study of the Old Fire Training Pit Volume I Text & Appendices	Radian	OCT-1991
	FTD -22, Site Investigation Report EOD Burn Sites Ranges 17 & 35 Volume	CDM	OCT-1991
	FTD -22, Site Investigation Report EOD Burn Sites Ranges 17 & 35 Volume II Appendices A-F	CDM	OCT-1991
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	FTD -7, Sampling Plan Addendum to Chemical Data Acquisition Plan Field Activities at Old Sanitary Landfill	CDM	MAR-1992
	FTD -7, Health and Safety Plan Addendum to Site Health and Safety Plan Field Activities at Old Sanitary Landfill	CDM	MAR-1992
	FTD -7, Monitoring Well Installation Plan for Field Activities at Old Sanitary Landfill,	CDM	MAR-1992
	FTD -7, Monitoring Well Installation Plan for Field Activities at Old Sanitary Landfill,	CDM	MAR-1992
	FTD -30, Summary of Findings and Recommendations	CDM	APR-1992
	FTD -83, Site Safety & Health Plan Phase I Confirmation Study of the Paint Dump Site	Radian	APR-1992
	FTD -83, Chemical Data Acquisition Plan & Sampling Plan Phase I Confirmation Study,	Radian	APR-1992
	Final Chemical Data Acquisition Plan for Preliminary Assessment/Site Investigation	Law Environmental	APR-1992
	Final Site Safety & Health Plan for Preliminary Assessment/Site Investigation	Law Environmental	APR-1992
	Final Chemical Data Acquisition Plan for Field Activities at Building T-91	CDM	JUL-1992
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	FTD -7, Sampling Plan Addendum & Monitoring Well Installation Maps Included	CDM	JUL-1992
	FTD -7, Sampling Plan Addendum to Chemical Data Acquisition Plan Field Activities at Old Sanitary Landfill	CDM	JUL-1992
	FTD -30-3805, Package Treatment System & Extraction Wells Design Analysis for Area 3805 Gasoline Alley	CDM	AUG-1992
	Stars Memo #1 Petroleum Contaminated Soil Guidance Policy	NYSDEC	AUG-1992
	FTD -93, Shallow Soil Gas and Groundwater Investigation Sage Facility Syracuse, New York	Tracer	NOV-1992
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	Chemical Data Acquisition Plan RCRA Facility Assessment (CDAP)	W. Clyde	JAN-1993
	FTD -91, Site Plan Drawing of P-2140 Showing UST Proposed Replacement to Occur in 1993	Unknown	JAN-1993

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FTD -87, Site Safety and Health Plan for SAGE Facility Investigation Syracuse, NY	Radian	FEB-1993
FTD -30-1595, Phase I-Interim Groundwater Remediation System Operation and Maintenance Manual	AWD Tech	APR-1993
FTD -7, Interim Corrective Measure Old Sanitary Landfill Ft Dr NY Final Conceptual ICMS Report	KCOE	APR-1993
FTD -30, Pre Design Briefing Plan for Removal of 21 UST's	EA	JUN-1993
FTD -7, Phase II RCRA Facility Investigation Report for Old Sanitary Landfill, Fort Drum, NY	CDM	JUL-1993
Site Investigation USCOE 1300 Area Warehouse Fort Drum, New York Appendices	Weston	JUL-1993
FTD -7, Phase II RCRA Facility Investigation Report for Old Sanitary Landfill (OSL), FTD, NY Volume 2, Appendices F and G	CDM	JUL-1993
FTD -8, Monitoring Well Installation Plan for Field Activities at Existing Landfill	CDM	AUG-1993
FTD -30, Construction Specifications for Removal of 22 USTs Gasoline Alley 100% Submittal	EA	AUG-1993
FTD -83, Final Engineering Rpt Phase I Confirmation Study of the Paint Dump Volume II Laboratory Analytical	Radian	OCT-1993
Site Health & Safety Plan Underground Tank Investigations	W. Clyde	OCT-1993
Site Health & Safety Plan RCRA Facility Assessment Final	W. Clyde	OCT-1993
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FTD -30, Design Analysis Report for Removal of 22 UST's Gasoline Alley	EA	NOV-1993
FTD -87, RCRA Facility Investigation Work Plan for Hancock Field Army Complex w/map (Includes Amendment August 1994	Radian	NOV-1993
FTD -91, Tank Closure Report Tank & Pipe Replacement Building P-2140 at First & Nash Street Fort Drum, New York	CMS Mechanical	DEC-1993
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FTD -87, RCRA Facility Investigation Work Plan for Hancock Field Army Complex Final Revisions Review	Radian	FEB-1994

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FTD -72, Interim Corrective Measures Study NJANG Final	CDM	FEB-1994
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FTD -30, Evaluation of Corrective Measures Technologies for Petroleum Contaminated Groundwater at Gasoline Alley (Pamphlet),	CDM	FEB-1994
FTD -74, Field Operations Plan Battery Shop P-44 RCRA Facility Assessment	CDM	FEB-1994
FTD -30, Preliminary Geologic/Hydrologic Investigation Report for Gasoline Alley, Fort Drum	CDM	MAR-1994
FTD -30, Removal of 22 UST's Gasoline Alley Contractor Quality Control Plan	National Environmental Services Corporation	MAR-1994
FTD -76, Sampling/Quality Management Plan for Field Activities	CDM	MAR-1994
FTD -30, Site Reference Report Screen Survey of Gasoline Alley	W. Clyde	APR-1994
FTD -30, Feasibility Study for Gasoline Alley, Remediation of Vadose Zone Soils at Fueling Areas	W. Clyde	MAY-1994
FTD -91, Work Plan for Field Investigation at Building T-2140 AAFES	EA	JUN-1994
FTD -72, PreFinal Supporting Design Documentation Settling Basin Documentation	W. Clyde	JUN-1994
FTD -72, PreFinal Construction Specifications Settling Basin Remediation NJANG	W. Clyde	JUN-1994
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FTD -72, Final Chemical Data Acquisition Plan Addendum NJANG	W. Clyde	JUN-1994
FTD -30, Site-specific Safety And Health Plan,	CDM	JUN-1994
FTD -30, Photo Survey of Fieldwork Gasoline Alley & New Jersey Army National Guard Facility	W. Clyde	JUN-1994
FTD -91, Site-specific Safety Health & Emergency Response Plan for Field Investigation Building T-2140 AAFES	EA	JUN-1994
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FTD -7, Specifications for Old Sanitary Landfill Interim Corrective Measure Volume II of II	CDM	JUN-1994
FTD -76, Pre-Design Investigation Report for Building T-4002 Fort Drum, New York	CDM	JUN-1994
FTD -30, Chemical Data Acquisition Plan Addendum Gasoline Alley	W. Clyde	JUN-1994
FTD -30, Contamination Assessment Report for Vadose Zone Soils at Gasoline Alley,	W. Clyde	JUN-1994
FTD -30, Final Addendum No 1 to the Final Health & Safety Plan Gasoline Alley & NJARNG June 1994	W. Clyde	JUN-1994
FTD -72, Final Addendum No 1 to the Final Health & Safety Plan Gasoline Alley & NJARNG June 1994	W. Clyde	JUN-1994
FTD -3, Sludge Drying Beds 100% Design Submittal	Wright	JUN-1994
FTD -90, Underground Investigations Report at Building T-2180 Final	Weston	JUL-1994
FTD -76, Post Sampling Submittal Work Assignment No 5 Fort Drum, NY Subsurface Soil Sampling, Building	MP	JUL-1994

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FTD -7, Interim Corrective Measure Design Report for the Old Sanitary Landfill, Fort Drum, NY	CDM	JUL-1994
FTD -7, Work Plan Old Sanitary Landfill	CDM	AUG-1994
FTD -30, Chemical Data Acquisition Plan Gasoline Alley	CDM	AUG-1994
FTD -3, Final Sample Results Sludge Drying Beds	Wright	AUG-1994
FTD -7, Interim Corrective Measure Construction Solicitation & Specifications w/SOW Inserted w/ Document	USACE	AUG-1994
FTD -7, Interim Corrective Measure Construction Solicitation and Specifications Old Sanitary Landfill Fort Drum	USACE	AUG-1994
FTD -7, Amendment/Modification to Old Sanitary Landfill Interim Corrective Measure Construction Solicitation & Specs	USACE	AUG-1994
FTD -7, Old Sanitary Landfill Interim Corrective Measure Construction Solicitation & Specifications	USACE	AUG-1994
Restoration Advisory Board (RAB) Implementation Guidelines	DoD	SEP-1994
FTD-7, Interim Corrective Measure Old Sanitary Landfill	CDM	SEP-1994
FTD -7, Maps Old Sanitary Landfill Corrective Measure Project Fence Details, MW/PZ Locations, Gas Vent, Sewer, Horizontal	CEMRK	OCT-1994
FTD -7, Maps Old Sanitary Landfill Interim Corrective Measures	USACE	OCT-1994
-91, Quality Control Summary Report for Site Investigation at Building T-2140 AAFES	EA	NOV-1994
FTD -91, Site Investigation at Building T-2140 AAFES	EA	NOV-1994
FTD -30, Thermal Treatment Plan Removal of 22 UST's Gasoline Alley	National Environmental	NOV-1994
FTD -7, Spill Prevention and Discharge Control Plan Interim Corrective Measure Old Sanitary Landfill	Tug Hill	NOV-1994
FTD -93, Remedial Investigation Storm Sewer Outfall for Surface Air Ground Environmental Plant Field Investigation Plan	MP	NOV-1994
FTD -31, Phase II Site Investigation Report for Building T-91 Final Volume II Appendices G and H	CDM	NOV-1994
FTD -7, Old Sanitary Landfill Interim Corrective Measure Quality Control Procedures of Tug Hill Construction	Tug Hill	NOV-1994
Environmental Compliance Assessment System Final Report	SAIC	DEC-1994
National Priorities List (NPL) Study Practical Guide to NPL Completion and Deletion Procedures	ENTECT	DEC-1994
FTD -7, Material Handling Plan Old Sanitary Landfill	CDM	DEC-1994
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1995	FTD -30-3805, Plume Maps for Area 3805 and Old Sanitary Landfill	EA	JAN-1995
	FTD -87, Map (As Built) - Tank Farm at SAGE Hancock Field Syracuse	CEMRK	JAN-1995
	FTD -30, Removal of 22 UST's Gasoline Alley, Fort Drum, NY, Transfer of Record Drawings	CENAN	JAN-1995
	Defense Environmental Restoration Program Installation Execution Plan	Fort Drum	JAN-1995
	FTD -7, Plume Maps for Area 3805 and Old Sanitary Landfill	EA	JAN-1995
	FTD -30-1895, Work Plan Soil Vapor Extraction Test Area 1895 Gasoline Alley	EA	FEB-1995
	FTD -87, Map Demolition Details Hancock Field SAGE Facility (UST Closure)	Radian	FEB-1995
	FTD -30-1595, 4th Quarter 1994 Operation & Maintenance Report Phase I Interim Groundwater Remediation Bldg 1599	Radian	MAR-1995
	FTD -8, Airfield Landfill Third Quarter Sampling Data (event February 1995)	CDM	MAR-1995
	FTD -76, Air Sampling Plan Building T-4002	CDM	APR-1995
	, FTD -30-1595, Groundwater Recovery System Specifications Technical Provisions for Building 1599	Radian	APR-1995
	FTD -93, Quality Control Summary Report Storm Sewer Outfall Hancock Field Army Complex	MP	APR-1995
	FTD -93, Storm Sewer Outfall Hancock Field Army Complex Final Remedial Investigation Report,	MP	APR-1995
	FTD -7, Phase II RCRA Facility Investigation Report for Old Sanitary Landfill Volume II Appendix F	CDM	MAY-1995
	FTD -91, Work Plan/Field Sampling & Analysis Plan Interim Pilot Study of Groundwater Extraction w/Free Product Recovery	EA	MAY-1995
	FTD -91, Safety Health & Emergency Response Plan Interim Pilot Study of Groundwater Extraction with Free Product AAFES	EA	MAY-1995
	FTD -91, Chemical Data Acquisition Plan for Interim Pilot Study AAFES	EA	MAY-1995
	FTD -22, Final Work Plan Volume I of III Field Investigation Plan Site Investigation Range 17 EOD Burn Site	MP	MAY-1995
	FTD -22, Final Work Plan Volume II of III Site Safety & Health Plan	MP	MAY-1995
	FTD -24, Final Work Plan Volume II of III Site Safety & Health Plan	MP	MAY-1995
	FTD -22, Fort Drum Range 17 EOD Burn Site Final Quality Assurance Project Plan	MP	MAY-1995
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	FTD -93, Conceptual Design Report Storm Sewer Outfall Hancock Field Army Complex	MP	MAY-1995
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FTD -31, Groundwater Sampling at T-91 Site Letter Report (event March 30, 1995),	Weston	MAY-1995
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FTD -7, Quarter 1 Groundwater Monitoring Data May-July 1995 Volume IIIA	Radian	MAY-1995
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FTD -30-3805, Quarter 1 Groundwater Monitoring Data May-July 1995 Volume IIIB	Radian	MAY-1995
FTD -30, Erosion/Sediment Control Plan Remediation of Petroleum-Contaminated Soil, Gas Alley	Radian	MAY-1995
Post Sampling Submittal Work Assignment No. 15 Ft Dr Miscellaneous Sampling	MP	MAY-1995
FTD -24, Final Work Plan Volume I of III Field Investigation Plan Site Investigation Range 35 EOD Burn Site	MP	MAY-1995
FTD -7, Old Sanitary Landfill Maps	EA	JUN-1995
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FTD -30, Gasoline Alley Quarterly Groundwater Monitoring Program Quarter I May & June 1995	Radian	JUN-1995
Hazardous Waste Management Plan Prepared for Public Works	Parsons	JUN-1995
FTD -8, Airfield Landfill Fourth Quarter Sampling Data (event May 3 & 4 1995)	CDM	JUN-1995
FTD -30, Final Report on Plume Reconnaissance Activities at Gasoline Alley	CDM	JUN-1995
FTD -87, Sampling & Analysis of SAGE Complex IDW (event April 25-27, 1995)	MP	JUN-1995
FTD -3, Closure Report for Sludge Drying Beds	Wright	JUN-1995
FTD -30, Project Plans for Remediation of Petroleum Contaminated Soil Vol. I, Vol. II, Vol. III, Vol. IV, Vol. V	DOW	JUN-1995
FTD -30, Work Plan Remediation of Petroleum Contaminated Soil Removal of Pipeline Sections Gasoline Alley	DOW	JUN-1995
FTD -7, First Quarterly Report Surface Water & Sediment Sampling Old Sanitary Landfill	EA	JUN-1995
FTD -87, Final Delivery Order SOW for the Removal UST 1-6, Small Pamphlet	USCOE	JUN-1995
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FTD -76, Replaced Remedial Action Contract Revised Cost Estimate for Remedial Action Building T-4002	R & R	JUL-1995
FTD -93, Sage Storm Sewer Outfall Remedial Design July 95 Maps/Drawings [in Large Envelope]	MP	JUL-1995
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study Gasoline Alley 31 May - 30 June 1995	EA	JUL-1995
FTD -89, Final Pilot Study Work Plan at Building T-1245 Fort Drum, NY,	Weston	AUG-1995
FTD -92, Final Site Investigation Work Plan at Building T-2195	Weston	AUG-1995
FTD -30, Summary Rpt Remediation of Petroleum Contaminated Soil	DOW	AUG-1995
FTD -7, Work Plan Quarterly Monitoring of Surface Water Sediment Old Sanitary Landfill	EA	AUG-1995
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study Gasoline Alley (event 5-7 July 95)	EA	AUG-1995
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FTD -30, Summary Report Remediation of Petroleum Contaminated Soil Removal of Pipeline Sections Gasoline Alley	DOW	AUG-1995
FTD -30-3805, Report of Geotechnical Investigations & Aquifer Pumping	USACE	AUG-1995
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FTD -30-3805, Monthly Progress Rpt Pilot Treatment System Study Rpt of Bail Down Test Performance Period 1-31 Aug 1995	EA	OCT-1995
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study Gasoline Alley (event 1-31 August 1995)	EA	OCT-1995
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Final Installation Restoration Program Quality Assurance Program Plan	MP	OCT-1995
FTD -93, Specifications for Remediation of Storm Sewer Outfall Final Design Phase Hancock Field Army Complex	M Hart	NOV-1995
FTD -93, Hancock Field Army Complex Cost Estimate for Remediation	MP	NOV-1995
FTD -93, HFAC Response to Comments on 95% Remedial Design & Interim Specs Submittal IDT Ctr. Multidiscipline for HTRW	MP	NOV-1995
FTD -91, Soil Safe Inc Drums from Well Development at P-2140	EA	NOV-1995
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FTD -31, Groundwater Sampling at T-91 (event Sept 26 & 27 1995)	Weston	NOV-1995
FTD -74, Building P-44 Quarterly Groundwater Sampling McLaren/Hart Project (10/95 event)	M Hart	NOV-1995
FTD -30-3805, Monthly Report of Progress Area 3805 (event 1-30 September 1995)	EA	NOV-1995
FTD -87, HFAC Responses comments 95% Remedial Dgn & Intm Specs Submtl, Multidiscipline Haz, Toxic & Radioactive Waste	MP	NOV-1995
FTD -7, Separate Phase Product Recovery Pilot Study & Plume Characterization Work Plan Letter Report	EA	NOV-1995
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FTD -91, Table 1 Attached w/maps Summary of Well Gauging Data Collected AAFES	EA	NOV-1995
Revised Well Inventory for Fort Drum	CDM	NOV-1995

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	FTD -30-1595, Final Report Quarter 1 - Quarter 3, 1995 Phase I Interim GW Remediation System Building 1599	Radian	NOV-1995
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	FTD -72, Soil Pile Sampling & Analysis at NJANG Site	MP	DEC-1995
	FTD -31, Groundwater Sampling at T-91 Site, Fort Drum	Weston	DEC-1995
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	FTD -30-3805, Draft CCAR Volume V Areas 1895, 1995, 3805 & OSL, Gas Alley, FTD, NY	EA	JAN-1996
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	FTD -30, Responses to Comments for Volumes I, II, III, IV and V Pre-Draft CCAR, Fort Drum, NY	EA	JAN-1996
	FTD -30, Response to Comments Pre/Draft Comprehensive Contaminant Assessment Report Gasoline Alley	EA	JAN-1996
	FTD -30-1995, Semiannual Discharge Report for Areas 1995 & 3805, Gasoline Alley Fort Drum, New York	EA	JAN-1996
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	FTD -30-1995, Monthly Progress Report Area 1995 Pilot Treatment Systems Study	EA	JAN-1996
	FTD -30-3805 , Monthly Progress Report Area 3805 Pilot Treatment Systems Study	EA	JAN-1996
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	FTD -30-3805, Semiannual Periodic Report & Monthly Report of Progress for Areas 1995 & 3805 Gasoline Alley, Fort Drum, NY	EA	JAN-1996
	FTD -93, Response to Comments & Addendum to Final Design for Remediation of HFAC, Syracuse NY	MP	JAN-1996
	FTD -30-3805, Monthly Progress Rpt Areas 1995-3805 Performance Period 1-30 Nov 95	EA	JAN-1996
	GIS, Fort Drum IRP GIS User Documentation Version 1.0	Radian	FEB-1996
	FTD -12, Response to USACE & Fort Drum Comments on Draft Work Plans for the 4 New SWMUs at Fort Drum, NY	MP	FEB-1996
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FTD -31, GW Sampling Letter Reports of the Resampling of Wells 1 & 2 for Semi-Volatile Compounds (event 6 Dec 1995)	Weston	FEB-1996
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FTD -7, Gasoline Alley Quarterly Groundwater Monitoring Program Quarter 1 Groundwater Monitoring Data Volume I of II	Radian	MAR-1996
FTD -30, Gasoline Alley Quarterly Groundwater Monitoring Program Quarter 1 Groundwater Monitoring Data Volume I of II	Radian	MAR-1996
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FTD -91, Letter Report Results of Baseline Groundwater Sampling Conducted 13-15 Feb 96 AAFES	EA	MAR-1996
FTD -89, Final Report UST Investigation at Building T-1245 Fort Drum NY	Weston	MAR-1996
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FTD -30-3805, 3805-RW3 Treatment System Submittal Register 04/96 Spec Sect 13906 Temp Package GW Treatment System	Carbonair	APR-1996
FTD -91, As Built Drawings for the Interim Pilot Study Treatment System AAFES Svc Station Building P-2140, Map, F	EA	APR-1996
FTD -30-3805, Groundwater/Product Pumping System O&M Manual for Radian Intl, Ft Drum, NY Area 3805 Interim Remediation (RW3)	ERS	APR-1996
FTD -87, Tank Closure Report Final UST 1-6 Removal Hancock Field Army Complex	WasteTro	APR-1996
FTD -30-1395, General Work Plan Remediation of Petroleum Contaminated Soil Vapor Monitoring Point & Vapor Extraction Well Install	DOW	APR-1996
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FTD -7, Work Plan for the Old Sanitary Landfill Leachate & Drum Characterization Gasoline Alley, Fort Drum, NY	EA	MAY-1996
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FTD -30-3805, 3805-RW3 Treatment System O & M Manual Part 1 of 2 7/96 Groundwater Remediation System Large White Binder	Carbonair	JUL-1996
FTD -30-3805, 3805-RW3 Treatment System O & M Manual Part 2 of 2 7/96 G-37 Stat Sump Pressure Transmitter (PT-700)	Carbonair	JUL-1996
FTD -30-3805, Area 3805 RW3 System Radian International LLC sampled 12 & 13 July 1996	FLI	JUL-1996
FTD -30-3805, Area 3805 RW3 System Radian International LLC sampled 30 July 1996	FLI	JUL-1996
FTD -30-1595, Final General Work Plan Soil Borings and Sample Collection Golden Pond	DOW	JUL-1996
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FTD -30-3805, Gasoline Alley Quarterly Groundwater Monitoring Program Quarter 2 Groundwater Monitoring Data Volume I of II	Radian	JUL-1996
FTD -30-3805, Technical Support for Scope of Services Groundwater Modeling & Feasibility Study Area 3805 Ltr Rpt	USCOE	JUL-1996
FTD -30-3805, Scope of Services Modification and OSL Pilot Interim Remedial Measures Letter Report	USCOE	JUL-1996
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Performance Period 1-30 June 1996	EA	JUL-1996
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study Performance Period 1-30 May 1996	EA	JUL-1996
AMSA #9, Final Remedial Design Investigation Report Volume II of III	MP	JUL-1996
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Fifth Quarter Sampling Data Airfield Landfill Letter Report (event June 1996),	CDM	AUG-1996
FTD -30-3805, As Built Drawings 1 set 2 sheets/3805-RW3 Treatment System	DOW	AUG-1996
FTD -30, Fall 96 Quarterly GW Monitoring Program & Natural Attenuation Parameter Sampling Gas Alley Ft Dr NY	EA	AUG-1996
FTD -7, First Quarter Stream Gauging Report Old Sanitary Landfill Creek (event 11 July 96)	EA	AUG-1996
FTD -30-3805, Technical Support for Scope of Services Modification Vacuum Enhanced Product Studies Bioslurping Pilot Studies	USCOE	AUG-1996
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study Letter Report Performance Period 1-31 July 1996	EA	AUG-1996
FTD -7, First Quarter Seep Letter Report Old Sanitary Landfill Letter Report (event 2 July 1996)	EA	SEP-1996
FTD -30-3805, Monitoring & Recovery Well Installation Area 3805 Letter Report	EA	SEP-1996
FTD -72, New Jersey Army National Guard Quarterly Groundwater Monitoring Quarter 8	Geo Inc.	SEP-1996
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FTD -8, Responses to Comments on the Draft Post-Closure O&M Plan, Airfield Sanitary Landfill, FTD, NY	CDM	SEP-1996
FTD -30-3805, Area 3805 RW3 System Radian International LLC	Radian	SEP-1996
FTD -74, Final Safety Health & Emergency Response Plan for Remedial Investigation at Battery Shop Bldg P-44	EA	SEP-1996
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study Performance Period 1-31 August 1996	EA	SEP-1996
FTD -12, Final Field Investigation Plan (FIP) Sampling & Analysis Service in Support of Preliminary Assessment Scoring	MP	SEP-1996
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FTD -30-1595, Summary Report Preremedial Activities Soil Borings & Sample Collection Gas Alley Golden Pond	DOW	OCT-1996
FTD -30-3805, Monthly Report of Progress Area 3805 Pilot Treatment System Study, Gasoline Alley Performance Period 1-30 Sep 96	EA	OCT-1996
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FTD -30-3805, Quarterly Discharge Report for Area 3805 (event 1-July to 30-Sept 96)	EA	OCT-1996
FTD -30, Site Photographs Gasoline Alley Letter Report		OCT-1996
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FTD -93, Work Plan for Remediation of Storm Sewer Outfall Hancock Field Army Complex Syracuse, NY Revised	Enviro	NOV-1996
FTD -72, Closure Report NJNG Settling Pond Remediation Contract #DACA31-94-C-0174	GAI Inc	NOV-1996
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FTD -30-1595, Final Monitoring Well & Piezometer Installation Report, Area 1595 Gasoline Alley	EA	JAN-1997
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FTD -30-1595, General Work Plan Surface Water Impoundment Restorations & Installations of Flow Measurement Devices	EA	JAN-1997
FTD -30-1595, Summary Report Preremedial Activities Soil Borings & Sample Collection Gasoline Alley Area 1595 Golden Pond	DOW	JAN-1997
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FTD -30-1495, Bristol Babcock Inc Equipment Manual Radio Telemetry Radian International LLC O & M Manual Volume 5	Bristol Babcock	JAN-1997
FTD -30-1395, O & M Maintenance Manual for Radian International LLC Fort Drum Military Reservation Volume 3	Global Tec	JAN-1997
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FTD -76, Safety & Health Phase Out Report Remedial Action Building T-4002 Volume II	Dames & Moore	JAN-1997
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FTD -30-1395, Fort Drum Locations 1395 and 1495 Operations and Maintenance Manual SVE/AAS Systems Volume 2 of 6	Radian	JAN-1997
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FTD -30-1495, Bristol Babcock Distributed Process Controllers DPC 3330 for Radian International O&M Manual Volume 6 of 6	Radian	JAN-1997
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FTD -30-3805, Report of Progress Area 3805 Pilot Treatment System Study Performance Period 1 Nov - 31 Dec 96	EA	FEB-1997
FTD -30-1595, General Work Plan Surface Water Impoundment Restorations & Installations of Flow Measurement Devices	DOW	FEB-1997
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FTD -76, Contract for Demolition and Contaminated Soil Removal for Building T-4002	USCOE	FEB-1997
FTD -30-1395, Volume I of II General Work Plan Bioventing & SVE System Installation Areas 1395 & 1495 Gas A. FTD NY	Radian	FEB-1997
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FTD -30-1595, Revised Final Report Building 1599 Engineering Evaluation Area 1595	EA	MAR-1997

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FTD -76, Freedom of Information Act Documents Requested on 5/22/97 (copies, large envelope)		MAR-1997
FTD -76, 4002 Confirmation Soil Sampling Pesticides/Herbicides 1st Round Oct 1996; Chemical Quality Summary Rpt; etc (box)	R & R	MAR-1997
FTD -30-1795, Final 1996 Data Gap Study Aquifer Pumping Test Report Area 1795	EA	MAR-1997
FTD -30-3805, Report of Progress Area 3805 Pilot Treatment System Study Performance Period 1 January - 31 March 1997	EA	APR-1997
FTD -31, Letter Report Groundwater Sampling at T-91 Site, Results of Round 8 (event March 19, 1997)	Weston	APR-1997
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FTD -7, Final Work Plan Addendum Separate-Phase Product Plume Delineation Study Area 3805/Old Sanitary Landfill	EA	JUN-1997
FTD -30-3805, Final Work Plan Addendum Separate-Phase Product Plume Delineation Study Area 3805/Old Sanitary Landfill	EA	JUN-1997
FTD -30-3805, Operation & Maintenance Summary Report 12Jul96-15Sep96 Package Treatment System Area 3805-RW3	Radian	JUN-1997
FTD -30-3805, Monthly Operating Report, Area 3805 RW-3 (GW treatment system) June 1997	Radian	JUN-1997
FTD -30-1795, Final Work Plan Aquifer Air Sparging/Soil Vapor Extraction Pilot Study Area 1795 Gasoline Alley Ft Dr NY	EA	JUL-1997
FTD -30-1795, Final Work Plan Bioslurping Pilot Study Areas 1795 & 3805 Gasoline Alley Ft Dr NY	EA	JUL-1997
FTD -30-3805, Final Work Plan Bioslurping Pilot Study Areas 1795 & 3805 Gasoline Alley Ft Dr NY	EA	JUL-1997
, FTD -30-3805, Operation & Maintenance Summary Rpt Package Treatment System 12Jul-15Sep96	Radian	JUL-1997
FTD -30-3805, Monthly Operating Report, Area 3805 RW-3 (pump & treat system) July 1997	Radian	JUL-1997
FTD -30-1795, Quarterly Report of Progress Area 1795 Pilot Treatment System Study April-June 97 Gasoline Alley	EA	AUG-1997
FTD -30-3805, Report of Progress Area 3805 Pilot Treatment System Study April-June1997 Gasoline Alley	EA	AUG-1997
FTD -91, Quarterly Progress Rpt Operations, Maintenance, Sampling 1April-30June97 Building P-2140	EA	AUG-1997
FTD -7, Stream Gauging Program Report, OSL Creek, Gasoline Alley, Fort Drum, New York (event July 96 to April 97)	EA	AUG-1997
FTD -30-3805, Monthly Operating Report, Area 3805 RW-3 (GW treatment system), August, 1997	Radian	AUG-1997
FTD -30-1595, Quarterly Report of O&M Technical Support-Building 1599 Treatment System, April-June 1997, Gas Alley, FTD	EA	AUG-1997
FTD -30-1795, Final Stream Gauging Program Report July 1996 April 1997 Area 1795 Creek Gasoline Alley Ft Dr NY	EA	AUG-1997
FTD -30-1595, Final Stream Gauging Program Report July 1996 March 1997 Area 1595 Creek Gasoline Alley Ft Dr NY	EA	AUG-1997
FTD -87, Completion of Monitoring Well Decommissioning, Hancock Field Army Complex, Syracuse, NY	Radian	SEP-1997
FTD -30, First Quarter 1997 Groundwater Sampling Results, Gasoline Alley, Fort Drum, FTD, NY	MP	SEP-1997
FTD -8, Post-Closure Operations & Maintenance Plan for Airfield Sanitary Landfill, Fort Drum, New York	CDM	SEP-1997

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Title	Author	Date
FTD -8, Airfield Sanitary Landfill 100% Specifications Cover Improvements	CDM	SEP-1997
FTD -8, Annual GW Sampling Data Airfield Sanitary Landfill Appendix E of report 887 (for event 8/97) (Large Envelope)	CDM	SEP-1997
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 event August 28 - Sept 25 1997	Radian	SEP-1997
FTD -7, General Work Plan Drum Removal & Slope Stabilization Old Sanitary Landfill, Ft. Drum, NY (& HASP Addendum)	Radian	SEP-1997
FTD -8, Airfield Sanitary Landfill Design Analysis 100% Submittal Cover Improvements	CDM	SEP-1997
FTD -8, Airfield Sanitary Landfill Cost Estimate 100% Submittal Cover Improvements	CDM	SEP-1997
FTD -8, Airfield Sanitary Landfill 100% Specs Cover Improvements Drawings Existing Site Layout & Erosion Control Plan	CDM	SEP-1997
FTD -7, Groundwater Modeling Report Areas 1795 and 3805/Old Sanitary Landfill Fort Drum, NY	WES	OCT-1997
FTD -30-1795, Groundwater Modeling Report Areas 1795 and 3805/Old Sanitary Landfill Fort Drum, NY	WES	OCT-1997
FTD -30-3805, Groundwater Modeling Report Areas 1795 and 3805/Old Sanitary Landfill Fort Drum, NY	WES	OCT-1997
FTD -7, Third Semi Annual Surface Water & Sediment Sampling Results Old Sanitary Landfill (July 29 & 31, 97)	MP	OCT-1997
FTD -8, Annual Sampling Data, Airfield Sanitary Landfill (August 1997 event)	CDM	OCT-1997
FTD -30-1795, Final Second Semi Annual Surface Water & Sediment Sampling Report Area 1795 Creek Gasoline Alley	EA	OCT-1997
FTD -30-1795, Final Well Monitoring Program Report Area 1795 Gasoline Alley event April 96 - March 97	EA	OCT-1997
FTD -30-1395, Monthly Report of Treatment System Operations, FTD, Gasoline Alley, Areas 1395 & 1495 (for 9/24-10/2)	Radian	OCT-1997
FTD -30-1495, Monthly Report of Treatment System Operations, FTD, Gasoline Alley, Areas 1395 & 1495 (for 9/24-10/2)	Radian	OCT-1997
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 October 1997	Radian	OCT-1997
Public Involvement and Response Plan (PIRP) for Installation Restoration Program Activities at Fort Drum, NY	WC	OCT-1997
FTD -30-1795, Quarterly Report of Progress Area 1795 Pilot Treatment System Study July to September 1997 Gasoline Alley Ft Dr NY	EA	OCT-1997
FTD -30-1595, Final Second Semi Annual Surface Water Sampling Report Area 1595 Creek Gasoline Alley	EA	OCT-1997
FTD -30-3805, Report of Progress Area 3805 Pilot Treatment System Study event July-Sept 97 Gasoline Alley	EA	NOV-1997
FTD -91, Quarterly Report of Progress Building P-2140 Interim Treatment System Pilot Study 1 July to 30 Sept	EA	NOV-1997

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Title	Author	Date
97		
FTD -7, Final Quarterly Seep Monitoring Program Report Old Sanitary Landfill Gas Alley, Ft Dr NY	EA	NOV-1997
FTD -72, Quarterly Groundwater Monitoring Program Report Sept 97 Sampling Event NJARNG	EA	NOV-1997
FTD -30-1595, Final Stream Gauging Report Aug 97 Area 1595 Gasoline Alley Ft Dr NY,	EA	NOV-1997
FTD -30-1595, Final Report Building 1599 Treatment System Upgrades Area 1595 Gasoline Alley Ft Dr NY	EA	NOV-1997
FTD -30-1595, Quarterly Report of O & M Technical Support Building 1599 Treatment System July-October 1997, Gas Alley Ft Dr	EA	NOV-1997
FTD -30-3805, Monthly Operating Report, Area 3805 RW-3, November 1997	Radian	NOV-1997
FTD -93, As Builts for Sage Storm Sewer Outfall RA Completed 1997	EnviroCon	NOV-1997
FTD -74, Decommissioning of Monitoring Wells P44-001 and P44-002 Battery Shop Building P-44, FDMR, Fort Drum, NY	EA	DEC-1997
FTD -74, Decommissioning of Monitoring Wells P44-001 and P44-002 Battery Shop Building P-44, FDMR, Fort Drum, NY	EA	DEC-1997
FTD -74, Field Investigation & Remedial Action Report Battery Shop Building P-44	EA	DEC-1997
FTD -30, Second Quarter 1997 Groundwater Sampling Results Gasoline Alley, Fort Drum, New York	MP	DEC-1997
1997 GIS Database Update Fort Drum, NY w/data disk	Radian	DEC-1997
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 December 1997	Radian	DEC-1997

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FTD -30-1595, Summary of Activities December 1997 Operation & Maintenance Technical Support Building 1599	EA	JAN-1998
FTD -91, Performance Evaluation Rpt. GW Extract. & Treat. & FP Recovery Sys., Bldg. P-2140, March 1996 - March 1997	EA	JAN-1998
FTD -30-3805, Quarterly Report of Progress Area 3805 Pilot Treatment System Study October-December 97 Gas Alley	EA	JAN-1998
FTD -30-1595, Summary of Activities January 1998 Operation & Maintenance Technical Support Building 1599	EA	JAN-1998
FTD -30-1795, Quarterly Report of Progress Area 1795 Pilot Treatment System Study October-December 97 Gas Alley	EA	JAN-1998
FTD -72, Quarterly Groundwater Monitoring Program Report December 1997 Sampling Event NJANG Facility	EA	JAN-1998
, FTD -91, Quarterly Rpt of Progress Building P-2140 Interim Treatment Sys Pilot Study Ft Dr NY(PP: 1 Oct - 31 Dec 97)	EA	JAN-1998
FTD -8, Maps for Final Specifications Airfield Sanitary Landfill Cover Improvements	CDM	JAN-1998
FTD -8, Final Specifications Airfield Sanitary Landfill	CDM	JAN-1998

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Title	Author	Date
Cover Improvements		
FTD -8, Final Design Analysis Report Airfield Sanitary Landfill Cover Improvements	CDM	JAN-1998
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 January 1998	Radian	JAN-1998
FTD -8, Revised drawing G1 for CDM's Final Design for ASL Cover Improvements	CDM	JAN-1998
FTD -30-1395, O & M Maintenance Plan Bioventing/Soil Vapor Extraction Treatment Systems, Areas 1395 & 1495, Volume 1	Radian	FEB-1998
FTD -30-1495, O & M Maintenance Plan Bioventing/Soil Vapor Extraction Treatment Systems, Areas 1395 & 1495, Volume 1	Radian	FEB-1998
FTD -30-1395, Results of Constant Rate and In Situ Respiration Tests Gasoline Alley Areas 1395 & 1495 Fort Drum NY	Radian	FEB-1998
FTD -30-1495, Results of Constant Rate and In Situ Respiration Tests Gasoline Alley Areas 1395 & 1495 Fort Drum NY	Radian	FEB-1998
FTD -30-1595, Summary of Activities February 1998 Operation and Maintenance Technical Support Bldg 1599, Ft Dr, NY	EA	FEB-1998
FTD -76, Fourth Quarter Sampling Data Building T-4002 Fort Drum, NY (event 20 Nov 97)	CDM	FEB-1998
FTD -30-3805, Recovery Well and Monitoring Well Installation Summaries for 1997 Field Season Area 3805 Gasoline Alley	EA	FEB-1998
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 February 1998	Radian	FEB-1998
FTD -30-3805, Monthly Operating Report, Area 3805 RW-3, March 1998	Radian	MAR-1998
FTD -30-1595, Summary of Operation and Maintenance Technical Support Building 1599, Fort Drum, NY (event January-March 1998)	EA	MAR-1998
FTD -93, Storm Sewer Outfall Remediation Hancock Field Army Complex Syracuse, NY Completion of Work	USCOE	MAR-1998
FTD -30-1795, Aquifer Air Sparging/Soil Vapor Extraction Pilot Study Report Area 1795 Gasoline Alley, Fort Drum, NY	EA	APR-1998
FTD -30-3805, Quarterly Report of Progress Area 3805 Pilot Treatment System Study January-March 98 Gasoline Alley	EA	APR-1998
FTD -30-1595, Summary of Activities April 1998 Operation and Maintenance Technical Support Building 1599 Ft Dr NY	EA	APR-1998
FTD -72, Quarterly GW Monitoring Program Report, March 1998 Sampling Event, New Jersey Army National Guard	EA	APR-1998
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 April 1998	Radian	APR-1998
FTD -30-1595, Summary of Activities May 1998 Operation & Maintenance Technical Support Building 1599, Fort Drum, NY	EA	MAY-1998
FTD -76, Fifth Quarter Groundwater Sampling Data	CDM	MAY-1998

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Title	Author	Date
Building T-4002 Fort Drum, New York		
FTD -30-1595, Gasoline Alley, Fort Drum Bioremediation Evaluation Area 1595 Phase 1 & Phase 2	WES	MAY-1998
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 May 1998	Radian	MAY-1998
FTD -30-1595, Quarterly Report of O & M Technical Support, April June-1998, Building 1599 Treatment System, Gas Alley	EA	JUN-1998
FTD -22, Groundwater Monitoring at Explosive Ordnance Disposal (EOD) Burn Sites Ranges 17 & 35 Ft Dr NY	MP	JUN-1998
FTD -24, Groundwater Monitoring at Explosive Ordnance Disposal (EOD) Burn Sites Ranges 17 & 35 Ft Dr NY	MP	JUN-1998
FTD -30-1795, Gasoline Alley, Fort Drum Bioremediation Evaluation Area 1795 Phase I & Phase II	WES	JUN-1998
New Version of GIS/Access databases on CD-ROM (includes 1 CD-handbook, IRPMVAIS, validvals)	Radian	JUN-1998
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 July 1998	Radian	JUN-1998
FTD -30, First Semiannual 1998 Groundwater Sampling Event Results Gasoline Alley Fort Drum, NY (w/1-disk)	MP	JUL-1998
FTD - 91, Quarterly Report of Progress-Bldg P-2140 Interim Treatment System Pilot Study FTD NY (pp 1 April-30 June 1998)	EA	JUL-1998
FTD -30-1595, Summary of Activities - July 1998 O&M Technical Support, Building 1599, Fort Drum, NY	EA	JUL-1998
FTD -31, Groundwater Sampling at Building T-91, Fort Drum, NY Round 9 Results (April 1998),	Weston	JUL-1998
FTD -7, Summary of Surface Water and Sediment Sampling Results, OSL, FTD, NY (4 events: 7/96-6/98)	MP	JUL-1998
FTD -30-3805, Monthly Operating Report Area 3805 RW-3 June 1998	Radian	JUL-1998
FTD -8, ASL Cover Improvement Original Ground Topography (Drawing)	Thew	JUL-1998
Monitoring Well Abandonment Activities at Fort Drum, New York (10 wells, base-wide, July 1998 event)	CDM	AUG-1998
FTD -30-3805, Quarterly Report of Progress Area 3805 Pilot Treatment System Study, Apr-Jun 1998 Gas. Alley	EA	AUG-1998
FTD -8, ASL Cover Improvement Top of Sand Topography (Drawing)	Thew	AUG-1998
FTD -30-1395, Gas Alley Soil Remediation Final Work Plan for In Situ Respiration Test Areas 1395 & 1495	Radian	SEP-1998
FTD -30-1495, Gas Alley Soil Remediation Final Work Plan for In Situ Respiration Test Areas 1395 & 1495	Radian	SEP-1998
FTD -8, Airfield Sanitary Landfill Site Visit	CDM	SEP-1998
FTD -8, Annual Sampling (groundwater) Data July 1998	CDM	SEP-1998
FTD -7, Data Consolidation and Evaluation Conceptual Site Model Development Gasoline Alley and Old	MP	SEP-1998

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Title	Author	Date
Sanitary Landfill		
FTD -30, Data Consolidation and Evaluation Conceptual Site Model Development Gasoline Alley and Old Sanitary Landfill	MP	SEP-1998
FTD -8, Safety and Health Phase-out Report (Airfield Sanitary Landfill Improvements at Fort Drum, NY)	ECG Indus	SEP-1998
FTD -91, Performance Evaluation Rpt, GW Extraction & Treatment & Free-Product Recovery Sys Bldg P-2140, 4/97-3/98	EA	OCT-1998
FTD -30-1595, Groundwater Modeling Study Area 1595 Gasoline Alley Fort Drum, New York	MP	OCT-1998
FTD -30-1795, Bioslurping Study Report Areas 1795 & 3805 Gasoline Alley Fort Drum, New York	EA	OCT-1998
FTD -30-1795, Final Comprehensive Contaminant Assessment Report Volume IV Area 1795/WWII Landfill Gasoline Alley Ft Dr NY	EA	OCT-1998
Final Comprehensive Contaminant Assessment Report Volume IV Area 1795/WWII Landfill Gasoline Alley Ft Dr NY	EA	OCT-1998
FTD -30-1595, Final Comprehensive Contaminant Assessment Report Volume III Area 1595 Gasoline Alley Fort Drum	EA	OCT-1998
FTD -7, Old Sanitary Landfill Wetlands Evaluation Technique (WET) Baseline Conditions Assessment & Results Ft Dr NY	MP	OCT-1998
FTD -30-1395, Gasoline Alley Soil Remediation Quarterly Update of Treatment System Operations Areas 1395 & 1495	Radian	OCT-1998
FTD -30-1495, Gasoline Alley Soil Remediation Quarterly Update of Treatment System Operations Areas 1395 & 1495	Radian	OCT-1998
FTD -22, Groundwater Monitoring at EOD Burn Sites Ranges 17 & 35 Fort Drum, NY w/CD	MP	OCT-1998
FTD -24, Groundwater Monitoring at EOD Burn Sites Ranges 17 & 35 Fort Drum, NY w/CD	MP	OCT-1998
FTD -8, Final As-built Survey Airfield Sanitary Landfill Fort Drum Military Reservation Tug Hill Construction, Inc. (Drawing)	Thew	OCT-1998
FTD -91, Quarterly Report of Progress Building P-2140 Interim Treatment System Pilot Study Fort Drum, New York	EA	NOV-1998
FTD -112, General Work Plan Range 17 POL Spill Fort Drum, New York	Radian	NOV-1998
FTD -30-1595, Annual Stream Gauging & SW/Sediment Sampling Report Area 1595 Creek Gasoline Alley FTD NY	EA	NOV-1998
FTD -30-1795, Annual Stream Gauging & SW/Sediment Sampling Report Area 1795 Creek Gasoline Alley FTD NY	EA	NOV-1998
FTD -30-3805, Area 3805 Well Installation Report-October 1998 Gasoline Alley Fort Drum, New York	EA	DEC-1998
FTD -30-3805, Comprehensive Contaminant Assessment Volume V Areas 1895, 1995, 3805 & OSL Gasoline Alley Ft Dr NY	EA	DEC-1998

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1998	Title	Author	Date
	FTD -30-1795, Work Plan Bioslurping Pilot Study Area 1795, Gasoline Alley Fort Drum, New York	EA	DEC-1998
	FTD -30-3805, Quarterly Report of Progress Area 3805 Pilot Treatment System Study July-Sept 1998 Gasoline Alley Fort Drum, NY	EA	DEC-1998
1999	FTD -30-3805, Summary of Area 3805 Treatment System Upgrades August-September 1998, Gasoline Alley, FT DR, NY	EA	JAN-1999
	FTD -8, ASL Cover Improvements Project Final As Built Record Drawings Disk	EnviroCon	JAN-1999
	FTD -91, Quarterly Report of Progress Building P-2140 Interim Treatment System Pilot Study Fort Drum, New York	EA	JAN-1999
	FTD -30-3805, Quarterly Report of Progress Area 3805 Pilot Treatment System Study October - December 1998 Gas Alley Ft Dr NY	EA	FEB-1999
	FTD -30, Second Semi Annual 1998 Groundwater Sampling Event Results Gasoline Alley Fort Drum, New York	MP	FEB-1999
	FTD -7, Response to Comments on Work Plan for Construction of Enhanced Wetlands Sys & Landfill Surface Drain OSL	MP	MAR-1999
	FTD -7, Risk Assessment Work Plan Fort Drum NY Gasoline Alley, WWII Landfill, Old Sanitary Landfill	MP	MAR-1999
	FTD -30, Risk Assessment Work Plan Fort Drum NY Gasoline Alley, WWII Landfill, Old Sanitary Landfill	MP	MAR-1999
	FTD -30-WWII, Risk Assessment Work Plan Fort Drum NY Gasoline Alley, WWII Landfill, Old Sanitary Landfill	MP	MAR-1999
	FTD -7, OSL Ft Dr NY Wetlands Evaluation Technique (WET) Comparative Summary Assessment and Results	MP	MAR-1999
	FTD -7, OSL, FTD, NY Final Work Plan for Construction of Enhanced Wetlands System and Landfill Drainage Features	MP	MAR-1999
	FTD -7, OSL, FTD, NY Enhanced Wetlands System and Landfill Drainage Features (Drawings; 12 sheets)	MP	MAR-1999
	FTD -7, Final Cost Estimate Enhanced Wetlands System & Landfill Surface Drainage Features Old Sanitary Landfill, FTD, NY	MP	APR-1999
	Data Consolidation and Evaluation Conceptual Site Model Development - Phase II Sites	MP	APR-1999
	FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY (1 Jan - 31 Mar 99)	EA	APR-1999
	FTD -30, Fort Drum, Gasoline Alley Groundwater Sampling Final Work Plan Addendum	MP	APR-1999
	FTD -89, UVB Pilot Study Report Building T-1245 Fort Drum, NY	Weston	APR-1999
	FTD -8, Airfield Sanitary Landfill Remedial Action Implementation Report	ECG Indus	APR-1999
	FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study	EA	MAY-1999
	FTD -31, Groundwater Sampling at Building T-91, Fort Drum, NY Round 10 Results (March 1999)	Weston	MAY-1999

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Title	Author	Date
FTD -30, Area 1395 and 1495 Soil Boring Recommendation, Gasoline Alley, Fort Drum, New York	EA	MAY-1999
FTD -30-1595, Final Interim Remedial Measure Enhancement Design Area 1595 Gasoline Alley, Fort Drum, NY	EA	MAY-1999
FTD -30-1595, Final Interim Remedial Measure Enhancement Design Area 1595 Gasoline Alley, Fort Drum, NY (Drawings)	EA	MAY-1999
FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Study, Jan-Mar99, Gasoline Alley, FTD, NY	EA	MAY-1999
FTD -91, Final Remedial Investigation Data Gap Study AAFES Service Station, Building P-2140, FTD, NY	EA	JUN-1999
FTD -30, First Semiannual 1999 Groundwater Sampling Event Results - Gasoline Alley, FTD, NY	MP	JUL-1999
FTD -30-1595, Technical approach for Area 1595 Focused Feasibility Study, Gasoline Alley	EA	JUL-1999
FTD -7, Response to comments on draft work plan for OSL, 1595,1795 Surface Water and Sediment Monitoring	MP	JUL-1999
FTD -30, Response to comments on draft work plan for OSL, 1595,1795 Surface Water and Sediment Monitoring	MP	JUL-1999
FTD -91, Remedial Investigation Data Gap Study, AAFES Gas Service Station, Building P-2140	EA	JUL-1999
FTD -91, Technical Proposal for a revised groundwater monitoring program, Building P-2140	EA	JUL-1999
FTD -30, Summary of O&M Technical Support Bldg.1599, Ft Dr, NY (Performance Period April - June 99)	EA	JUL-1999
FTD -30-1795, Final Area 1795 Bioslurping Pilot Study Installation and Startup Report Gasoline Alley, FTD, NY	EA	JUL-1999
FTD -30-1795, Final Area 1795 Bioslurping System Operation and Maintenance Manual Gasoline Alley, FTD, NY	EA	JUL-1999
FTD -112, Oxygen Releasing Compound (ORC) Application at the Range 17 Spill Site, FTD, NY	MP	JUL-1999
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY (1 Apr - 30 Jun 99)	EA	JUL-1999
FTD -7, Fort Drum Surface Water & Sediment Monitoring Program Final Work Plan Addendum (OSL, Areas 1595, 1795)	MP	JUL-1999
FTD -30-1595, Fort Drum Surface Water & Sediment Monitoring Program Final Work Plan Addendum (OSL, Areas 1595, 1795)	MP	JUL-1999
FTD -30-1795, Fort Drum Surface Water & Sediment Monitoring Program Final Work Plan Addendum (OSL, Areas 1595, 1795)	MP	JUL-1999
FTD -91, Extraction Well Cleaning Interim Pilot Study Groundwater Pump & Treat System, Bldg P-2140, FTD, NY	EA	JUL-1999
FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Study, Apr - Jun 99, Gasoline Alley, FTD, NY	EA	JUL-1999

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Title	Author	Date
FTD -30-1795, Final Work Plan Data Gap Study, Separate-Phase Product Plume Delineation Area 1795 Gasoline Alley, FTD, NY	EA	JUL-1999
FTD -30, Final Work Plan Remedial Investigation DGS Source Area Investigations Areas 1595, 1795, 1895, 1995, 3805 GA, FTD	EA	JUL-1999
FTD -89, Final Work Plan Remedial Investigation Data Gap Study Bldg T-1245, FTD, NY	EA	JUL-1999
FTD -8, Final Work plan Addendum for the GW Sampling at the Airfield Sanitary Landfill	MP	AUG-1999
FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, 1 April - 30 June 1999	EA	AUG-1999
FTD -30-1595, Final Summary Report Interim Remedial Measure Enhancement June/July 1999 Gas Alley Area 1595 FTD, NY	Radian	AUG-1999
FTD -112, Range 17 POL Spill Final Report, Range 17, Fort Drum, NY	Radian	AUG-1999
FTD -112, Range 17 POL Spill Final Report (Book 2), Range 17, Fort Drum, NY (Sampling data, Appendices B & C for above rpt)	Radian	AUG-1999
FTD -112, Gasoline Alley Soil Remediation, FTD, NY, Range 17 Soil Samples Data Package (lab report soil confirmation samples)	Lanc Labs	AUG-1999
FTD -7, Old Sanitary Landfill Drainage Stabilization Project (Downchutes)	Radian	AUG-1999
FTD -30-3805, Summary of Area 3805 Treatment System Upgrades - 3805-RW11 and 3805-RW13 Gasoline Alley, FTD, NY	EA	SEP-1999
FTD -7, Phase I Risk Assessment, FTD, NY (Responses to comments on Pre-draft Risk Assessment)	MP	SEP-1999
FTD -30, Phase I Risk Assessment, FTD, NY (Responses to comments on Pre-draft Risk Assessment)	MP	SEP-1999
FTD -7, First 1999 Semiannual Surface water and Sediment Sampling Results OSL, FTD, NY (OSL, 1595, 1795 creeks)	MP	NOV-1999
FTD -30-1595, First 1999 Semiannual Surface water and Sediment Sampling Results OSL, FTD, NY (OSL, 1595, 1795 creeks)	MP	NOV-1999
FTD -30-1795, First 1999 Semiannual Surface water and Sediment Sampling Results OSL, FTD, NY (OSL, 1595, 1795 creeks)	MP	NOV-1999
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot, FTD, NY	EA	NOV-1999
FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Study, July - Sept 1999, Gasoline Alley, FTD, NY	EA	NOV-1999
FTD -30-1795, Quarterly Report of Progress -Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD, NY (July - Sept 1999)	EA	NOV-1999
FTD -30-1795, Letter Report of Data Gap Study, Separate-Phase Product Delineation, Area 1795, Gasoline Alley, FTD, NY	EA	NOV-1999

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1999	Title	Author	Date
	FTD -8, Report for Annual Groundwater Sampling Performed 8/31/99 and 9/1/99 Airfield Sanitary Landfill, FTD, NY	MP	NOV-1999
2000	FTD -30-1795, Final Letter Report of Data Gap Study, Separate-Phase Product Delineation, Area 1795, Gasoline Alley, FTD, NY	EA	JAN-2000
	FTD -8, ASL, FTD, NY Final Report for Annual Groundwater Sampling Performed 8/31/99 and 9/1/99 (includes 1 CDROM)	MP	JAN-2000
	FTD -30-1595, Final Groundwater Pilot Study Design Area 1595, Gasoline Alley, FTD, NY	EA	JAN-2000
	FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY	EA	JAN-2000
	FTD -91, Final Remedial Investigation Data Gap Study AAFES Service Station, FTD, NY	EA	JAN-2000
	FTD -30, Second Semi Annual 1999 Groundwater Sampling Event Results, Gasoline Alley Fort Drum, New York	MP	JAN-2000
	FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Pilot Study, Gasoline Alley, FTD, NY	EA	FEB-2000
	FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD, NY	EA	FEB-2000
	FTD -76, Final Remedial Action Report for Building T-4002, Fort Drum, New York	CDM	FEB-2000
	FTD -7, Second 1999 Semiannual Surface Water and Sediment Sampling Results Old Sanitary Landfill, FTD	MP	MAR-2000
	FTD -30-1395, Quarterly Report of System Operation - Area 1395 and 1495 Systems, Gasoline Alley, FTD, NY (Oct - Dec 1999)	EA	MAR-2000
	FTD -30-1495, Quarterly Report of System Operation - Area 1395 and 1495 Systems, Gasoline Alley, FTD, NY (Oct - Dec 1999)	EA	MAR-2000
	FTD -88, Work plan for installation of new well and sampling of 3 wells for VOCs and lead at T-4006 site	MP	MAR-2000
	FTD -30-1195, Final Comprehensive Contaminant Assessment Report Vol. II Areas 1195, 1295, 1395, and 1495 Gas Alley, FTD, NY	EA	MAR-2000
	FTD -30-1295, Final Comprehensive Contaminant Assessment Report Vol. II Areas 1195, 1295, 1395, and 1495 Gas Alley, FTD, NY	EA	MAR-2000
	FTD -30-1395, Final Comprehensive Contaminant Assessment Report Vol. II Areas 1195, 1295, 1395, and 1495 Gas Alley, FTD, NY	EA	MAR-2000
	FTD -30-1495, Final Comprehensive Contaminant Assessment Report Vol. II Areas 1195, 1295, 1395, and 1495 Gas Alley, FTD, NY	EA	MAR-2000
	FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD, NY	EA	APR-2000
	FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY	EA	APR-2000
	FTD -91, Groundwater Sampling Results, AAFES Service Station, FTD, NY (sampling 3 wells, 3/7/00)	EA	APR-2000

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Title	Author	Date
FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Study, Gasoline Alley, FTD, NY	EA	MAY-2000
FTD -91, Temporary Groundwater Sampling Point Results AAFES Service Station, FTD, NY	EA	MAY-2000
FTD -31, Groundwater Sampling at Building T-91, Fort Drum, NY Round 11 Results (March 2000)	Weston	MAY-2000
FTD -7, First Semiannual Year 2000 Surface Water and Sediment Sampling Results OSL and Areas 1595 & 1795	MP	JUL-2000
FTD -30-1595, First Semiannual Year 2000 Surface Water and Sediment Sampling Results OSL and Areas 1595 & 1795	MP	JUL-2000
FTD -30-1795, First Semiannual Year 2000 Surface Water and Sediment Sampling Results OSL and Areas 1595 & 1795	MP	JUL-2000
FTD -88, Report for Well Installation and Sampling Performed at Area T-4006, FTD, NY	MP	JUL-2000
FTD -30-1395, Quarterly Report of System Operation - Area 1395 and 1495 Systems, Gasoline Alley, FTD, NY (Apr - Jun 2000)	EA	JUL-2000
FTD -30-1495, Quarterly Report of System Operation - Area 1395 and 1495 Systems, Gasoline Alley, FTD, NY (Apr - Jun 2000)	EA	JUL-2000
FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD, NY	EA	JUL-2000
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY	EA	JUL-2000
FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Study, Gasoline Alley, FTD, NY	EA	JUL-2000
FTD -91, Groundwater Sampling Results, June 2000 Sampling Event, AAFES Service Station, FTD, NY	EA	AUG-2000
FTD -7, Final Risk Assessment Fort Drum, New York Gasoline Alley, WWII Landfill, Old Sanitary Landfill	MP	SEP-2000
FTD -30, Final Risk Assessment Fort Drum, New York Gasoline Alley, WWII Landfill, Old Sanitary Landfill	MP	SEP-2000
FTD -30, Final Comprehensive Contaminant Assessment Report Vol. I Introduction and Overview Gasoline Alley, FTD, NY	EA	SEP-2000
FTD -30, Final Comprehensive Contaminant Assessment Report Volumes I - V Gasoline Alley, FTD, NY (CD-ROM)	EA	SEP-2000
Final Risk Assessment Work Plan FTD, NY Rng 17 & 35, Spill Nr Rng 17, T91, T1245, P2140, T4006, ASL	EA	OCT-2000
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FD, NY (July - September 2000)	EA	OCT-2000
FTD -22, Final Report Groundwater Monitoring at EOD Burn Sites, Rngs 17 and 35, FTD, NY (Report and CD)	MP	OCT-2000
FTD -24, Final Report Groundwater Monitoring at EOD Burn Sites, Rngs 17 and 35, FTD, NY (Report and CD)	MP	OCT-2000
FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD, NY (Jul-Sept 00)	EA	NOV-2000

IRP Previous Studies

2000

Title	Author	Date
FTD -30-1595, Summary of Operation and Maintenance Technical Support, July - September 2000 Building 1599, FTD, NY	EA	NOV-2000
FTD -30-1395, Quarterly Report of System Operation - Area 1395 and 1495 Systems Gasoline Alley, FTD, NY	EA	NOV-2000
FTD -30-1495, Quarterly Report of System Operation - Area 1395 and 1495 Systems Gasoline Alley, FTD, NY	EA	NOV-2000
FTD -30-3805, Quarterly Report of Progress - Area 3805 Pilot Treatment System Study, Gasoline Alley, FTD, NY (Jul-Sept)	EA	NOV-2000
FTD -91, Groundwater Sampling results, Sept. 2000 Sampling Event, AAFES Station, FTD, NY	EA	DEC-2000
FTD -30-1295, Final Work Plan Remedial Pilot Study Areas 1295, 1395, and 1495 Gasoline Alley, FTD, NY	EA	DEC-2000
FTD -30-1395, Final Work Plan Remedial Pilot Study Areas 1295, 1395, and 1495 Gasoline Alley, FTD, NY	EA	DEC-2000
FTD -30-1495, Final Work Plan Remedial Pilot Study Areas 1295, 1395, and 1495 Gasoline Alley, FTD, NY	EA	DEC-2000
FTD -30-1595, Final Area 1595 Groundwater Pilot Study Report Gasoline Alley FTD, NY	EA	DEC-2000
FTD -91, Final Work Plan Aquifer Air Sparging/Dual-Phase Extraction Pilot Study AAFES Station Building P-2140, FTD, NY	EA	DEC-2000

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FTD -30-1595, Groundwater Model Enhancement Report Area 1595 Fort Drum, New York	MP	JAN-2001
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY	EA	JAN-2001
Quarterly IRP Meeting Minutes for Fort Drum, 1/10/01 and 1/11/01	MP	MAR-2001
FTD -30-3805, Quarterly Report of Progress, Area 3805 Pilot Treatment System Study, Jan-Mar 2001, FTD, NY	EA	APR-2001
FTD -8, Airfield Sanitary Landfill, Fort Drum, NY, Fnal Report for Annual Groundwater Sampling Performed 8/8/00 and 8/9/00	MP	APR-2001
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY	EA	APR-2001
FTD -30-1595, Summary of Operation and Maintenance Technical Support, Jan - Mar 2001 Building 1599, FTD, NY	EA	APR-2001
FTD -30-1395, Quarterly Report of System Operation-Bioventing & AAS, Areas 1395 & 1495 (Jan-Mar 2001), FTD, NY	EA	APR-2001
FTD -30-1495, Quarterly Report of System Operation-Bioventing & AAS, Areas 1395 & 1495 (Jan-Mar 2001), FTD, NY	EA	APR-2001
FTD -89, Final Remedial Investigation Data Gap Study, Former Building T-1245, FTD, NY	EA	APR-2001
FTD -91, Groundwater Sampling Results, March 2001 Sampling Event, AAFES Station, FTD, NY	EA	MAY-2001
FTD -30-1795, Quarterly Report of Progress Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD,	EA	MAY-2001

IRP Previous Studies

2001

Title	Author	Date
NY(1Jan-31Mar 01)		
FTD -91, Quarterly Report of Progress, Bldg P-2140 AAFES Gas Station, FTD, NY (1 Jan - 31 Mar 01)	EA	MAY-2001
FTD -30, Gasoline Alley Groundwater Monitoring Program Work Plan, FTD, NY	MP	MAY-2001
FTD -30, Final Source Area Remedial Investigation/Datagap Study Report, Areas 1595,1795,1895,1995,3805, FTD, NY	EA	MAY-2001
FTD -30, Gasoline Alley Groundwater Monitoring Program, FTD, NY April 2001 Well/Piezometer Gauging Results (1 disk)	MP	MAY-2001
Quality Assurance Program Plan	MP	MAY-2001
FTD -30-3805, Quarterly Report of Progress, Area 3805 Pilot Treatment System Study, April-June 2001, FTD, NY	EA	JUL-2001
FTD -30-1595, Summary of Operations and Maintenance Technical Support, April-June 2001, Bldg 1599, FTD, NY	EA	JUL-2001
FTD -91, Groundwater Sampling Results, June 2001 Sampling Event, AAFES Service Station, FTD, NY	EA	JUL-2001
FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, April - June 2001, Gasoline Alley, FTD, NY	EA	JUL-2001
FTD -7, Response to Comments on Draft Work Plan for DGS to Support CMS Gas Alley Areas 1895/1995/3805 and OSL, FTD	MP	JUL-2001
FTD -30-3805, Response to Comments on Draft Work Plan for DGS to Support CMS Gas Alley Areas 1895/1995/3805 and OSL, FTD	MP	JUL-2001
FTD -30-1395, Quarterly Report of System Operation - Bioventing and AAS Systems, Areas 1395 and 1495, Gas Alley, FTD, NY	EA	AUG-2001
FTD -30-1495, Quarterly Report of System Operation - Bioventing and AAS Systems, Areas 1395 and 1495, Gas Alley, FTD, NY	EA	AUG-2001
ArcView Project Update (update to IRP sampling database; CD)	EA	AUG-2001
FTD -7, Final Work Plan Data Gap Study to Support Corrective Measures Study, Gasoline Alley and Old Sanitary Landfill	MP	SEP-2001
FTD -30-3805, Final Work Plan Data Gap Study to Support Corrective Measures Study, Gasoline Alley and Old Sanitary Landfill	MP	SEP-2001
FTD -7, Summary of Surface Water and Sediment Sampling Results (July 1999 - December 2000), OSL, 1595, 1795, FD, NY	MP	SEP-2001
FTD -30-1595, Summary of Surface Water and Sediment Sampling Results (July 1999 - December 2000), OSL, 1595, 1795, FD, NY	MP	SEP-2001
FTD -30-1795, Summary of Surface Water and Sediment Sampling Results (July 1999 - December 2000), OSL, 1595, 1795, FD, NY	MP	SEP-2001
FTD - 91, Full-Scale Dual-Phase Extraction Pilot Study Work Plan, AAFES Station, FD, NY	EA	SEP-2001

IRP Previous Studies

2001

Title	Author	Date
FTD -91, Safety, Health, and Emergency Response Plan for the Full-Scale Dual-Phase Extraction Pilot Study AAFES Station	EA	SEP-2001
FTD -91, Quarterly Report of Progress - Building P-2140 Interim Treatment System Pilot Study, FTD, NY	EA	OCT-2001
FTD -30-3805, Response to Comments for the Draft Source Area/LNAPL Focused Technical Selection Report, Gas Alley, Area 3805, FD, NY	MP	OCT-2001
FTD -91, Groundwater Sampling Results, Sept. 2001 Sampling Event, AAFES Station, FTD, NY	EA	OCT-2001
FTD -91, Quarterly Report of AAS System Operation - AAFES Station, FTD, NY,	EA	OCT-2001
FTD -30-1395, Quarterly Report of System Operation - Bioventing and AAS Systems, Areas 1395 and 1495, Gas Alley, FTD, NY	EA	NOV-2001
FTD -30-1495, Quarterly Report of System Operation - Bioventing and AAS Systems, Areas 1395 and 1495, Gas Alley, FTD, NY	EA	NOV-2001
FTD -30-3805, Quarterly Report of Progress, Area 3805 Pilot Treatment System Study, July-Sept. 2001, Gasoline Alley, FTD, NY	EA	NOV-2001
FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, Gasoline Alley. FTD, NY (Jul - Sept 01)	EA	NOV-2001
FTD -30-1595, Summary of Operation and Maintenance Technical Support, July- Sept 2001 Building 1599, FTD, NY	EA	NOV-2001
FTD -91, Final Aquifer Air Sparging Installation and Startup Report AAFES Station, FTD, NY	EA	NOV-2001
FTD -30-3805, Final Source Area /LNAPL Focused Technical Selection Report Gasoline Alley Areas 1895, 1995, and 3805, FTD, NY	MP	NOV-2001
FTD -30-3805, Final Source Area /LNAPL Focused Technical Selection Report Gas Alley Areas 1895, 1995, 3805, FTD, NY (CD)	MP	NOV-2001
FTD -7, Quarterly Report for Phytoremediation Pilot Study at the Old Sanitary Landfill, FTD, NY	MP	NOV-2001
FTD -91, Final AAS 6-Month Operation Summary Report AAFES Station, FTD, NY	EA	DEC-2001
FTD -30-1295, Final Remedial Pilot Study Implementation Report Area 1295, Gasoline Alley, FTD, NY	EA	DEC-2001
FTD -91, Final Dual-Phase Extraction Pilot Test Summary Report and Conceptual Design AAFES Station P-2140, FTD, NY	EA	DEC-2001
FTD -30-1395, Final Aquifer Air Sparging Pilot Study Implementation Report Area 1395 and 1495, Gasoline Alley, FTD, NY	EA	DEC-2001
FTD -30-1495, Final Aquifer Air Sparging Pilot Study Implementation Report Area 1395 and 1495, Gasoline Alley, FTD, NY	EA	DEC-2001
FTD -91, Groundwater Sampling Results, December 2001 Sampling Event, AAFES Station, FTD, NY	EA	JAN-2002

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IRP Previous Studies

2002

Title	Author	Date
FTD -30-1395, Quarterly Report of System Operation - Bioventing and AAS Systems, Areas 1395 and 1495 Gas Alley	EA	JAN-2002
FTD -30-1495, Quarterly Report of System Operation - Bioventing and AAS Systems, Areas 1395 and 1495 Gas Alley	EA	JAN-2002
FTD -7, Quarterly Report for Oct - Dec 2001 Phytoremediation Pilot Study at OSL, FTD, NY	MP	JAN-2002
FTD -30-1795, Quarterly Report of Progress - Area 1795 Bioslurping Pilot Study, Gasoline Alley, FTD, NY	EA	JAN-2002
FTD -91, Quarterly Report of AAS System Operation - AAFES Station, FTD, NY (October 1 - December 31, 2001)	EA	FEB-2002
FTD -30-3805, Quarterly Report of Progress, Area 3805 Pilot Treatment System Study, Oct - Dec 2001, Gas Alley, FTD	EA	FEB-2002
FTD -30-1295, Oxygen Releasing Compound Pilot Study Summary Report, Area 1295, Gasoline Alley, FTD, NY	EA	MAR-2002
FTD -20-1395, Aquifer Air Sparging Pilot Study One-Year Summary Letter Report, Area 1395, Gasoline Alley, FTD, NY	EA	MAR-2002
FTD -20-1495, Aquifer Air Sparging Pilot Study One-Year Summary Letter Report, Area 1495, Gasoline Alley, FTD, NY	EA	MAR-2002
FTD -30-3805, Final Work Plan Source Area Remedial Design Gasoline Alley Areas 3805 & 1995, FTD, NY	MP	APR-2002
FTD -30-3805, Final Work Plan Source Area Remedial Design Gasoline Alley Areas 3805 & 1995, FTD, NY	MP	APR-2002
FTD -30, April 2002 Well Gauging for Gasoline Alley, FTD, NY	MP	MAY-2002
FTD -30-3805, Final Cost Estimate Source Area Remedial System Gasoline Alley Areas 3805 & 1995, FTD, NY	MP	JUN-2002
FTD -30, Final October 2001 Groundwater Monitoring Gasoline Alley & Surface Water & Sediment Areas 1595, 1795, OSL	MP	JUL-2002
FTD -91, Quarterly Report of Progress, O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JUL-2002
FTD -30-1395, Quarterly Report of Progress, O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JUL-2002
FTD -30-1495, Quarterly Report of Progress, O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JUL-2002
FTD -30-1595, Quarterly Report of Progress, O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JUL-2002
FTD -30-1795, Quarterly Report of Progress, O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JUL-2002
FTD -30-3805, Quarterly Report of Progress, O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JUL-2002

IRP Previous Studies

2002

Title	Author	Date
FTD -8, Airfield Sanitary Landfill, FTD, NY Final Report for Annual Groundwater Sampling Performed 10/3-10/4/01 (w disk)	MP	JUL-2002
FTD -7, Final Data Gap Study Report to Support CMS Gasoline Alley and OSL, FTD, NY (includes CD)	MP	JUL-2002
FTD -30-3805, Final Data Gap Study Report to Support CMS Gasoline Alley and OSL, FTD, NY (includes CD)	MP	JUL-2002
Final Risk Assessment, FTD, NY (Eight sites; Ranges 17& 35, T-91, T-1245, P-2140, T-4006, ASL, Nr. R17)	MP	SEP-2002
Quarterly Report of Progress (Jun - Aug 2002), O&M, Areas 1395, 1495, 1595, 1795, 3805, AAFES	EA	OCT-2002
FTD -22, EOD Burn Sites, Ranges 17 and 35 Subpart X Permit Withdrawal Request,	MP	NOV-2002
FTD -22, EOD Burn Sites, Ranges 17 and 35 Subpart X Permit Withdrawal Request,	MP	NOV-2002

2003

FTD -91, Quarterly Report of Progress, (Sep-Nov 02) O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JAN-2003
FTD -30-1395, Quarterly Report of Progress, (Sep-Nov 02) O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JAN-2003
FTD -30-1495, Quarterly Report of Progress, (Sep-Nov 02) O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JAN-2003
FTD -30-3805, Quarterly Report of Progress, (Sep-Nov 02) O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, N	EA	JAN-2003
FTD -30-1595, Quarterly Report of Progress, (Sep-Nov 02) O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JAN-2003
FTD -30-1795, Quarterly Report of Progress, (Sep-Nov 02) O&M, Areas 1395, 1495, 1595, 1795, 3805, and AAFES Station, FTD, NY	EA	JAN-2003
FTD -7, Quarterly Report for Oct - Dec 2002 Phytoremediation Pilot Study at the OSL, FTD, NY	MP	MAR-2003
FTD -30-3805, Storm water Pollution Prevention Plan Areas 1895, 1995, and 3805, FTD, NY	EA	APR-2003
FTD -30-3805, Environmental Protection Plan for Source Area Remediation Gasoline Alley Areas 3805 and 1995, FTD, NY	CAPE	APR-2003
2002 Basewide Groundwater, Surface Water, and Sediment Monitoring Gasoline Alley, FTD, NY (Volumes I, & II)	MP	APR-2003
Quarterly Report of Progress (Dec. 2002 - Feb. 2003) O&M, Areas 1395, 1495, 1595, 1795, 3805, AAFES	EA	APR-2003
FTD -7, Quarterly Report for Jan - Mar 2003 Phytoremediation Pilot Study at the OSL, FTD, NY	MP	MAY-2003
Airfield Sanitary Landfill (ASL) Test Pit Investigation Letter Report of Findings (to identify northern edge of cap)	MP	JUN-2003
FTD -91, Final Corrective Measures Study Army Air Force Exchange Service Station Fort Drum, New York	EA	JUN-2003

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2003

Title	Author	Date
Quarterly Report of Progress (Mar - May 2003) O&M Areas 1395, 1495, 1595, 1795, 3805 and AAFES	EA	JUL-2003
FTD -30-3805, Final Work Plan for Source Area Remediation Gasoline Alley, Areas 3805 and 1995 at FTD, NY	CAPE	JUL-2003
FTD -30-1595, Final Corrective Measures Study Area 1595 Gasoline Alley, FTD, NY	EA	JUL-2003
FTD -91, Final Operations and Maintenance Manual Full-Scale Dual-Phase Extraction Pilot Study AAFES Station, FTD (w Appendix)	EA	AUG-2003
FTD -91, Final Installation and Startup Report for Full-Scale Dual-Phase Extraction Pilot System AAFES, FTD, NY	EA	AUG-2003
FTD -7, Quarterly Report for April - June 2003 Phytoremediation Pilot Study at the OSL, FTD, NY Data Gap Study	MP	AUG-2003
Quarterly Report of Progress (Jun - Aug 2003), O&M, Areas 1395, 1495, 1595, 1795, 3805, AAFES	EA	SEP-2003
Final 2002 Basewide Groundwater, Surface Water, and Sediment Monitoring Report (Replacement Pages, disk)	MP	NOV-2003

2004

Final Risk Assessments Fort Drum, NY (CD) (all risk assessed sites except NJANG and T-4002)	MP	JAN-2004
Quarterly Report of Progress (Sep - Nov 2003), O&M, Areas 1395, 1495, 1595, 1795, 3805, AAFES	EA	JAN-2004
FTD -30-1395, Post-Termination Monitoring Program Bioventing/AAS Treatment Systems Areas 1395/1495, FTD, NY	MP	FEB-2004
FTD -30-1495, Post-Termination Monitoring Program Bioventing/AAS Treatment Systems Areas 1395/1495, FTD, NY	MPF	FEB-2004
FTD -30-3805, As-Built Construction Drawings Source Area Remedial Systems, Gasoline Alley Areas 3805 and 1995 (CD included)	CAPE	FEB-2004
FTD -30-1595, Final Chemical Oxidation Pilot Study Report Gasoline Alley Area 1595, FTD, NY	MP	APR-2004
Quarterly Report of Progress (Dec. 2003 - Feb. 2004) O&M Areas 1395, 1495, 1595, 1795, 3805, AAFES	EA	APR-2004
FTD -72, Final Addendum for NJANG Pond and T-4002 to the Final Risk Assessment (4 reports + 1 CD)	MP	APR-2004
FTD -76, Final Addendum for NJANG Pond and T-4002 to the Final Risk Assessment (4 reports + 1 CD)	MP	APR-2004
FTD-30-3805, Well Development Logs for Source Remediation Areas 3805/1995, FTD, NY + various submittals	CAPE	APR-2004
2003 Basewide Groundwater and Surface Water Monitoring Report, FTD, NY (Volumes I & II)	MP	MAY-2004
FTD -30-1795, Final Corrective Measures Study Area 1795 Gasoline Alley, FTD, NY	EA	JUN-2004
Quarterly Report of Progress (Mar - May 2004) O&M Areas 1395, 1495 1595, 1795 and AAFES, FTD, NY	EA	JUN-2004
FTD -30-3805, Final O&M Report for Source Area Remediation Gas Alley Area 3805 & 1995, FTD (Jan - Mar 2004)	CAPE	AUG-2004

IRP Previous Studies

2004

Title	Author	Date
FTD -7, Semiannual Progress Report Phytoremediation Pilot Study (Jan - Jun 2004)	MP	AUG-2004
FTD -30-3805, Safety, Health, Emergency Response Plan Addendum for MPE/AAS System Operation Areas 3805/1995	CAPE	AUG-2004
FTD -30-3805, O&M Manual for MPE System Fort Drum Area 3805-C, FTD, NY (CD included)	CAPE	AUG-2004
FTD -30-3805, O&M Manual for MPE System Fort Drum Area 3805-A & B, FTD, NY (CD included)	CAPE	AUG-2004
FTD -30-3805, Final O&M Report (Apr - Jun 2004) Multi-Phase Extraction and AAS Systems Areas 3805 and 1995, FTD	CAPE	AUG-2004
Quarterly Report of Progress (June - Aug 2004) O&M Areas 1395, 1495, 1595, 1795, and AAFES, FTD, NY	EA	SEP-2004
FTD -30-3805, Final As-Built Drawings for Source Area Remedial System Gasoline Alley Areas 3805 and 1995, FTD, NY	CAPE	SEP-2004
FTD -30-3805, O&M Manual for CAPE Environmental, FTD, NY (Global Technologies; Catalytic Oxidizer Unit)	CAPE	SEP-2004
FTD -30-3805, Final O&M Report (Jul - Sept 2004) Multi-Phase Extraction and AAS Systems Areas 3805 and 1995, FTD	CAPE	OCT-2004
Final Groundwater Seep Sampling Monitoring Report Old Sanitary Landfill	MP	NOV-2004
Fort Drum 2003 Basewide Groundwater and Surface Water Monitoring report & disk (new cover for draft only)	MP	NOV-2004
Quarterly Report of Progress (Sep - Nov 2004) O&M Areas 1395, 1495, 1595, 1795, and AAFES Station	EA	DEC-2004

2005

FTD -30-3805, O&M Manual for MPE System Fort Drum Area 1995, FTD, NY (System D); disk included	CAPE	JAN-2005
FTD -7, Statistical Analysis to Support the CMS: Gasoline Alley Areas 1895, 1995, & 3805 and OSL	CAPE	FEB-2005
FTD -30-3805, Statistical Analysis to Support the CMS: Gasoline Alley Areas 1895, 1995, & 3805 and OSL	CAPE	FEB-2005
FTD -7, Semiannual Progress Report Phytoremediation Pilot Study (Jul - Dec 2004)	MP	MAR-2005
FTD -112, Investigation and Closure Report Training Site POL Contamination Near Range 17, FTD, NY	MP	MAR-2005
FTD -30-3805, O&M Report (Jan-Feb 2005) MPE and AAS Systems Areas 3805 and 1995, FTD, NY	CAPE	MAR-2005
FTD -30-1595, Storm water Pollution Prevention Plan Area 1595, Gasoline Alley, FTD, NY	CAPE	APR-2005
Quarterly Report of Progress (Dec-Feb 2005) O&M Areas 1395, 1495, 1595, 1795, and AAFES, FTD, NY	EA	APR-2005
FTD -30-1595, Final Conceptual Design Plan Area 1595, Gasoline Alley, FTD, NY	CAPE	APR-2005
2004 Basewide Groundwater and Surface Water Monitoring, FTD, NY + CD	MP	MAY-2005
FTD-30-1595, Final Site Safety and Health Plan for Remedial Design & Remedial Action Gasoline Alley, Area 1595	CAPE	JUL-2005
FTD-30-1595, Final Work Plan for Remedial Design and Remedial Action Gasoline Alley Area 1595, FTD,	CAPE	JUL-2005

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2005

Title	Author	Date
NY		
FTD-30-1595, Final Contractor Quality Control Plan for Remedial Design & Remedial Action Gasoline Alley, Area 1595	CAPE	JUL-2005
FTD-7, Semiannual Progress Report Phytoremediation Pilot Study (Jan - Jun 2005)	MP	AUG-2005
FTD -30-3805, O&M Manual for CAPE Environmental (Global Tech; Catalytic Oxidizer Unit; System D) - Area 1995 - disk	CAPE	SEP-2005
FTD-91, Work Plan for Dual-Phase Extraction System Enhancements AAFES Station, FTD, NY + CD	EA	DEC-2005
FTD-89, Final Focused Technical Selection Area 1245 FTD, NY	MP	DEC-2005
FTD-30-3805, Final Corrective Measures Study Gasoline Alley Areas 1895, 1995, & 3805, and Old Sanitary Landfill, FTD	MP	DEC-2005

2006

FTD-30-1595, Well Drilling & Development Logs for Remedial Action & Remedial Design Area 1595, FTD, NY	CAPE	JAN-2006
FTD-30-1595, Operations and Maintenance Manual for SVE & AAS Systems Fort Drum Area 1595, FTD, NY	CAPE	FEB-2006
2005 Basewide Groundwater and Surface Water Monitoring, FTD, NY + CD	MP	FEB-2006
FTD-30-1595, Final As-Built Drawings for Remedial Action and Remedial Design Gasoline Alley Area 1595, FTD, NY + CD	CAPE	FEB-2006
FTD-30-1595, Startup and First Quarterly O&M Report (Dec 2005 - Mar 2006) SVE and AAS Systems Area 1595, FTD + CD	CAPE	MAR-2006
FTD-7, Semiannual Progress Report Phytoremediation Pilot Study (Jul - Dec 2005) Old Sanitary Landfill, FTD, NY	MP	MAR-2006
Quarterly Reports of Progress (Mar 2005 - Feb 2006) O&M Areas 1395, 1495, 1595, 1795, 3805 and AAFES	EA	MAR-2006
Quarterly Reports of Progress (Mar 2005 - Feb 2006) O&M Areas 1395, 1495, 1595, 1795, 3805 and AAFES	EA	MAR-2006
FTD-30-1795, Final Work Plan for Conceptual Remedial Design Area 1795, Gasoline Alley, FTD, NY + CD	EA	MAR-2006
FTD-30-1295, Data Report Area 1295 Direct-push Sampling (October 21, 2005) + CD	MP	APR-2006
FTD-30-1295, Final Focused Technical Selection Area 1295 FTD, NY + CD	MP	APR-2006
Final Community Relations Plan for the Fort Drum Installation Restoration Program, FTD, NY+ 2 CDs	EA	APR-2006
FTD-030D, Second Quarterly O&M Report (Apr - Jun 2006) SVE and AAS Systems Area 1595, FTD, NY (CD)	CAPE	JUL-2006
FTD-007, Semiannual Progress Report for the Phytoremediation Pilot Study (Jan-Jun 2006) Old Sanitary Landfill	MP	AUG-2006
FTD-030A, Final In situ Chemical Oxidation Pilot Study Work Plan Gasoline Alley Area 1295 FTD, NY	MP	OCT-2006

IRP Previous Studies

2007

Title	Author	Date
FTD-007, Final Phytoremediation Pilot Study Work Plan Old Sanitary Landfill, FTD, NY (CD)	MP	JAN-2007
2006 Basewide Groundwater and Surface Water Monitoring, FTD, NY (CD)	MP	FEB-2007
FTD-007, Final Conceptual Design Work Plan Old Sanitary Landfill Cap Improvements, FTD, NY (CD)	MP	FEB-2007
FTD-007, Semiannual Progress Report for the Phytoremediation Pilot Study (Jul-Dec 2006) Old Sanitary Landfill (CD)	MP	MAR-2007
FTD-030E - Final Accident Prevention Plan Source Area Remediation Project Plans for SVE, AAS, WWII Area 1795	Cape	APR-2007
FTD-030E - Final Stormwater Pollution Prevention Plan for Source Area Remediation Gasoline Alley Area 1795	Cape	APR-2007
Quarterly Reports of Progress (Mar 2006 - Feb 2007) O&M Areas 1395, 1495, 1595, 1795, 3805 and AAFES	EA	APR-2007
FTD-030E - Pre-Design Investigation Work Plan for WWII Landfill Gasoline Alley Area 1795	Cape	JUN-2007
FTD-030F - Final Addendum Source Area Remediation Gasoline Alley Area 3805C	Cape	AUG-2007
FTD-030E - Final Work Plan Source Area Remediation SVE, AAS and WWII Landfill Limited Excavation Area 1795	Cape	AUG-2007
FTD-007 - Semiannual Progress Report for Phytoremediation Pilot Study (Jan - June 2007) Old Sanitary Landfill	Malcolm Pirnie	SEP-2007
Installation Restoration Program Basewide Monitoring Work Plan	Malcolm Pirnie	OCT-2007
FTD-030D - Draft Conceptual Work Plan for Area 1595 Creek Conceptual Remedial Design& Remedial Action, 1595	Cape	NOV-2007

2008

FTD-030F - As-Built Construction Drawings for Source Area Remediation Gasoline Alley Area 3805C Well Line Extension	Cape	JAN-2008
FTD-088 and FTD-076 - Areas T-4002 and T-4006 Site Closure Report	Malcolm Pirnie	JAN-2008
FTD-030A - Draft In situ Chemical Oxidation Pilot Study Report Gasoline Alley Area 1295	Malcolm Pirnie	FEB-2008
2007 Basewide Groundwater and Surface Water Monitoring	Malcolm Pirnie	FEB-2008
FTD-007 - Phytoremediation Pilot Study 2007 Annual Progress Report Old Sanitary Landfill	Malcolm Pirnie	MAY-2008
FTD-007 - Final Work Plan for Old Sanitary Landfill Cap Improvements, Cell 2	Plexus	MAY-2008
Quarterly Report of Progress (Mar 2007 Apr 2008) O&M Areas 1395, 1495, 1595, 1795, 3805 and AAFES	EA	JUN-2008
FTD-076 and FTD-088 - Areas T-4002 and T-4006 Site Closure Report	Malcolm Pirnie	JUL-2008
FTD-030A - Final In situ Chemical Oxidation Pilot Study Report Gasoline Alley Area 1295	Malcolm Pirnie	AUG-2008
FTD-030E - Startup and First Quarterly O&M Report (Dec 2007 - Mar 2008) SVE and AAS Systems Area 1795	Cape	AUG-2008

IRP Previous Studies

2008	Title	Author	Date
	FTD-030E - Second Quarterly O&M Report (Apr - Jun 2008) SVE and AAS Systems Area 1795	Cape	SEP-2008
	FTD-030E Construction Drawings MPE/SVE/AAS Remedial System Area 1795, Gasoline Alley	Cape	SEP-2008
	Quarterly Report of Progress (May-Jun 2008) O&M Areas 1395, 1494, 1595, 1795, 3805, and AAFES	Plexus	SEP-2008
	Fall 2008 Base-wide Monitoring Work Plan Addendum Gasoline alley and AAFES Station Bldg 2140	Plexus	OCT-2008
2009			
	2008 Annual Basewide Groundwater and Surface Water Monitoring Report	Plexus	JAN-2009
	FTD-030A - Final Membrane Interface Probe Investigation Work Plan Gasoline Alley Area 1295	Plexus	MAR-2009
	FTD-030D - Final Membrane Interface Probe Investigation Work Plan Gasoline Alley Area 1595	Plexus	MAR-2009
	FTD-091 - Fort Drum AAFES Service Station Work Plan for Remedial System Modifications	Plexus	MAR-2009
	Quarterly Report of Progress (Nov-Jan 2009) O&M Areas 1395, 1495, 1595, 1795, 1995, 3805, AAFES Service Station	Plexus	MAY-2009
	Draft Remedial System Optimization Report Fort Drum Groundwater Remediation Systems	Plexus	MAY-2009
	Draft Membrane Interface Probe Investigation Report AAFES Building P-2140	Plexus	MAY-2009
	Draft Membrane Interface Probe Investigation Report Gasoline Alley Area 1595	Plexus	MAY-2009
	Draft Membrane Interface Probe Investigation Report Gasoline Alley Area 1295	Plexus	MAY-2009
	Quarterly Report of Progress (Aug-Oct 2009) O&M Areas 1395, 1495, 1595, 1795, 3805 and AAFES Service Station	Plexus	NOV-2009
2010			
	Draft Post-Closure Monitoring and Maintenance Operations Manual Old Sanitary Landfill	Plexus	JAN-2010
	Draft 2009 Annual Basewide Monitoring Report	Plexus	FEB-2010
	Draft Final Project Evaluation Report for Area 1495	Plexus	DEC-2010
	Draft Final Project Evaluation Report for Area 1395	Plexus	DEC-2010
	Draft Final Project Evaluation Report for Area 1245	Plexus	DEC-2010
	Draft Final Project Evaluation Report for Building T-91	Plexus	DEC-2010
	Revised Quarterly Report of Progress (Aug-Oct) O&M Remediation Systems Gasoline Alley and AAFES	Plexus	DEC-2010
	Quarterly Report of Progress (August - October 2010) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station Fort Drum, New York	Plexus	DEC-2010
2011			
	2010 Draft Annual Basewide Monitoring Report	Plexus	MAR-2011
	Draft Membrane Interface Probe Investigation Work Plan Gasoline Alley Areas 1795 and 3805	Plexus	MAR-2011

IRP Previous Studies

2011

Title	Author	Date
Final Source Area Investigation Work Plan Addendum for the Fort Drum PCE Remedial Investigation for Solvent Contaminants	PARS Environmental	APR-2011
Draft Final Periodic Review Report for Area 1495	Plexus	JUL-2011
Draft Final Periodic Review Report for Area 1395	Plexus	JUL-2011
Draft Final Periodic Review Report for Area 1245	Plexus	JUL-2011
Draft Final Periodic Review Report for Building T-91	Plexus	JUL-2011
Draft Periodic Review Report for Area 1595	Plexus	SEP-2011
Draft Extraction Well Modification Work Plan Gasoline Alley Area3805	Plexus	OCT-2011
Draft Pilot Test Results For Nutrient Application at Building T-91 and Areas 1595, 1245, 1395 and 1495	Plexus	OCT-2011
FINAL Data Evaluation Report for the Remedial Investigation Nash Boulevard Water Tower	USACE Baltimore District	NOV-2011
Quarterly Report of Progress (August 2011 - October 2011) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station Fort Drum, New York	Plexus Scientific Corporation	DEC-2011

2012

Quarterly Report of Progress (November 2011 - January 2012) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station Fort Drum, New York	Plexus Scientific Corporation	MAR-2012
Final Report Bench Scale Testing of Remedial Alternatives, Fort Drum PCE Remedial Investigation for Solvent Contaminants, Fort Drum, New York	PARS Environmental, Inc.	MAR-2012
Area 3805 Gasoline Alley System Modification Summary, Fort Drum, New York	Plexus Scientific Corporation	JUN-2012
2011 Draft Annual Basewide Monitoring Report at Fort Drum, New York	Plexus Scientific	JUN-2012
Final Site Monitoring and Management Plan for Building T-91	Plexus Scientific Corporation	JUN-2012
Final Site Monitoring and Management Plan for Area 1245	Plexus Scientific Corporation	JUN-2012
Final Site Monitoring and Management Plan for Area 1395	Plexus Scientific Corporation	JUN-2012
Final Monitoring and Management Plan for Area 1495	Plexus Scientific Corporation	JUN-2012
Draft Remedial Investigation Report For Chlorinated Solvent Contaminants at Fort Drum, New York	PARS Environmental	JUL-2012
Quarterly Report of Progress (February 2012 - April 2012) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station Fort Drum, New York	Plexus Scientific	JUL-2012
Quarterly Report of Progress (May 2012 - July 2012) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station Fort Drum, New York	Plexus Scientific Corporation	SEP-2012
Draft Work Plan Pilot Testing of Permanganate Injection, Fort Drum PCE Remedial Investigation for Solvent Contaminants, Fort Drum, New York	PARS Environmental	SEP-2012

IRP Previous Studies

2012	Title	Author	Date
	Draft Work Plan Limited Subsurface Investigation to Define Waste Limits/Landfill Liner Revised Conceptual Running Track - Airfield Sanitary Landfill, Fort Drum, New York	H2H Associates	OCT-2012
	Draft Bioaugmentation Pilot Study Remedial Action Work Plan Area 1795, Fort Drum, New York	Plexus Scientific Corporation	NOV-2012
	Draft Bioaugmentation Pilot Study Remedial Action Work Plan Area 1595, Fort Drum, New York	Plexus Scientific Corporation	NOV-2012
	Draft Bioaugmentation Pilot Study Remedial Action Work Plan Area 3805, Fort Drum, New York	Plexus Scientific Corporation	NOV-2012
2013	Updated Finding Limited Subsurface Investigation to Define Waste Limits/Landfill Liner Revised Conceptual Running Track - Airfield Sanitary Landfill, Fort Drum, New York Letter Report	H2H Associates	FEB-2013
	Quarterly Report of Progress (February 2013-April 2013) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station, Fort Drum, New York	Plexus Scientific Corporation	JUN-2013
	Draft Final Bioaugmentation Pilot Study Remedial Action Work Plan, AAFES Station Site, Building P-2140, Fort Drum, New York	Plexus Scientific Corporation	OCT-2013
	Draft Bioaugmentation Pilot Study Remedial Action Work Plan, Area 1295, Fort Drum, New York	Plexus Scientific Corporation	OCT-2013
	Quarterly Report of Progress (May 2013-July 2013) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station, Fort Drum, New York	Plexus Scientific Corporation	OCT-2013
	Draft Final Bioaugmentation Pilot Study Results Memorandum for Area 1595, 1795, and 3805, Fort Drum, New York	Plexus Scientific Corporation	NOV-2013
	Quarterly Report of Progress (August 2013-October 2013) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station, Fort Drum, New York	Plexus Scientific Corporation	DEC-2013
2014	Draft Bioaugmentation Pilot Study RAWP Addendum for Area 1295, Fort Drum, New York	Plexus Scientific Corporation	JAN-2014
	Draft 2013 Annual Basewide Monitoring Report at Fort Drum, New York	Plexus Scientific Corporation	MAR-2014
	Final Remedial Action Completion Report For Lead Contaminated Soil Removal at the Nash Boulevard Water Tower Site at Fort Drum, New York	Plexus Scientific Corporation	MAR-2014
	Progress Report (November 2013-March 2014 2013) Operations and Maintenance Remediation Systems for Gasoline Alley and Army Air Force Exchange Service Station, Fort Drum, New York	Plexus Scientific Corporation	APR-2014
	Final General Maintenance Completion Report of the Pipe Slope Drain Repair Old Sanitary Landfill, Fort Drum, NY	Plexus	AUG-2014
	Groundwater Sampling Report Gasoline Alley Area 1700	USACE	OCT-2014
	Draft 2014 Annual Basewide Monitoring Report at Fort Drum, NY	Plexus	NOV-2014

IRP Previous Studies

	Title	Author	Date
2014	Progress Report (April-September 2014, O&M Remediation Systems for Gasoline Alley and AAFES Station, Fort Drum, NY	Plexus	DEC-2014
2015	Final Extended Bioaugmentation Pilot Study Completion Report at Fort Drum, NY	Plexus	JAN-2015

FORT DRUM
Installation Restoration Program
Site Descriptions

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Metals, Volatiles (VOC)

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

Phases	Start	End
RFA.....	198010.....	198107
CS.....	198110.....	198509
RFI/CMS.....	198602.....	200609
DES.....	200606.....	200709
IRA.....	198506.....	199909
CMI(C).....	200703.....	200709
LTM.....	200710.....	204412

RIP Date: N/A

RC Date: 200709

SITE DESCRIPTION

The OSL is located along Route 26. The landfill covers about 50 acres and was operated from 1940 to 1973. It consists of two cells (which may extend to a depth of 40 feet) divided by a ravine. Debris is believed to have been dumped in low spots of the ravine area. The cells have a synthetic cap, soil, and vegetative cover. Leachate, primarily BTEX, seeps out at points along the lower portions of the side slopes into a stream leading off-post at both landfill cells. The plume reconnaissance performed at Gasoline Alley (FTD-030) indicates that area 3805 is contributing to the contamination found at the landfill. Stream monitoring results show that the contamination is primarily limited to the stream bed adjacent to the cells.

In fiscal year (FY) 96 a landfill fence was installed and the vents were upgraded. In FY97 an IRA was conducted to remove debris and drums from the site and stabilize slopes. Slope stabilization and erosion control were completed in FY99. The risk assessment was completed in FY00. In FY01, a pilot phytoremediation project was installed and was successful in addressing contaminants. The groundwater plume appears stable. Limited cap repairs were completed in FY02 and FY03. Additional seep sampling was performed in summer FY04.

A corrective measures study (CMS) which included Gasoline Alley Area 3805 was completed in FY05 and approved by the NYSDEC in April 2006.

In 2007 a full-scale phytoremediation system was installed on the northern slope of OSL Cell 2 and around the unnamed creek between Cell 1 and Cell 2 to attenuate seep contaminants, primarily from 3805 (FTD-0030F). In 2007 cap improvements to the OSL Cell 2, including additional fill, new geomembrane, cover, top soil, and establishment of a minimum four percent slope were initiated and were completed in 2008.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action identifying the OSL ongoing measures as in situ remediation by phytoremediation of the seeps, landfill cap enhancements by maintenance, performance monitoring, and long-term operation and maintenance (Appendix B pages 51-52).

CLEANUP/EXIT STRATEGY

Annual groundwater and surface water monitoring will be conducted, cap and phytoremediation system maintenance and five-year reviews.

Site ID: FTD-008

Site Name: AIRFIELD SANITARY LANDFILL

STATUS

Regulatory Driver: RCRA
RRSE: MEDIUM
Contaminants of Concern: Metals
Media of Concern: Groundwater

Phases	Start	End
RFA.....	198010.....	198107
CS.....	198606.....	198707
RFI/CMS.....	198402.....	198708
DES.....	198909.....	199003
CMI(C).....	198910.....	199909
LTM.....	199910.....	204412
RIP Date:	N/A	
RC Date:	199909	

SITE DESCRIPTION

The Airfield Sanitary Landfill (ASL), formerly named Existing Landfill, is located near Wheeler Sack Army Airfield and covers approximately 37 acres. Reports indicate that paint wastes, pesticide containers, and POLs saturated wastes were disposed of here between 1973 and 1987. It was capped in 1988 with a polyvinylchloride cover, soil, and vegetation. The landfill is unlined.

In 1994 monitoring wells required by the NYSDEC were installed and quarterly monitoring was initiated. The four quarter monitoring program completed in 1995 indicated no significant impact to the environment.

A draft closure plan was developed in 1991 which recommended upgrading some of the gas vents, adding cover material, and improving drainage. A revised closure plan for the landfill was submitted in October 1995 and finalized in June 1997. A post closure operations and maintenance plan was finalized in September 1997. Cover improvements were completed in FY99. A trend analysis, finalized in 2001, revealed no significant problems. Cover repairs were completed in FY09.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action identifying the ASL ongoing measures as landfill maintenance and monitoring (Appendix B pages 36-37).

CLEANUP/EXIT STRATEGY

Landfill cover inspection and maintenance will be conducted annually and groundwater monitoring will be conducted every five years.

Site ID: FTD-030A

Site Name: GASOLINE ALLEY - AREA 1295

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

Contaminants of Concern: Polycyclic Aromatic Hydrocarbons (PAH), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	198010.....	198107
CS.....	198010.....	198107
RFI/CMS.....	199005.....	200604
DES.....	200606.....	200612
CMI(C).....	200606.....	200706
CMI(O).....	200706.....	201509
LTM.....	201510.....	201912

RIP Date: 200706

RC Date: 201510

SITE DESCRIPTION

Gasoline Alley, located in the cantonment area of FTD, is two miles long, and consisted of diesel, leaded, and unleaded fuel dispensing stations at nine separate areas: 1195, 1295, 1395, 1495, 1595, 1795, 1895, 1995 and 3805. Each area housed several large USTs (each typically 25,000 gallons) and associated piping. The major portion of the contamination is the result of pipes and USTs that leaked.

In 1994, 22 USTs were removed and about 6,000 cubic yards of soil were thermally treated and disposed of off-site. In 1995 all remaining components (pipelines, vaults, valve boxes and dispensing islands) associated with the 22 USTs were removed.

At Area 1295 gasoline and diesel fuel leakage has contaminated soil that is acting as a continued source for groundwater contamination. A pilot system (excavation and oxygen releasing compound [ORC]) was completed in FY00. The ORC was determined to be ineffective.

In FY06 a focused technical selection (FTS) study was completed and approved by the NYSDEC. The FTS recommended in situ chemical oxidation (ISCO) and MNA. Four rounds of ISCO injections were completed in 2006 and 2007 and were determined to be only partially effective. Further attempts at ISCO were aconducted in 2009 and 2010.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action referencing continuing investigation/operation of Interim Corrective Measures for Area 1295(Appendix B pages 43-44).

Bio remediation efforts through nutrient enhancement and injection of oxygenated water were attempted from 2011 through 2014.

CLEANUP/EXIT STRATEGY

Optimization and site closure (including well and system removal) and groundwater monitoring will be conducted.

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Polycyclic Aromatic Hydrocarbons (PAH), Volatiles (VOC)

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

Phases	Start	End
RFA.....	198010.....	198107
CS.....	198010.....	198107
RFI/CMS.....	199005.....	200505
DES.....	200405.....	200509
IRA.....	199310.....	199509
CMI(C).....	200506.....	200606
CMI(O).....	200606.....	201509
LTM.....	201510.....	201912

RIP Date: 200606

RC Date: 201510

SITE DESCRIPTION

In 1975, a hole was discovered in a large UST used to fuel Army vehicles at area 1595. The tank was subsequently replaced. Contamination was discovered in a small pond and stream downgradient reaching about 300 feet downstream.

A preliminary assessment was performed and an auto-skimmer was installed at the pond in 1990 and operated until 1994. A site inspection (SI) found free-product in wells. A free-product recovery and contaminated water treatment facility was installed in February 1992. Upgrades to the treatment facility were completed in FY95 and FY97. During FY97, contaminated soil was excavated from the pond and two weirs were constructed for flow measurements.

In FY99 additional recovery wells were installed, subsurface lines were replaced, and the treatment system was enhanced.

In FY00 the pump-and-treat system was upgraded (air stripper), a system evaluation was completed, and the groundwater model was updated. A chemical oxidation pilot study in FY02 indicated that this technology would not be effective.

In 2004 a decision document (DD) was signed.

In April 2004 the final CMS was submitted and approved by the NYSDEC. An SVE/AAS was designed and constructed in FY05 to replace the pump-and-treat system, and is currently operational.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action referencing corrective measures for Area 1595 as in situ remediation of subsurface soils and ex situ treatment of collected soil vapor, in situ remediation of groundwater, remediation of sediments in 1595 creek, performance monitoring, and long term operation and maintenance(Appendix B pages 47-48).

Bio remediation efforts through nutrient enhancement and injection of oxygenated water were attempted from 2011 through 2014.

CLEANUP/EXIT STRATEGY

Sampling of groundwater (eight wells) in FY17-19. Closure is expected in 2019, including well abandonment, system decommissioning, and site closeout documentation.

Site Name: GASOLINE ALLEY - AREA 1795/WWII LANDFILL

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Volatiles (VOC)

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

Phases	Start	End
RFA.....	198010.....	198107
CS.....	198010.....	198107
RFI/CMS.....	199005.....	200409
DES.....	200505.....	200708
CMI(C).....	200605.....	200709
CMI(O).....	200709.....	201509
LTM.....	201510.....	201912

RIP Date: 200709

RC Date: 201510

SITE DESCRIPTION

Area 1795 was a fuel dispensing area that released POL contamination. In addition, the WWII Landfill [formerly FTD-078, environmental program requirements (EPR) FTDR-029] is a surface dump within area 1795. The landfill, which was discovered in 1989, is approximately 6.5 acres and is heavily wooded. Debris is visible on the surface. The plume reconnaissance performed on Gasoline Alley in 1994 linked the two sites together. Sampling of debris indicated limited polychlorinated biphenyl (PCB) contamination.

At area 1795, a pump-and-treat pilot system was operated from FY96 to FY98 for groundwater depression and separate phase product recovery. This system was discontinued due to limited thickness of the free-product layer. A pilot AAS was tested in FY98 and indicated that this technology would be appropriate as part of a final remedy. A pilot bioslurping system (free-product recovery enhancement) was operated from FY98 to FY00. This system was discontinued due to the high water table.

A final CMS, submitted and approved in June 2004, recommended SVE/AAS treatment systems and limited excavation of the WWII landfill. The design was funded in FY05 and construction of the remedial system was funded in FY06.

Construction of the SVE/AAS systems was completed in 2007 and the systems are currently operational.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action referencing corrective measures for Area 1795 as in situ remediation of subsurface soils and ex situ treatment of collected soil vapor, in situ remediation of groundwater, performance monitoring, and long term operation and maintenance(Appendix B pages 48-49).

Bio remediation efforts through nutrient enhancement and injection of oxygenated water were attempted from 2011 through 2014.

CLEANUP/EXIT STRATEGY

Sampling of groundwater (eight wells) FY17-19. Closure is expected in 2019, including well abandonment, system decommissioning, and site closeout documentation.

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Polycyclic Aromatic Hydrocarbons (PAH), Volatiles (VOC)

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

Phases	Start	End
RFA.....	198010.....	198107
CS.....	198010.....	198107
RFI/CMS.....	199005.....	200604
DES.....	200106.....	200609
CMI(C).....	200209.....	200709
CMI(O).....	200410.....	201509
LTM.....	201510.....	201912

RIP Date: 200709

RC Date: 201510

SITE DESCRIPTION

Area 3805 includes three former fuel storage and dispensing areas (1895, 1995, 3805) whose plumes have commingled. Impacted soil is approximately 850,000 cubic feet. The free-product plume is approximately 450,000 square feet. The dissolved plume extends approximately 1,100 feet and exceeds 400 feet in width. The plume extends under OSL (FTD-007) prior to discharge to the OSL creek. Since 1995, approximately 30,000 gallons of free-product have been removed. An updated groundwater model was completed in September 2000.

A combined CMS for area 3805 and OSL was funded in FY00 and an FTS for the source area was completed in 2001. A MPE system was recommended for the source area. The RD for the source area was completed in 2002 and construction of an MPE and an AAS system was completed in FY04.

In FY05 a combined CMS for areas 3805/OSL was completed and was approved by the NYSDEC in April 2006. A supplemental sparging line was completed in 2007 and is currently operational.

This site is comingled with site CCFD-030G because of a source upgradient of the former USTs. NYSDEC and FTD are managing the contaminants as two separate problems.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action referencing corrective measures for Building P-2140 as in situ remediation of subsurface soils and ex situ treatment of collected soil vapor, in situ remediation of groundwater, removal of light non-aqueous phase liquid (LNAPL), performance monitoring, and long-term operation and maintenance (Appendix B pages 49-50).

Bioremediation efforts through nutrient enhancement and injection of oxygenated water were attempted from 2011 through 2014.

CLEANUP/EXIT STRATEGY

Operation of the MPE and AAS systems will continue at the source area and bio augmentation injections are anticipated in FY16 followed by sampling of groundwater (eight wells) FY17-19. Closure is expected in 2019, including well abandonment, system decommissioning, and site closeout documentation.

Site ID: FTD-091

Site Name: BLDG P-2140 USTS

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
RFA.....	199403.....	199409
CS.....	199403.....	199409
RFI/CMS.....	199403.....	200109
IRA.....	199506.....	200112
CMI(C).....	200109.....	200112
CMI(O).....	200201.....	201509
LTM.....	201510.....	201912

RIP Date: 200201

RC Date: 201510

SITE DESCRIPTION

Building P-2140 is an active AAFES gas station. In 1993 five fuel storage USTs were removed and three USTs were installed as replacements in a different area of the site. Contamination from prior activities was observed during excavation.

An SI completed in 1994 showed the dissolved portion of the plume migrating toward the Installation boundary. An RA for free-product recovery and groundwater treatment was initiated in FY95. Approximately 1,400 gallons of free-product have been recovered. This system has since been replaced by a DPE system in the source area.

In FY99 and FY00 the plume was further delineated and additional wells were installed. An air sparge (with ozone) pilot system was installed in January 2001. Sampling at the boundary detected BTEX and methyl tertiary-butyl ether (MTBE) contamination. Currently, two air sparging lines are installed in downgradient sections of the plume to address dissolved phase contamination. The system is operating effectively.

In January 2002 the full scale DPE pilot was installed to address separate phase contamination in the source area.

The CMS was completed and approved by the NYSDEC April 2004.

In FY05 an AAS with ozone was added in the source area to augment the DPE. The DPE and AAS systems are currently operational. The downgradient AAS with ozone system was shut down in March 2009 with concurrence of NYSDEC. In 2009 AAS ozone technology has been applied in the source area.

On Feb. 12, 2014 FTD received an Order on Consent and Administrative Action referencing corrective measures for Building P-2140 as in situ remediation of subsurface soils and ex situ treatment of collected soil vapor, in situ remediation of groundwater, removal of LNAPL, performance monitoring, and long term operation and maintenance(Appendix B page 49-50).

Bio remediation efforts through nutrient enhancement and injection of oxygenated water were attempted from 2011 through 2014.

CLEANUP/EXIT STRATEGY

Bio augmentation injections are anticipated in FY16 followed by sampling of groundwater (eight wells) FY17-19. Closure is expected in 2019, including well abandonment, system decommissioning, and site closeout documentation.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTD-001	HAZARDOUS WASTE STORAGE BLDG T-4819	198707	Consent Order dated February 12, 2014
FTD-002	DEFOLIANT TEST SITE	198608	Consent Order dated February 12, 2014
FTD-003	SEWAGE TREATMENT PLANT	199410	Consent Order dated February 12, 2014
FTD-004	NEW WASHRACK FACILITY	198707	Consent Order dated February 12, 2014
FTD-005	GARBAGE CAN WASHOUT FACILITY	198707	Consent Order dated February 12, 2014
FTD-006	WASHRACK HOLDING PONDS	198707	Consent Order dated February 12, 2014
FTD-009	FIELD DUMPS (SWMU FTD-09,15,16,17,19)	198707	Consent Order dated February 12, 2014
FTD-010	LANDFILL (OPER 1978-80)	198707	Consent Order dated February 12, 2014
FTD-011	LANDFILL (1950 LOCATION UNKNOWN)	198707	Consent Order dated February 12, 2014
FTD-012	ABANDONED LANDFILL NEAR DEFERIET	199705	Consent Order dated February 12, 2014
FTD-013	LANDFILL NEAR CARTHAGE CITY	198707	Consent Order dated February 12, 2014
FTD-014	CLOSED LANDFILL (NEAR FTD-013)	198707	Consent Order dated February 12, 2014
FTD-020	LANDFILL NEAR SOMERVILLE	198707	Consent Order dated February 12, 2014
FTD-022	EOD DISPOSAL SITE, BURN PITS (RANGE 17)	200306	Consent Order dated February 12, 2014
FTD-024	U.S. AIR FORCE EOD SITE (RANGE 35)	200306	Consent Order dated February 12, 2014
FTD-025	OLD HOSFORD SWIMMING POOL	199509	Consent Order dated February 12, 2014
FTD-027	POL SLUDGE BURIAL PIT	198707	Consent Order dated February 12, 2014
FTD-028	FIRE FIGHTER TRAINING AREA	199110	Consent Order dated February 12, 2014
FTD-030B	GASOLINE ALLEY - AREA 1395	201310	Consent Order dated February 12, 2014
FTD-030C	GASOLINE ALLEY - AREA 1495	201310	Consent Order dated February 12, 2014
FTD-031	BUILDING T-91	201310	Consent Order dated February 12, 2014
FTD-032	POL STORAGE UST (2) BLDG T-93	198107	Consent Order dated February 12, 2014
FTD-033	WASTE POL STORAGE UST BLDG T-198	198107	Consent Order dated February 12, 2014
FTD-072	NEW JERSEY ANG POND	200309	Consent Order dated February 12, 2014
FTD-073	NYANG MAINTENANCE SHOP	198707	Consent Order dated February 12, 2014
FTD-074	DOL BATTERY SHOP BLDG P-44	199709	Consent Order dated February 12, 2014
FTD-075	DOL MAINTENANCE SHOP	198707	Consent Order dated February 12, 2014
FTD-076	PESTICIDE/HERBICIDE STORAGE BLDG T-4002	199909	Consent Order dated February 12, 2014
FTD-077	HAZARDOUS WASTE STORAGE SITE BLDG S-2005	199310	Consent Order dated February 12, 2014
FTD-079	INFECTIOUS WASTE INCINERATOR	198707	Consent Order dated February 12, 2014
FTD-081	SPRAY BOOTH BLDG T-197	199303	Consent Order dated February 12, 2014
FTD-082	DRMO OFFICE (YARD)	198707	Consent Order dated February 12, 2014
FTD-083	PAINT DUMP	199306	Consent Order dated February 12, 2014
FTD-085	OLD POL DRYING BEDS	199705	Consent Order dated February 12, 2014
FTD-086	OLD POL STORAGE YARD	199303	Consent Order dated February 12, 2014
FTD-087	SAGE COMPLEX USTS	199707	NFA letter dated Nov 1997
FTD-088	BLDG T-4006 UST	200709	Consent Order dated February 12, 2014

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTD-089	BLDG 1245 UST	201310	Consent Order dated February 12, 2014
FTD-090	BLDG T-2180 UST	199409	Consent Order dated February 12, 2014
FTD-092	BLDG T-2195 UST	199506	Consent Order dated February 12, 2014
FTD-093	SAGE COMPLEX STORM SEWER OUTFALL	199711	NFA letter dated Nov 1997
FTD-094	FORMER PESTICIDE STORAGE BLDG S2517	199707	Consent Order dated February 12, 2014
FTD-110	AIRFIELD WATER TOWER	201309	Consent Order dated February 12, 2014
FTD-111	T-2161 WATER TOWER	201308	Consent Order dated February 12, 2014
FTD-112	TRAINING SITE POL CONTAM. NEAR RANGE 17	200409	Consent Order dated February 12, 2014
FTD-113	HAZARDOUS WASTE STORAGE BLDG 11144	199612	Consent Order dated February 12, 2014
PBA@FortDrum	PBA at Fort Drum	201412	

IRP Schedule

Date of IRP Inception: 198010

Past Phase Completion Milestones

1981

CS (FTD-002 - DEFOLIANT TEST SITE, FTD-003 - SEWAGE TREATMENT PLANT, FTD-030A - GASOLINE ALLEY - AREA 1295, FTD-030B - GASOLINE ALLEY - AREA 1395, FTD-030C - GASOLINE ALLEY - AREA 1495, FTD-030D - GASOLINE ALLEY - AREA 1595, FTD-030E - GASOLINE ALLEY - AREA 1795/WWII LANDFILL, FTD-030F - GASOLINE ALLEY - AREA 3805, FTD-031 - BUILDING T-91, FTD-032 - POL STORAGE UST (2) BLDG T-93, FTD-033 - WASTE POL STORAGE UST BLDG T-198)

PA (FTD-022 - EOD DISPOSAL SITE, BURN PITS (RANGE 17))

RFA (FTD-002 - DEFOLIANT TEST SITE, FTD-003 - SEWAGE TREATMENT PLANT, FTD-004 - NEW WASHRACK FACILITY, FTD-005 - GARBAGE CAN WASHOUT FACILITY, FTD-006 - WASHRACK HOLDING PONDS, FTD-007 - OLD SANITARY LANDFILL, FTD-008 - AIRFIELD SANITARY LANDFILL, FTD-009 - FIELD DUMPS (SWMU FTD-09,15,16,17,19), FTD-010 - LANDFILL (OPER 1978-80), FTD-011 - LANDFILL (1950 LOCATION UNKNOWN), FTD-013 - LANDFILL NEAR CARTHAGE CITY, FTD-014 - CLOSED LANDFILL (NEAR FTD-013), FTD-020 - LANDFILL NEAR SOMERVILLE, FTD-024 - U.S. AIR FORCE EOD SITE (RANGE 35), FTD-025 - OLD HOSFORD SWIMMING POOL, FTD-027 - POL SLUDGE BURIAL PIT, FTD-030A - GASOLINE ALLEY - AREA 1295, FTD-030B - GASOLINE ALLEY - AREA 1395, FTD-030C - GASOLINE ALLEY - AREA 1495, FTD-030D - GASOLINE ALLEY - AREA 1595, FTD-030E - GASOLINE ALLEY - AREA 1795/WWII LANDFILL, FTD-030F - GASOLINE ALLEY - AREA 3805, FTD-031 - BUILDING T-91, FTD-032 - POL STORAGE UST (2) BLDG T-93, FTD-033 - WASTE POL STORAGE UST BLDG T-198, PBA@FortDrum - PBA at Fort Drum)

1985

CS (FTD-007 - OLD SANITARY LANDFILL)

1986

RFI/CMS (FTD-002 - DEFOLIANT TEST SITE)

1987

RFA (FTD-001 - HAZARDOUS WASTE STORAGE BLDG T-4819, FTD-028 - FIRE FIGHTER TRAINING AREA, FTD-072 - NEW JERSEY ANG POND, FTD-073 - NYANG MAINTENANCE SHOP, FTD-074 - DOL BATTERY SHOP BLDG P-44, FTD-075 - DOL MAINTENANCE SHOP, FTD-076 - PESTICIDE/HERBICIDE STORAGE BLDG T-4002, FTD-077 - HAZARDOUS WASTE STORAGE SITE BLDG S-2005, FTD-079 - INFECTIOUS WASTE INCINERATOR, FTD-081 - SPRAY BOOTH BLDG T-197, FTD-082 - DRMO OFFICE (YARD), FTD-083 - PAINT DUMP)

CS (FTD-001 - HAZARDOUS WASTE STORAGE BLDG T-4819, FTD-004 - NEW WASHRACK FACILITY, FTD-005 - GARBAGE CAN WASHOUT FACILITY, FTD-006 - WASHRACK HOLDING PONDS, FTD-008 - AIRFIELD SANITARY LANDFILL, FTD-009 - FIELD DUMPS (SWMU FTD-09,15,16,17,19), FTD-010 - LANDFILL (OPER 1978-80), FTD-011 - LANDFILL (1950 LOCATION UNKNOWN), FTD-013 - LANDFILL NEAR CARTHAGE CITY, FTD-014 - CLOSED LANDFILL (NEAR FTD-013), FTD-020 - LANDFILL NEAR SOMERVILLE, FTD-024 - U.S. AIR FORCE EOD SITE (RANGE 35), FTD-025 - OLD HOSFORD SWIMMING POOL, FTD-027 - POL SLUDGE BURIAL PIT, FTD-028 - FIRE FIGHTER TRAINING AREA, FTD-072 - NEW JERSEY ANG POND, FTD-073 - NYANG MAINTENANCE SHOP, FTD-075 - DOL MAINTENANCE SHOP, FTD-076 - PESTICIDE/HERBICIDE STORAGE BLDG T-4002, FTD-077 - HAZARDOUS WASTE STORAGE SITE BLDG S-2005, FTD-079 - INFECTIOUS WASTE INCINERATOR, FTD-081 - SPRAY BOOTH BLDG T-197, FTD-082 - DRMO OFFICE (YARD), FTD-083 - PAINT DUMP)

SI (FTD-022 - EOD DISPOSAL SITE, BURN PITS (RANGE 17))

RFI/CMS (FTD-008 - AIRFIELD SANITARY LANDFILL)

1990

DES (FTD-008 - AIRFIELD SANITARY LANDFILL)

RFI/CMS (FTD-077 - HAZARDOUS WASTE STORAGE SITE BLDG S-2005)

1991

DES (FTD-077 - HAZARDOUS WASTE STORAGE SITE BLDG S-2005)

1992

RFA (FTD-087 - SAGE COMPLEX USTS, FTD-088 - BLDG T-4006 UST)

IRP Schedule

RFI/CMS	(FTD-028 - FIRE FIGHTER TRAINING AREA)
CS	(FTD-087 - SAGE COMPLEX USTS)
1993	
CS	(FTD-086 - OLD POL STORAGE YARD)
RFA	(FTD-086 - OLD POL STORAGE YARD)
RFI/CMS	(FTD-003 - SEWAGE TREATMENT PLANT, FTD-081 - SPRAY BOOTH BLDG T-197, FTD-083 - PAINT DUMP)
1994	
DES	(FTD-003 - SEWAGE TREATMENT PLANT, FTD-076 - PESTICIDE/HERBICIDE STORAGE BLDG T-4002)
RFA	(FTD-089 - BLDG 1245 UST, FTD-090 - BLDG T-2180 UST, FTD-091 - BLDG P-2140 USTS, FTD-093 - SAGE COMPLEX STORM SEWER OUTFALL)
CS	(FTD-074 - DOL BATTERY SHOP BLDG P-44, FTD-088 - BLDG T-4006 UST, FTD-089 - BLDG 1245 UST, FTD-090 - BLDG T-2180 UST, FTD-091 - BLDG P-2140 USTS)
RFI/CMS	(FTD-076 - PESTICIDE/HERBICIDE STORAGE BLDG T-4002)
CMI(C)	(FTD-077 - HAZARDOUS WASTE STORAGE SITE BLDG S-2005)
1995	
RFA	(FTD-092 - BLDG T-2195 UST, FTD-110 - AIRFIELD WATER TOWER, FTD-111 - T-2161 WATER TOWER, FTD-113 - HAZARDOUS WASTE STORAGE BLDG 11144)
CS	(FTD-092 - BLDG T-2195 UST, FTD-093 - SAGE COMPLEX STORM SEWER OUTFALL, FTD-110 - AIRFIELD WATER TOWER, FTD-113 - HAZARDOUS WASTE STORAGE BLDG 11144)
IRA	(FTD-030D - GASOLINE ALLEY - AREA 1595)
DES	(FTD-072 - NEW JERSEY ANG POND)
RFI/CMS	(FTD-025 - OLD HOSFORD SWIMMING POOL, FTD-031 - BUILDING T-91, FTD-072 - NEW JERSEY ANG POND, FTD-087 - SAGE COMPLEX USTS, FTD-093 - SAGE COMPLEX STORM SEWER OUTFALL)
CMI(C)	(FTD-003 - SEWAGE TREATMENT PLANT)
1996	
DES	(FTD-074 - DOL BATTERY SHOP BLDG P-44, FTD-087 - SAGE COMPLEX USTS, FTD-093 - SAGE COMPLEX STORM SEWER OUTFALL)
RFI/CMS	(FTD-024 - U.S. AIR FORCE EOD SITE (RANGE 35), FTD-074 - DOL BATTERY SHOP BLDG P-44)
RI/FS	(FTD-022 - EOD DISPOSAL SITE, BURN PITS (RANGE 17))
CMI(C)	(FTD-087 - SAGE COMPLEX USTS)
1997	
CS	(FTD-012 - ABANDONED LANDFILL NEAR DEFERIET, FTD-085 - OLD POL DRYING BEDS, FTD-094 - FORMER PESTICIDE STORAGE BLDG S2517, FTD-112 - TRAINING SITE POL CONTAM. NEAR RANGE 17)
CMI(C)	(FTD-072 - NEW JERSEY ANG POND, FTD-074 - DOL BATTERY SHOP BLDG P-44, FTD-076 - PESTICIDE/HERBICIDE STORAGE BLDG T-4002, FTD-093 - SAGE COMPLEX STORM SEWER OUTFALL)
RFA	(FTD-012 - ABANDONED LANDFILL NEAR DEFERIET, FTD-085 - OLD POL DRYING BEDS, FTD-094 - FORMER PESTICIDE STORAGE BLDG S2517, FTD-112 - TRAINING SITE POL CONTAM. NEAR RANGE 17)
1998	
RFI/CMS	(FTD-112 - TRAINING SITE POL CONTAM. NEAR RANGE 17)
1999	
IRA	(FTD-007 - OLD SANITARY LANDFILL, FTD-089 - BLDG 1245 UST, FTD-112 - TRAINING SITE POL CONTAM. NEAR RANGE 17)
CMI(C)	(FTD-008 - AIRFIELD SANITARY LANDFILL)
LTM	(FTD-076 - PESTICIDE/HERBICIDE STORAGE BLDG T-4002)
2001	
RFI/CMS	(FTD-030B - GASOLINE ALLEY - AREA 1395, FTD-030C - GASOLINE ALLEY - AREA 1495, FTD-091 - BLDG P-2140 USTS)

IRP Schedule

2002

CMI(C) (FTD-091 - BLDG P-2140 USTS)
 IRA (FTD-091 - BLDG P-2140 USTS)

2003

LTM (FTD-022 - EOD DISPOSAL SITE, BURN PITS (RANGE 17), FTD-024 - U.S. AIR FORCE EOD SITE (RANGE 35), FTD-072 - NEW JERSEY ANG POND)

2004

LTM (FTD-112 - TRAINING SITE POL CONTAM. NEAR RANGE 17)
 RFI/CMS (FTD-030E - GASOLINE ALLEY - AREA 1795/WWII LANDFILL)

2005

RFI/CMS (FTD-030D - GASOLINE ALLEY - AREA 1595, FTD-089 - BLDG 1245 UST)
 DES (FTD-030D - GASOLINE ALLEY - AREA 1595)

2006

DES (FTD-030F - GASOLINE ALLEY - AREA 3805)
 CMI(C) (FTD-030D - GASOLINE ALLEY - AREA 1595, FTD-031 - BUILDING T-91)
 RFI/CMS (FTD-007 - OLD SANITARY LANDFILL, FTD-030A - GASOLINE ALLEY - AREA 1295, FTD-030F - GASOLINE ALLEY - AREA 3805)

2007

LTM (FTD-088 - BLDG T-4006 UST)
 CMI(C) (FTD-007 - OLD SANITARY LANDFILL, FTD-030A - GASOLINE ALLEY - AREA 1295, FTD-030E - GASOLINE ALLEY - AREA 1795/WWII LANDFILL, FTD-030F - GASOLINE ALLEY - AREA 3805)
 DES (FTD-007 - OLD SANITARY LANDFILL, FTD-030A - GASOLINE ALLEY - AREA 1295, FTD-030E - GASOLINE ALLEY - AREA 1795/WWII LANDFILL)

2012

CMI(C) (FTD-030B - GASOLINE ALLEY - AREA 1395, FTD-030C - GASOLINE ALLEY - AREA 1495, FTD-089 - BLDG 1245 UST)
 CMI(O) (FTD-030B - GASOLINE ALLEY - AREA 1395, FTD-030C - GASOLINE ALLEY - AREA 1495, FTD-031 - BUILDING T-91, FTD-089 - BLDG 1245 UST)

2013

CS (FTD-111 - T-2161 WATER TOWER)
 IRA (FTD-111 - T-2161 WATER TOWER)

2014

LTM (FTD-030B - GASOLINE ALLEY - AREA 1395, FTD-030C - GASOLINE ALLEY - AREA 1495, FTD-031 - BUILDING T-91, FTD-089 - BLDG 1245 UST)

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: 201207

Schedule for Next Five-Year Review: 2015

Estimated Completion Date of IRP at Installation (including LTM phase): 204412

FORT DRUM IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-007	OLD SANITARY LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-008	AIRFIELD SANITARY LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-030A	GASOLINE ALLEY - AREA 1295	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-030D	GASOLINE ALLEY - AREA 1595	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-030E	GASOLINE ALLEY - AREA 1795/WWII LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-030F	GASOLINE ALLEY - AREA 3805	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTD-091	BLDG P-2140 USTS	LTM						

FORT DRUM
Army Defense Environmental Restoration Program
Compliance Restoration

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 14/11

Installation Site Types with Future and/or Underway Phases

3 Contaminated Ground Water
(CCFD-030G, CCFD-030H, CCFD-114)

Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern

Groundwater, Soil

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

Site ID	Site Name	Action	Remedy	FY
CCFD10168	P-10168	IRA	REMOVAL	2010
CCFD10170	P-10170	IRA	FREE PRODUCT RECOVERY	2010
CCFD10470	P-10470 East	IRA	FREE PRODUCT RECOVERY	2010
CCFD10580	P-10580	IRA	REMOVAL	2010
CCFD10660	P-10660	IRA	REMOVAL	2010
CCFD10660	P-10660 East	IRA	FREE PRODUCT RECOVERY	2010
CCFD10680	P10680 West	IRA	FREE PRODUCT RECOVERY	2010
CCFD4475E	4475 East	IRA	FREE PRODUCT RECOVERY	2010
CCFD4482	4482	IRA	REMOVAL	2010
CCFD4485E	4485 East	IRA	FREE PRODUCT RECOVERY	2010
CCFD10470	P-10470 West	IRA	FREE PRODUCT RECOVERY	2011
CCFD-030H	Gasoline Alley Area 1700	IRA	REMOVAL	2015

Duration of CR

Date of CR Inception: 199110

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201806/201806

Date of CR completion including Long Term Management (LTM): 201806

CR Contamination Assessment

Contamination Assessment Overview

Environmental restoration activities include the IRP and Military Munitions Response Program (MMRP). On Dec. 29, 2008, the Office of the Deputy Under Secretary of Defense for Installations and Environment [ODUSD(I&E)] issued an interim policy for Defense Environmental Restoration Program (DERP) eligibility that rescinded the 1986 eligibility date for the IRP and the 2002 eligibility date for the MMRP. This made many sites previously addressed in the Army's Compliance-related Cleanup (CC) program eligible for the DERP. Sites that are now eligible for the MMRP have been migrated from Army Environmental Database-CC (AEDB-CC) and given the naming convention of other Munitions Response (MR) sites. The newly eligible non-MR type sites are considered to be Installation Restoration (IR) sites; however, the newly eligible sites are being coded as Compliance Restoration (CR) in AEDB-R to distinguish them from the original IR sites and IR metrics.

In 2009 a total of 11 UST sites with POL contamination were migrated from the CC program to the CR program. Of these 11 sites, 10 were determined by NYSDEC to require NFA in late-2009. One of these UST sites (CCFD10470W) was actively remediated in-house by FTD, Environmental using vacuum pumping. All 11 UST sites are now NFA by NYSDEC.

In 2010 a new site (CCFD-030G) was added to the CR program when it was determined that solvent PCE contamination, previously identified in conjunction with monitoring at the FTD-030F site, was significant and likely had a different source than the contamination at FTD-030F. This site is currently in the RI phase in order to determine the nature and extent of the PCE contamination. In late 2010 a new site (CCFD-030H) with POL contamination was identified while installing light poles and was added to the CR program. An RI and excavation of soils were carried out in 2013. Groundwater testing occurred in 2014 and site closure is expected in 2015.

Cleanup Exit Strategy

Site CCFD-030G is currently in RI to determine the nature and extent of contamination. Following the RI, an FS will be completed to determine appropriate RAs. An RI/FS was initiated at a new site (CCFD-030H) in FY11 and an IRA (soil excavation) was approved by NYSDEC in 2012. Soil excavation was completed in 2013 and groundwater sampling completed 2014. Report was sent to NYSDEC 2015.

A new site CCFD-114 Well 9 contamination has been identified. The NYSDEC requested further investigation into low levels of contamination to ascertain the source. An RI is planned for 2015.

CR Previous Studies

2007	Title	Author	Date
	Tank Closure Summary 10168	TDK Environmental	AUG-2007
	Tank Closure Summary 10170	TDK Environmental	AUG-2007
	Tank Closure Report 10470E	TDK Environmental	AUG-2007
	Tank Closure Summary 10470W	TDK Environmental	AUG-2007
	Tank Closure Summary 10580	TDK Environmental	AUG-2007
	Tank Closure Summary 10660	TDK Environmental	AUG-2007
	Tank Closure Summary 10660E	TDK Environmental	AUG-2007
	Tank Closure Summary 10680W	TDK Environmental	AUG-2007
	Tank Closure Summary 4475E	TDK Environmental	AUG-2007
	Tank Closure Summary 4482	TDK Environmental	AUG-2007
	Tank Closure Summary 4485E	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10168	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10170	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10470E	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10470W	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10580	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10660	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10660E	TDK Environmental	AUG-2007
	Groundwater Investigation Report 10680W	TDK Environmental	AUG-2007
	Groundwater Investigation Report 4475E	TDK Environmental	AUG-2007
	Groundwater Investigation Report 4482	TDK Environmental	AUG-2007
	Groundwater Investigation Report 4485E	TDK Environmental	AUG-2007
2009	Sample Results Spreadsheet 10168, 10170, 10470E, 10470W, 10580, 10660, 10660E, 10680W, 4475E, 4482, 4485E	GOEL Services	AUG-2009
2010	Site Background Summary for the Fort Drum PCE Remedial Investigation for Solvent Contaminants	PARS	MAR-2010
	Final Work Plan for the Fort Drum PCE Remedial	PARS Environmental	NOV-2010
2011	Final Source Area Investigation Work Plan Addendum for the Fort Drum PCE Remedial Investigation for Solvent Contaminants	PARS Environmental Inc.	APR-2011
2012	Final Report Bench Scale Testing of Remedial Alternatives	PARS Environmental Inc.	MAR-2012

FORT DRUM
Compliance Restoration
Site Descriptions

Site ID: CCFD-030G

Site Name: Gasoline Alley - 1800, 1900 & 3800

STATUS

Regulatory Driver: CERCLA
Contaminants of Concern: Semi-volatiles (SVOC)
Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	199110.....	200901
SI.....	199610.....	200910
RI/FS.....	201003.....	201806

RIP Date: N/A
RC Date: 201806

SITE DESCRIPTION

CCFD-030G is located on and near Oneida/Ontario Avenues. There has been documented storage and use of hazardous materials, including solvents, both upgradient and crossgradient of the investigation area. An investigation of historical groundwater chemistry data associated with a BTEX plume at site FTD-030F has indicated the presence of dissolved-phase chlorinated solvents (specifically PCE) in the below the aquifer existing BTEX plume. The findings of the investigation also point to several potential upgradient sources of solvents associated with historical use and poor handling practices at buildings in the CCFD-030G area. In 2009, because the solvent contamination source is likely upgradient of the BTEX plume source and vertically separated from the BTEX plume and will require different remedial technologies, a new IRP site was established and in FY10 a site investigation (SI) to determine the nature and extent of the contamination was initiated and is ongoing.

The identified contaminant of concern is PCE; however, related solvents and relevant breakdown products may be present. It is suspected that releases from the site have contaminated soils and groundwater beneath the site and migrated northwesterly within FTD property. In addition, PCE contamination has been found at depth in the vicinity of the FTD-030F petroleum plume and FTD-007 OSL. An RI funded in FY10 to determine the nature and extent of PCE contamination is ongoing. An ISCO pilot study was completed in 2013. Another round of ISCO is planned for spring 2015 and a FS is expected fall 2015.

CLEANUP/EXIT STRATEGY

ISCO 2015, FS 2015 with hot spot treatment as needed.

Site ID: CCFD-030H
Site Name: Gasoline Alley Area 1700

STATUS

Regulatory Driver: CERCLA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	201009.....	201009
SI.....	201009.....	201506
IRA.....	201203.....	201506

RIP Date: N/A

RC Date: 201506

SITE DESCRIPTION

Gasoline Alley is located in the developed cantonment area on the southwest corner of FTD. The two-mile long thoroughfare consists of two parallel one-way streets, Oneida and Ontario Avenues, and an associated unpaved median, and is used as one of the main traffic routes. Vehicle and equipment storage and maintenance areas are located along the thoroughfare. Gasoline Alley has been used for fuel storage and dispensing at least since the 1940s. Nine fuel dispensing areas were located along Gasoline Alley where kerosene, gasoline, diesel fuel, and jet propellant (JP-4) were stored and dispensed from 22 USTs ranging in size from 5,000 to 25,000 gallons. The dispensing areas are referred to as areas 1195, 1295, 1395, 1495, 1595, 1795, 1895, 1995, and 3805. The USTs, fuel dispensers, and associated piping were removed in 1994 and 1995.

The CCFD-030H site is located in Area 1700 south of Ontario Ave. and west of Seventh St. West. The Pine Plains delta and surficial aquifer cover the southern one-third of FTD, and fine- to medium-grained sands of the Pine Plains Delta to depths of greater than 45 ft. are present in Gasoline Alley Area 1700. Although there is a groundwater divide south of the site and a secondary divide just east of the site, groundwater movement is thought to be northwest toward the Area 1795 Creek which is immediately west of the site and flows northwest to Remington Pond.

On Sept. 2, 2010, while installing light poles contamination was discovered at approximately six- to eight-feet below grade beneath an apparent fabric material. Test pits were installed in all four directions, approximately 15 feet from the initial pole installation point, and contamination was present in the soil and groundwater at several of these locations. Subsequent analytical results indicated "lube oil" contamination of 8700 mg/kg in the soil and 81 mg/l in the groundwater. The new site is upgradient of the existing FTD-030E Gasoline Alley Area 1795 site and upgradient of the presumed source of the Area 1795 contamination, USTs and piping associated with historic fuel dispensers along Gasoline Alley. This site has been assigned Spill No. 1006064 by NYSDEC.

An SI/IRA was conducted in 2013 and NYSDEC has asked for monitoring wells to be installed to confirm groundwater status. Wells were installed and samples were taken with the report sent to NYSDEC in winter 2015. Anticipate closure in 2015.

CLEANUP/EXIT STRATEGY

An IRA is underway. NFA is anticipated.

Site ID: CCFD-114
Site Name: Well 9 contamination

STATUS

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

Phases	Start	End
PA.....	200904.....	201003
RI/FS.....	201004.....	201709

RIP Date: N/A
RC Date: 201709

SITE DESCRIPTION

FTD noticed VOC contamination in samples taken from Well 9 of its potable well field. Subsequent investigation in 2011 using vertical profiling soil gas sampling and spring sampling did not find the source of the contamination.

NYSDEC requested further investigation into the source of contamination be conducted.

CLEANUP/EXIT STRATEGY

The cleanup/exit strategy will be determined when the investigation is complete.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCFD10168	P-10168	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD10170	P-10170	200912	NYSDEC Spill Closure Letter dated 14 December 2009
CCFD10470E	P-10470 East	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD10470W	P-10470 West	201106	NYSDEC Spill Report Form dated 1 February 2011
CCFD10580	P-10580	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD10660	P-10660	200912	NYSDEC Spill Closure Letter dated 14 December 2009
CCFD10660E	P-10660 East	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD10680W	P10680 West	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD4475E	4475 East	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD4482	4482	200911	NYSDEC Spill Closure Letter dated 10 November 2009
CCFD4485E	4485 East	200911	NYSDEC Spill Closure Letter dated 10 November 2009

CR Schedule

Date of CR Inception: 199110

Past Phase Completion Milestones

2006

ISC (CCFD10168 - P-10168, CCFD10170 - P-10170, CCFD10470E - P-10470 East, CCFD10470W - P-10470 West, CCFD10580 - P-10580, CCFD10660 - P-10660, CCFD10660E - P-10660 East, CCFD10680W - P10680 West, CCFD4475E - 4475 East, CCFD4482 - 4482, CCFD4485E - 4485 East)

2009

PA (CCFD-030G - Gasoline Alley - 1800, 1900 & 3800)

2010

IRA (CCFD10168 - P-10168, CCFD10170 - P-10170, CCFD10470E - P-10470 East, CCFD10580 - P-10580, CCFD10660 - P-10660, CCFD10660E - P-10660 East, CCFD10680W - P10680 West, CCFD4475E - 4475 East, CCFD4482 - 4482, CCFD4485E - 4485 East)

SI (CCFD-030G - Gasoline Alley - 1800, 1900 & 3800)

INV (CCFD10168 - P-10168, CCFD10170 - P-10170, CCFD10470E - P-10470 East, CCFD10580 - P-10580, CCFD10660 - P-10660, CCFD10660E - P-10660 East, CCFD10680W - P10680 West, CCFD4475E - 4475 East, CCFD4482 - 4482, CCFD4485E - 4485 East)

PA (CCFD-030H - Gasoline Alley Area 1700, CCFD-114 - Well 9 contamination)

2011

IRA (CCFD10470W - P-10470 West)

INV (CCFD10470W - P-10470 West)

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: 2015

Estimated Completion Date of CR at Installation (including LTM phase): 201806

FORT DRUM CR Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFD-030G	Gasoline Alley - 1800, 1900 & 3800	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFD-114	Well 9 contamination	RI/FS						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 200604

Restoration Advisory Board (RAB): No

Reason Not Established: The community has expressed no sufficient, sustained interest in a RAB.

Community Interest Solicited on: 200601

Efforts Taken to Determine Interest

The US Army has developed a community involvement plan for the FTD IRP (2006) to facilitate local community involvement in accordance with USEPA guidance, including the Superfund Community Involvement Handbook (USEPA 2002) and the RCRA Public Participation Manual (USEPA 1996). Interviews with local elected officials, agency personnel, and local residents were conducted to determine interest in establishing a RAB.

Results

A determination was made that a RAB was not needed at this time due to a lack of community interest.

Follow-up Procedures

The community relations plan recommended continued surveys of community interest in forming a RAB as long as there were sites without remedies-in-place. Two new CR sites that do not have remedies-in-place were recently added to the program. In 2014, when information about the nature and extent of contamination of these sites under investigation is available, FTD will again solicit the public's interest in forming a RAB.

Additional Community Involvement Information

The community relations plan is scheduled for an update in 2015.

Administrative Record is located at

Environmental Division
Public Works
Building T-4893
Fort Drum, NY 13602-5097
315-772-4211

Information Repository is located at

Environmental Division
Public Works
Building T-4893
Fort Drum, NY 13602-5097
315-772-4211

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

TAPP Title: N/A

Potential TAPP: N/A

