

# 883,

# BRAC CLEANUP PLAN VERSION 10

**Defense Depot Memphis, Tennessee** 



**Defense Logistics Agency** 





Air Force Center for Environmental Excellence Contract No. FA8903-04-D-8722 Task Order No. 0019

January 2007 Revision 1

### **EXECUTIVE SUMMARY**

#### **EXECUTIVE SUMMARY**

The Secretary of Defense, in cooperation with Congress, proposed a law to close bases and bring base structure in line with force structure. Public Law 100-526, enacted in 1988, created the Commission on Base Realignment and Closure (BRAC). The law charged the Commission with recommending installations for closure or realignment, based on independent study of the domestic military base structure. With subsequent passage of Public Law 101-510 under Title XXIX, enacted in 1990, Congress created the Defense BRAC Commission to provide a fair process for the timely closure and realignment of military installations. Public Law 101-510 provided for the BRAC Commission to meet in 1991, 1993, and 1995. The BRAC process identifies installations based on eight criteria, including military value, cost savings and return-on-investment, and the economic and environmental impacts of closure. In July 1993, the President of the United States announced his base closure community reinvestment program to help speed the economic recovery of communities affected by the U.S. Department of Defense's BRAC program. The BRAC 95 program has been developed in response to the President's program to limit delays in property reuse and transfer by changing the way cleanup is conducted (i.e., from a slow-paced, structured process to an accelerated, fluid process).

This BRAC Cleanup Plan (BCP) for the former Defense Distribution Depot Memphis, Tennessee, is being prepared under the BRAC 95 program. The BRAC process includes preparing an environmental baseline survey, Community Environmental Response Facilitation Act reports, sampling and analysis recommendations, and a BCP. The BCP process under the BRAC 95 program centers on a single goal: *expediting and improving environmental response actions in order to facilitate disposal and reuse of the Depot while protecting human health and the environment.* 

The BCP provides the status, management and response strategy, and action items related to the ongoing environmental restoration and associated compliance programs at the Depot. These programs support full restoration of the base property, where feasible, to meet the requirements for property transfer and reuse activities associated with closure of the installation.

The BCP is a planning document based on the best available, current information and is used to fulfill the Site Management Plan requirements of the Federal Facility Agreement signed by the Depot, U.S. Environmental Protection Agency, and State of Tennessee Department of Environment and Conservation. The information and assumptions presented may not necessarily have final approval from the base authorities and/or federal and state regulatory agencies. The BCP is a

### **EXECUTIVE SUMMARY**

dynamic document that will be updated periodically to reflect the current status and strategies of remedial actions. This document represents conditions and strategies as of 1 November 2006.

The following BCP abstract (Table ES-1) provides a summary of essential information contained in the BCP for the Depot. It includes summaries of the installation description, environmental condition of the property, reuse planning status, restoration program, compliance program, conservation program, issues for execution of the program, and projected fiscal year funding.

### TABLE ES-1 BRAC CLEANUP PLAN ABSTRACT FOR FY06

### Department of Defense Component Defense Logistics Agency

Installation Name:	Defense Distribution Center (Memphis)		Date Prepared:	200601	0
FFID:	TN-9715020570		BRAC Round:	IV	
Location:	Memphis, Tennessee		BRAC Type:	С	
INSTALLATION S Scheduled Operational	UMMARY Closure Date:		Date CERFA EBS Submitted:		199611
Actual Operational Clo	sure Date:	199709	Number of CERFA Acres Propose	ed:	57.43
			Number of CERFA Acres Concur	red:	57.43
Total Number of Install	ation Acres;	642	542 Date CERFA Concurrence Received:		199703/1998
			_	_	10
Acres Retained by Con	ponent:	0	_		
Acres to be Transferred	to another Component:	0	Date BCT Formed:		199512
Acres Planned for non-	DoD Federal Transfer:	0	Date Initial BCP Completed:	-	199611
Acres Planned for Non-	Federal Transfer:	642	Date of Last BCP Update:	_	200503
			Date RAB Established:		199402
Actual Acres Leased to	non-DoD Federal		Actual Acres Transferred to non-DoD Fed	ieral –	
Entity:	0		Entity:		46.74
Actual Acres Leased to	Non-Federal Entity: 578		Actual Acres Transferred to Non-Federal	Entity:	328.60

		Environmental Condition of Property					
Types of Acres	1	2	3	4	5	6	7
Acres according to CERCLA	0.93	0	58.60	412.73	0	169.74	0

Additional Environmental Considerations	Number of Acres
Petroleum, oils, and lubricants	8.01
Unexploded ordnance/Ordnance or explosives	0
Areas that require protection because of the presence of natural or cultural resources	56.03

Total Number of Acres Available for Transfer: Total Number of Acres Eligible for Disposal:

39.42 642

Activity	Installation Budget (\$000)								
	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13- Completion
Restoration	3087	4470	9099	5601	1152	1405	1107	1058	7446
Compliance	0	0	0	0	0	0	0	0	0
Planning	125	0	0	0	0	0	0	0	0
Management	645	110	682	420	86	63	50	48	335
TOTAL	3857	4580	9781	6021	1238	1468	1157	1106	7781

#### **REUSE PLANNING STATUS**

Name of LRA: Depot Redevelopment	Corporation of Memphis and Shelby County		
Status of the Redevelopment Plan: Cor	npleted and approved by LRA board, city and county	-	
Projected Date of Installation-Wide Disp	osal and Reuse EA/EIS:	- Type of NEPA:	
Actual Date of Installation-Wide Disposa	al and Reuse EA/EIS: 199803	Type of NEPA:	EA
Final Property Disposal Date: 201105		Actual/Projected	Projected

# Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

## TABLE ES-1 BRAC CLEANUP PLAN ABSTRACT FOR FY06

	FOST	FOSL
Cumulative NUMBER Completed	4	8
Cumulative ACRES Completed	422.22	578
NUMBER Projected in Next Fiscal Year	0	
ACRES Projected in Next Fiscal Year	0	

#### **RESTORATION PROGRAM**

#### Summary:

The EPA placed the Defense Depot Memphis, Tennessee (DDMT) on the National Priorities List on 14 October 1992. Contaminated media include soil, pond and lake sediment, and groundwater. USEPA and TDEC recognize 89 sites at the Depot including former landfill areas, former hazardous material/waste storage areas, former hazardous material recoup area, former wood treatment dip vat area, and former spray paint and sandblast facilities. In 1997, the Depot completed initial RI, Screening and BRAC site sampling, and in 2001 completed additional RI sampling to fill data gaps. Contaminants include benzene, PAHs, CT. CF, 1,1-DCE, 1,2-DCE, 1,1,2,2-PCA, 1,1,2-TCA, TCE, PCE, dieldrin, arsenic, lead, and copper and heavy metals. In 1998, the Depot completed a dieldrin contaminated soil removal action at the military family housing units and a PCB contaminated soil removal action at Bldg 274. Phase 1 of the Interim Remedial Action for Groundwater at Dunn Field was completed in 1998 with the installation of 7 recovery wells and the discharge piping system; the system was expanded in 2001, with 4 additional recovery wells. In 1999, the Depot completed a lead contaminated soil removal project at the old paint shop and maintenance area (Parcels 35 and 28). In 2001, the Depot completed the CWM removal action at Dunn Field and the Main Installation RI/FS reports. The Depot also completed the public comment period for the Main Installation (MI) Proposed Plan in 2001. DLA signed the MI ROD on 22 February 2001; TDEC signed it on 1 March 2001; and USEPA signed it on 6 September 2001. Prior to final execution of the ROD, DLA exercised its removal authority under CERCLA Section 104, as delegated in EO 12580, and removed lead contaminated soil at the south end of Bldg 949. The MI ROD includes enhanced bioremediation of fluvial aquifer groundwater and land use controls in the form of deed restrictions. The Depot completed pre-design groundwater fieldwork including an enhanced bioremediation treatment (EBT) treatability study at the MI in 2003. The Depot completed Dunn Field RI fieldwork in 1999. The Depot completed the Dunn Field RI report in 2002 and the FS in May 2003. The Depot completed the early removal of lead in soil at the former pistol range on Dunn Field in 2002. The Depot completed a soil vapor extraction (SVE) treatability study at Dunn Field in 2002, disposal site confirmation sampling in 2003, and a zero-valent iron (ZVI) injection pilot test in 2004. The Depot hosted a public comment meeting for the Dunn Field Proposed Plan in 2003. DLA signed the Dunn Field ROD on 22 March 2004; TDEC signed it on 6 April 2004; and USEPA signed it on 12 April 2004. The Dunn Field ROD includes excavation of select disposal sites, SVE for VOCs in the vadose zone, ZVI injection for groundwater contaminant source areas, PRB for off-site groundwater, and land use controls in the form of deed restrictions. In September 2004, the BCT concurred to initiate an early implementation of selected remedy to reduce groundwater contamination levels identified in monitoring wells northwest of Dunn Field until implementation of the final groundwater remedial action. The Depot completed the early implementation in January 2005 and completed associated groundwater sampling in March 2005. USEPA approved the Early Implementation of Selected Remedy Interim Remedial Action Completion Report in September 2005. On behalf of DDC, the CESAM filed the MI Notice of Land Use Restrictions with Shelby County Registrar on 26 January 2005. The Depot began the Dunn Field Disposal Sites RA in March 2005, but delayed completion until confirmation of substances found in intact glass bottles at Site 3. The Depot completed the Disposal Sites RA in March 2006 and received USEPA approval of the Disposal Sites Remedial Action Completion Report on 25 August 2006. The Depot completed the MI Remedial Action Work Plan (RAWP) in September 2005, began construction of the enhanced bioremediation treatment system in May 2006 and completed construction and began MI RA operations in September 2006. The Depot completed the Dunn Field Source Areas remedial design investigation in March 2006 and completed construction of the ZVI PRB implementation study in June 2006.

	Site Name	Date
Final Remedy in Place/Response Complete:	Site 4 - POL Burial Sites	201102
Long-Term Monitoring:	Site 4 - POL Burial Sites	202010

#### COMPLIANCE PROGRAM

#### Summary:

The following have been completed: Radon survey, Lead-Based Paint survey, Radiological survey, Natural/Cultural Resources survey and Asbestos re-inspection. All air permits were closed in 1996. The Depot removed the two remaining permitted underground storage tanks in July 1998 and closed the permits. TDEC terminated the hazardous waste container storage portion of the facility's RCRA Part B permit effective 22 October 1998. The Nuclear Regulatory Commission deleted this facility from the DDC's permit in 1999. TDEC terminated the facility's NPDES permit in June 2001. Discussions in 2004 between DLA, TDEC and USEPA Region 4 indicated that the HSWA portion of the RCRA permit, which was issued by USEPA and which

#### **Defense Distribution Center (Memphis)**

Rev. 1 BRAC Cleanup Plan Version 10

883 5

### TABLE ES-1 BRAC CLEANUP PLAN ABSTRACT FOR FY06

expired on 28 September 2001, remained in effect. Based on direction from USEPA and TDEC, DLA submitted a permit application for corrective action on 29 March 2004 and conducted a public meeting on 21 September 2004 to accept comments on the application. Based on further discussion with USEPA, DLA and DA (permitee) withdrew the application on 24 September 2004. On 19 January 2005, TDEC issued a Denial To Reissue the Hazardous Waste Corrective Action Permit, which terminated the requirement for the Depot to continue corrective action under the hazardous waste management regulations and noted that all corrective action activities would continue under CERCLA authority.

#### **CONSERVATION PROGRAM**

#### Summary:

No threatened or endangered species, protected habitats, wetlands, archeological, or Native American sites have been identified at the facility. Twenty warehouses and three guard buildings built in 1942 are eligible for placement on the National Register of Historic Places. The Army Materiel Command, Tennessee Historic Preservation Office and the Advisory Council for Historic Places signed the Memorandum of Agreement regarding preservation of these buildings.

#### FAST TRACK CLEANUP SUMMARY

#### Summary:

The BCT works very closely with the DRC to include reuse priorities in the decision-making process. The BCT also works very closely with each other and the contractors in determining appropriate investigation and remediation strategies. BRAC sampling was completed in 1997. Additional BRAC sampling requested by the BCT was completed in 1998. The BCT reviewed the data, determined future actions and made several parcel category changes. Although EPA concurred with the CERFA uncontaminated parcels letter reports dated March 1997 and July 1998, additional data collected since then regarding areas of groundwater contamination beneath the MI and Institutional Controls (ICs) required by the MI ROD for subparcels within FUs 1 through 6 (excluding Parcels 1 and 2) have resulted in subparcels reverting from ECP categories 1 through 4 to either Category 6 (above groundwater contamination) or Category 4 (ICs) (See Table 3-6 for more information). ATSDR completed the 1999 Public Health Assessment for the Defense Depot Memphis, Tennessee. DA signed FOST 1 for Parcel 2 on 23 February 2001. DA signed the deed for Parcel 2 (6.52 acres) on 26 September 2001. DA signed FOST 2 for Parcel 1 on 27 September 2001. DA signed the deed to the City of Memphis Police Department for 4.67 acres of Parcel 1 on 6 February 2002. DA signed the deed to the DRC for 13.36 acres of Parcel 1 on 6 May 2002. DA signed FOST 3 for all of Parcels 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 and portions of Parcels 23, 24, 29 and 33 on 1 July 2004. DA transferred the MI golf course (46.74 acres) to DOI/NPS via Letter of Assignment dated 29 September 2005; DOI/NPS to provide deed to City of Memphis in 2006. DA signed the deed for the remainder of the FOST 3 property (302.48 acres) to the DRC on 4 April 2006. DA signed FOST 4 for the eastern half of Dunn Field identified in the Dunn Field ROD as available for unrestricted reuse on 4 March 2005. On 2 September 2005, DA signed the deed to the City of Memphis for 1.57 acres of FOST 4 property for the Hays Road expansion project. DA transferred 17.66 acres of Dunn Field to DOI/NPS via Letter of Assignment dated 27 September 2005. In September 2005, the City of Memphis requested a public benefit conveyance through the DOI/NPS for the remaining FOST 4 property (21.76 acres). However, in December 2005 the City of Memphis declined the deed for the 17.66 acres of Dunn Field transferred to DOI/NPS and cancelled their request for the remaining FOST 4 property. On 28 July 2006, the CESAM on behalf of the DA offered the remaining FOST 4 property (39.42 acres) for public sale.

Cumulative CERFA Concurrence Acres:	Acres 57.43 (see above sum	mary)	Date 1998/10	
BCT Adjournment: RAB Adjournment: Early Transfer Authority:	Date		Actual/Projected	
	BCT REVIEW			
	F	Reviewed		
The BCP Abstract has been reviewed by the BCT	:	YES	NO	
DoD BEC: Mi	chael Dobbs	X		
	Name			
USEPA BCT Member: T1	rpin Ballard			
	Name			
State BCT Member:	Van Spann	X		
	Name			

<u>,</u>,,,,

Í

Ê

<u>ACRONYM</u>	DEFINITION
ACM	Asbestos-Containing Material
AFCEE	U.S. Air Force Center for Environmental Excellence
AMC	Army Materiel Command
AOC	Area of Concern
AR	Army Regulation
ARAR	Applicable or Relevant and Appropriate Requirement
AST	Aboveground Storage Tank
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
bgs	Below Ground Surface
BRAC	Base Realignment and Closure
CEHNC	U.S. Army Engineering and Support Center, Huntsville
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act, as
	amended
CERFA	Community Environmental Response Facilitation Act
CESAM	U.S. Army Corps of Engineers South Atlantic Division, Mobile
COC	Chemical of Concern
CSM	Conceptual Site Model
CT	Carbon Tetrachloride
CVOC	Chlorinated VOC
CWM	Chemical Warfare Materiel
DA	Department of the Army
DCE	Dichloroethene
DDC	Defense Distribution Center
DDMT	Defense Depot Memphis, Tennessee
DLA	Defense Logistics Agency
DOD	U.S. Department of Defense
DOI/NPS	U.S. Department of the Interior/National Park Service
DRC	Depot Redevelopment Corporation
DRMO	Defense Reutilization and Marketing Office
DSERTS	Defense Site Environmental Restoration Tracking System
EA	Environmental Assessment
EBS	Environmental Baseline Survey

Î

Ĵ

Î

ŕ

ĵ

ĵ

ÉBT	Enhanced Bioremediation Treatment
EDC	Economic Development Conveyance
EISR	Early Implementation of Selected Remedy
°F	Degrees Fahrenheit
feet/day	Feet per Day
FFA	Federal Facility Agreement
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
FSP	Field Sampling Plan
FU	Functional Unit
HR	Hazardous Substance Release or Disposal
HRS	Hazard Ranking System
HS	Hazardous Substance Storage
HSWA	Hazardous and Solid Waste Amendments of 1984
HUD	U.S. Department of Housing and Urban Development
IC	Institutional Control
IRA	Interim Remedial Action
IRACR	Interim Remedial Action Completion Report
LBP	Lead-Based Paint
LIFC	Lease in Furtherance of Conveyance
LRA	Local Reuse Authority
LTM	Long-Term Monitoring
LUC	Land Use Control
μg/L	Micrograms per Liter
MCL	Maximum Contaminant Level
MDRA	Memphis Depot Redevelopment Agency
MI	Main Installation
MNA	Monitored Natural Attenuation
MOA	Memorandum of Agreement
msl	Mean Sea Level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System

NPL	National Priorities List
NRHP	National Register of Historic Places
OPS	Operating Properly and Successfully
OU	Operable Unit
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
PL	Public Law
POL	Petroleum, Oil, and Lubricant
РР	Proposed Plan
PR	Petroleum Release or Disposal
PRB	Permeable Reactive Barrier
PS	Petroleum Storage
RA	Remedial Action
RAB	Restoration Advisory Board
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDI	Remedial Design Investigation
RFA	RCRA Facility Assessment
RG	Remedial Goals
RI	Remedial Investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SMP	Site Management Plan
SVE	Soil Vapor Extraction
SWMU	Solid Waste Management Unit
TCE	Trichloroethene
TDEC	Tennessee Department of Environment and Conservation
TNSHPO	Tennessee State Historic Preservation Officer
TRC	Technical Review Committee
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
•	

.

.....

-----

UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
ZVI	Zero-Valent Iron

5

.

# TABLE OF CONTENTS

EXECUTIVE SUMMARYI				
LIST OF ACRONYMSVI				
SECTION ONE	INTRODUCTION AND SUMMARY1-1			
1.1 1.2 1.3 1.4 1.5 1.6 1.7	ENVIRONMENTAL RESPONSE OBJECTIVES1-3BCP PURPOSE, UPDATES, AND DISTRIBUTIONS1-4BCT/PROJECT TEAM1-5SITE DESCRIPTION AND HISTORY OF INSTALLATION1-5OFF-BASE PROPERTY/TENANTS1-7ENVIRONMENTAL SETTING1-7HAZARDOUS SUBSTANCES AND WASTE MANAGEMENT1-13			
SECTION TWO	PROPERTY DISPOSAL AND REUSE			
2.1 2.2 2.3	STATUS OF DISPOSAL PLANNING PROCESS			
SECTION THREE	INSTALLATIONWIDE ENVIRONMENTAL PROGRAM STATUS			
3.1 3.2 3.3 3.4 3.5	ENVIRONMENTAL PROGRAM STATUS			
SECTION FOUR	INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION			
4.1 4.2 4.3 4.4	ZONE/OU DESIGNATION AND STRATEGY4-1COMPLIANCE PROGRAM STRATEGY4-3NATURAL AND CULTURAL RESOURCES STRATEGY4-5COMMUNITY INVOLVEMENT/STRATEGY4-6			
SECTION FIVE	ENVIRONMENTAL PROGRAM SCHEDULES			
5.1 5.2 5.3 5.4	ENVIRONMENTAL RESTORATION PROGRAM			
SECTION SIX	TECHNICAL AND OTHER ISSUES TO BE RESOLVED			
6.1 6.2 6.3 6.4 6.5	DATA USABILITY			

2

.

## TABLE OF CONTENTS

6.6	BASEWIDE REMEDIAL ACTION STRATEGY	6-3
6.7	GROUNDWATER INTERIM REMEDIAL ACTION AND LONG-	
	TERM GROUNDWATER MONITORING	6-3
6.8	EXCAVATION OF CONTAMINATED MATERIALS	6-3
6.9	PROTOCOLS FOR REMEDIAL DESIGN REVIEWS	6-3
6.10	CONCEPTUAL MODELS	6-4
6.11	CLEANUP STANDARDS	6-4
6.12	INITIATIVES FOR ACCELERATING CLEANUP	6-4
6.13	REMEDIAL ACTIONS	6-4
6.14	REVIEW OF SELECTED TECHNOLOGIES FOR	
	APPLICATION OF EXPEDITED SOLUTIONS	6-6
6.15	HOT-SPOT REMOVALS	6-6
6.16	IDENTIFICATION OF CLEAN PROPERTIES	6-6
6.17	OVERLAPPING PHASES OF THE CLEANUP PROCESS	6-6
6.18	IMPROVED CONTRACTING PROCEDURES	6-6
6.19	INTERFACING WITH THE COMMUNITY REDEVELOPMENT	
	PLAN	6-7
6.20	BIAS FOR CLEANUP INSTEAD OF STUDIES	6-7
6.21	EXPERT INPUT ON CONTAMINATION AND POTENTIAL	
	REMEDIAL ACTIONS	6-8
6.22	PRESUMPTIVE REMEDIES	6-8
6.23	PARTNERING (USING INNOVATIVE MANAGEMENT,	
	COORDINATION, AND COMMUNICATION TECHNIQUES)	6-8
6.24	UPDATING THE EBS AND NATURAL/CULTURAL	
	RESOURCES DOCUMENTATION	6-8
6.25	IMPLEMENTING THE POLICY FOR ON-SITE DECISION	
	MAKING	6-8
SECTION SEVEN	REFERENCES	74
		. / - 1

### List of Appendices

Appendix A	Fiscal Year Funding Requirements/Costs
Appendix B	Installation Environmental Restoration Documents Summary Table
Appendix C	Decision Document/Record of Decision Summaries
Appendix D	Findings of Suitability to Lease/Transfer Summaries
Appendix E	Administrative Record Index and other documents relevant to the BCP

### TABLE OF CONTENTS

#### **List of Tables**

- Table ES-1 BRAC Cleanup Plan (BCP) Abstract
- Table 1-1BCT/Project Team Members
- Table 3-1
   Potential Contamination Sites Associated With Operable Units
- Table 3-2Spill Response Summary
- Table 3-3 Removal Actions Summary
- Table 3-4 Underground Storage Tank Summary
- Table 3-5
   Aboveground Storage Tank Summary
- Table 3-6 BRAC Subparcel Descriptions
- Table 3-7
   Uncontaminated Category 1 Parcels
- Table 3-8
   Qualified Subparcel Descriptions
- Table 4-1 Environmental Document Status
- Table 5-1
   Major Milestones FY07 Through FY09

#### **List of Figures**

- Figure 1-1 Site Location Map
- Figure 1-2a Main Installation Functional Unit Location Map
- Figure 1-2b Dunn Field Area Location Map
- Figure 1-3 Surface Drainage Map
- Figure 1-4 Potentiometric Surface Map of Fluvial Aquifer
- Figure 2-1 Memphis Depot Redevelopment Plan
- Figure 3-1 OU-1 Site Locations
- Figure 3-2 OU-2 Site Locations
- Figure 3-3 OU-3 Site Locations
- Figure 3-4 OU-4 Site Locations
- Figure 3-5 Environmental Condition of Property Map, Main Installation
- Figure 3-6 Environmental Condition of Property Map, Dunn Field
- Figure 5-1 Projected Master Restoration Schedule

### 1.0 INTRODUCTION AND SUMMARY

This Base Realignment and Closure (BRAC) Cleanup Plan (BCP) for the former Defense Distribution Depot Memphis, Tennessee, (DDMT) was updated for the Defense Distribution Center (Memphis) as of 1 November 2006. This BCP will be used to fulfill requirements for a Site Management Plan (SMP) under the Federal Facility Agreement (FFA) dated 6 March 1995.

Located in Memphis, Tennessee (Shelby County), the Depot is in the south-central section of the city and encompasses approximately 642 acres. In March 1995, the BRAC Commission recommended the mission at the Depot end by 30 September 1997 and called for the assumption of its responsibilities by other installations. All 642 acres have been identified for transfer.

Past waste and resource management practices at the Depot contaminated some areas of the facility. Federal law requires federal agencies to investigate and clean up environmental contamination to a level that protects human health and the environment as part of the release and reuse of the property. The cleanup at the Depot is on track and addresses these past practices.

This BCP is a planning document that presents the status, strategy, and schedule for environmental restoration and compliance activities at the Depot. The BCP is based on the best information currently available. The information and schedules presented in this BCP were obtained from the BRAC Cleanup Team (BCT), which consists of representatives from the Defense Logistics Agency (DLA)/Defense Distribution Center (DDC), the U.S. Environmental Protection Agency (USEPA) Region 4, and the State of Tennessee Department of Environment and Conservation (TDEC) Division of Superfund. Because it was necessary to make certain assumptions in preparing this BCP, implementation programs and cost estimates could be significantly altered if environmental conditions and/or administrative decisions change from those assumed. Such changes, if they occur, will be reflected in updates to the BCP.

The BCP is organized into the following sections and appendices in accordance with the BRAC Cleanup Plan Guidebook (U.S. Department of Defense [DOD] 1996):

• Section 1 describes environmental restoration program objectives, explains the purpose of the BCP, introduces the BCT and project team formed to review the program, provides a brief installation history, and summarizes the site environmental setting.

#### INTRODUCTION AND SUMMARY

- Section 2 summarizes the current status of the Depot property disposal planning process, describes the relationship of the disposal process to other environmental programs, and summarizes potential and anticipated property transfer mechanisms.
- Section 3 summarizes the current status and past history of the Depot environmental restoration program, community relations activities that have occurred to date, and the environmental condition of the Depot property.
- Section 4 describes the Depot-wide strategy for environmental restoration and community involvement.
- Section 5 provides the master schedule of planned and anticipated activities to be performed throughout the duration of the environmental restoration program.
- Section 6 describes specific technical and/or administrative issues to be resolved and presents a strategy for resolving those issues.
- Section 7 lists the primary references used in preparation of the BCP.

The following appendices are included in this document:

- Appendix A contains Table A-1, presenting funding requirements.
- Appendix B contains Table B-1, summarizing environmental restoration program and other associated technical documents in chronological order.
- Appendix C contains summaries of removal action and interim remedial and remedial action (RA) decision documents.
- Appendix D contains summaries of Finding of Suitability to Lease (FOSL) and Finding of Suitability to Transfer (FOST) documents produced during this period.
- Appendix E contains Table E-1 Asbestos Identification Survey Results, the Administrative Record Site File Index, DLA Compliance with Executive Order 12898 on Environmental Justice, letters of regulatory concurrence on the Community Environmental Response Facilitation Act (CERFA) report, permit closure approval from the Nuclear Regulatory Commission, summaries of radiological surveys, radon survey test results, a transformer inventory and test results, a wetlands determination,

a Section 106 notification letter, subparcel designation letters to the BCT, termination of the National Pollutant Discharge Elimination System (NPDES) permit, termination of the hazardous waste container storage portion of the Resource Conservation and Recovery Act (RCRA) Part B permit from TDEC, and denial to reissue the hazardous waste corrective action permit from TDEC.

## 1.1 ENVIRONMENTAL RESPONSE OBJECTIVES

DDC is responsible for the management and overall implementation of environmental restoration programs at the Depot. The Department of Army (DA), Headquarters, Office of the Assistant Chief of Staff for Installation Management, BRAC Division represents the DA's interests in matters relating to BRAC property transfer issues and long-term DA responsibilities at the Depot. The U.S. Army Corps of Engineers (USACE) Engineering and Support Center, Huntsville, (CEHNC) supports removal and remedial design (RD) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The U.S. Air Force Center for Environmental Excellence (AFCEE) supports RAs at the facility through the Final Closeout Report.

DDC conducts the environmental restoration program in compliance with DLA, DA, DOD, local, state, and federal statutes and regulations, and in accordance with the FFA. Upon termination of material handling operations at the Depot in 1997 and completion of the Memphis Depot Caretaker operations in 2001, the operations-related environmental compliance program ended.

The combined objectives of the BCT, CEHNC, AFCEE and other supporting agencies for the environmental restoration program at the Depot are as follows:

- Protect human health and the environment;
- Continue compliance with existing statutes and regulations;
- Conduct ongoing environmental restoration program activities in accordance with CERCLA, as amended by the Superfund Amendments and Reauthorization Act (SARA), the State of Tennessee regulations, and other applicable regulations;
- Meet FFA schedules and deadlines;
- Continue efforts to identify all potentially contaminated areas and incorporate any new sites into the BCP, as appropriate;

### INTRODUCTION AND SUMMARY

- Establish priorities for environmental restoration and restoration-related compliance activities so that property disposal and reuse goals can be met;
- Complete the environmental restoration process as soon as practicable for each site, in an order of priority that takes into account both environmental concerns and redevelopment plans;
- Identify opportunities for selected removal actions to control, eliminate, or reduce risks to manageable levels;
- Continue to consider future land use when characterizing risks associated with releases of hazardous substance wastes;
- Conduct long-term RAs for groundwater and any necessary reviews to evaluate the progress of remediation;
- Establish interim and long-term monitoring plans for other RAs, as appropriate;
- Continue to identify and map the environmental condition of installation property with the intent of identifying areas suitable for transfer by deed;
- Conduct site-specific environmental baseline surveys (EBSs) as necessary to support transfer and lease of property;
- Meet requirements of the National Environmental Policy Act (NEPA) related to environmental restoration, property disposal, and reuse of the Depot; and
- Advise DA of property that is deemed suitable for transfer and properties that are not suitable for transfer because they are either not properly evaluated or pose an unacceptable human health or environmental risk.

# 1.2 BCP PURPOSE, UPDATES, AND DISTRIBUTIONS

This BCP is intended to:

Summarize the current status of the Depot's environmental restoration programs;

### INTRODUCTION AND SUMMARY

- Present a comprehensive strategy for implementing response actions necessary to protect human health and the environment;
- Present schedules for restoration and compliance activities; and
- Function as the annual update to the SMP, as required under the FFA dated 6 March 1995.

The strategy integrates activities being performed under the environmental restoration program to support full restoration of the Depot.

This BCP was prepared with information available as of 1 November 2006. Documents used to update the BCP can be found in Section 7. Additional information on the site history and environmental setting can be found in the 1996 EBS.

The BCP is a dynamic document that will be updated as needed to incorporate newly obtained information and reflect the completion or change in status of any cleanup actions. Updates of the BCP will be distributed to each member of the BCT, as well as to additional parties identified in Table 1-1.

### 1.3 BCT/PROJECT TEAM

The Depot BCT was established in December 1995 and usually meets on a monthly basis. BCT meetings are the means of conducting periodic program reviews and reaching consensus on decisions with federal and state regulators. A project team consisting of technical, operational, reuse, and administrative specialists, as needed, supports the BCT. Table 1-1 provides a list of the BCT and project team members and their roles and responsibilities.

### 1.4 SITE DESCRIPTION AND HISTORY OF INSTALLATION

This section describes the site and operations history of the Depot.

#### 1.4.1 Site Description

The Depot is located in the south-central section of Memphis in Shelby County, Tennessee (Figure 1-1). It comprises 642 acres, and can be divided into two geographical areas: the Main Installation (MI) and Dunn Field. The MI consists of 578 acres, and Dunn Field consists of 64 acres.

#### INTRODUCTION AND SUMMARY

The Depot was placed on the National Priorities List (NPL) in October 1992. The Depot has conducted environmental investigations and plans to conduct further environmental investigations under the requirements of CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). To assist further investigations at the Depot, representatives of the Depot, CEHNC, USEPA, and TDEC divided the facility into four potential Operable Units (OUs). Dunn Field, located north of the MI and identified as OU-1, is the only known and documented burial area on the Depot. The MI is divided into three OUs (2 through 4). OU-2 is located in the southwestern quadrant of the MI area of the Depot and is characterized as an industrial area where maintenance and repair activities took place. OU-3 is located in the southeastern quadrant of the MI area and contains the entire southeastern watershed and golf course. OU-4 is located in the north-central section of the MI area where material storage took place. The MI was divided into seven Functional Units (FUs) based on similar historical use for conducting baseline risk assessments (FUs 1 through 6, with groundwater being FU-7; Figure 1-2a). To assist investigations at Dunn Field, the Depot's contractors divided it into three Areas (Figure 1-2b) based on similar historical use and proposed reuse. The local reuse authority (LRA), originally known as the Memphis Depot Redevelopment Agency and now the Depot Redevelopment Corporation (DRC), assisted the Depot in further subdividing the Depot property into parcels and then parcels into subparcels to delineate buildings and CERCLA sites.

#### 1.4.2 Installation History and Mission

The 642 acres on which the Depot is located were originally used for producing cotton until purchased by the U.S. Army in 1940. The initial mission and function of the Depot were to provide stock control, storage, and maintenance services for the Army Engineer, Chemical and Quartermaster Corps. The installation was originally named Memphis General Depot, but has also been known as Memphis Quartermaster Depot, Memphis Army Service Forces Depot, and Memphis Army Depot.

During World War II, the Depot served as an internment center for 800 prisoners of war and performed supply missions for the Signal and Ordnance Corps. From 1963 until closure on 30 September 1997, the Depot was a principal distribution center for DLA (formerly the Defense Supply Agency) for shipping and receiving a variety of materials including hazardous substances (pesticides, swimming pool chemicals, and firearm cleaning and rust preventative chemicals); textile products; food products; electronic equipment; construction materials; and industrial, medical, and general supplies. The Depot received, warehoused, and distributed supplies common to all U.S.

military services in the southeastern United States, Puerto Rico, and Panama. Approximately 4 million line items were received and shipped by the Depot annually. The Depot shipped approximately 107,000 tons of goods a year.

### 1.5 OFF-BASE PROPERTY/TENANTS

There are no off-base properties or tenants associated with the Depot. For the EBS, an electronic record search of federal and state environmental databases was conducted for properties adjacent to the Depot. In addition, visual inspections by automobile were performed on properties and facilities adjacent to the Depot.

There are groundwater contaminants moving onto the facility, and there is a plume of groundwater contamination moving off Dunn Field to the west. In 2002, groundwater samples collected in monitoring wells upgradient of the southwest corner of the MI and from the northeast corner of Dunn Field contained detectable levels of chlorinated solvents. The contaminant concentrations in off-base wells near the southwest corner of the MI were significantly lower than those detected in wells on the facility; contaminant concentrations in additional samples collected for the MI long-term monitoring have provided similar results. In 2003, the Depot installed additional monitoring wells upgradient of Dunn Field and documented contaminant migration onto the site. In 2006, USEPA and TDEC initiated a preliminary assessment and installed monitoring wells to identify the source of contamination upgradient of Dunn Field, but have not yet identified the source.

In 2004, groundwater sampling results from monitoring wells downgradient of Dunn Field indicated a plume of volatile organic compounds (VOCs) at levels that prompted the BCT to initiate additional groundwater investigation. In September 2004, the BCT concurred to begin early implementation of the selected remedy to reduce contamination levels downgradient of Dunn Field. Zero-valent iron injections were made from November 2004 to January 2005 within the high-concentration portion of the plume to enhance effectiveness of the final soil and groundwater remedies.

### 1.6 ENVIRONMENTAL SETTING

This section describes the environmental setting of the Depot, including the physical setting, demographics, climatology, hydrology, geology, soils, and hydrogeology.

#### INTRODUCTION AND SUMMARY

#### 1.6.1 Physical Setting

The Depot encompasses 642 acres in the south-central section of Memphis, 4 miles southeast of the Central Business District and 1 mile north of Memphis International Airport (Figure 1-1). The facility is located in a mixed residential, commercial, and industrial land use area.

Generally, the Depot is described as consisting of two geographic areas — the MI and Dunn Field. The MI consists of 578 acres bordered by Airways Boulevard to the east, Perry Road to the west, Ball Road to the south, and Dunn Avenue to the north. The MI is highly developed and contains most of the buildings and material storage yards for the facility. At the time of closure, there were approximately 118 buildings, 26 miles of railroad tracks, and 28 miles of paved streets at the Depot. Approximately 126 acres were used for covered storage space, and approximately 138 acres were used for open storage space. Dunn Field is located to the north, across Dunn Avenue from the northwest quadrant of the MI. Dunn Field consists of 64 acres of mostly undeveloped land that was historically used for storage of bauxite and fluorspar and for waste disposal.

#### 1.6.2 Demographics

The Depot is located in an area of varying uses. Formerly a residential and agricultural area, the surrounding area is characterized by small commercial and manufacturing uses north and east of the Depot and single-family residences south and west of the Depot. Numerous small church buildings are scattered throughout the residential neighborhoods. Several schools and childcare facilities are located in the neighborhoods, as well as two neighborhood parks.

Airways Boulevard, located on the east border of the MI, is the most heavily traveled thoroughfare in the vicinity. It is developed with numerous small, commercial establishments, particularly in the area from the Depot south to the Airways Boulevard interchange with Interstate 240. Businesses along Airways Boulevard are typical of highway commercial districts and include convenience stores, liquor stores, restaurants, used car dealers, and service stations. Other commercial establishments are located north, south, and west of the Depot. Most are small groceries or convenience stores that serve their immediate neighborhoods. Memphis Light, Gas, and Water operates a large substation located northwest of the Depot along Person Avenue.

The Frisco Railroad and Illinois Central Gulf Railroad rail lines are north of the Depot. A number of large industrial and warehousing operations are located along the rail lines in this area, including the Kellogg Company; Laramie Tires; Lanigan Storage and Van Company; the Kroger Company; and

#### INTRODUCTION AND SUMMARY

the National Manufacturing Company, Incorporated. A triangular area located immediately north of the Depot along Dunn Road also contains several industrial firms.

Most of the land surrounding the Depot is highly developed; however, three relatively large, undeveloped sites exist in the general area. The largest site is located north of the Depot at Person Avenue and Kyle Street. The other undeveloped areas are located south of the Depot along Ball Road and Ketchum Road in the vicinity of the Orchid Manor Apartments, and east of the Depot along Dwight Street.

In Memphis, zoning controls and subdivision requirements are under the jurisdiction of the Memphis and Shelby County Office of Planning and Development. The Depot property is zoned Light Industrial. This designation extends to several contiguous land parcels located east of the Depot along Airways Boulevard, in the vicinity of the Kellogg plant west past Rozelle Street. Several smaller areas adjacent to those mentioned above are zoned Heavy Industrial. Most of the remaining land in the vicinity of the Depot is zoned for residential use.

The 2000 census data for Memphis and for Shelby County are listed below (National Census Report, 2000).

Location	2000 Census Data	
City of Memphis	606,109	
Shelby County	873,000	

#### 1.6.3 Climatology

The Depot is located in the West Tennessee Climatic Division of the United States. This division experiences a typical continental climate with warm, humid summers and cold winters. The average temperatures are 40 degrees Fahrenheit (°F) in the winter and 80°F in the summer. The Memphis area has a 30-year annual precipitation average of 50 inches. Normally, precipitation is heaviest during the winter and early spring. A second, less significant rainfall period occurs as thundershowers during late spring and early summer. The one-year, 24-hour average rainfall for the area surrounding the Depot is 3.4 inches. Prevailing winds are from the southwest.

#### INTRODUCTION AND SUMMARY

#### 1.6.4 Hydrology

Surface drainage at the Depot occurs by overland flow to swales, ditches, concrete-lined channels, and a storm drainage system. The majority of surface drainage at Dunn Field is achieved by overland flow to a storm drainage system that flows west of the facility (Figure 1-3). The northeast quadrant of Dunn Field drains to a concrete-lined channel that flows north. The MI's surface drainage is by overland flow to a storm drainage system. The concrete-lined channels and storm drainage system are directed to Nonconnah Creek or to either Tarrant Branch or Cane Creek, tributaries of Nonconnah Creek. Nonconnah Creek drains into Lake McKellar, a tributary of the Mississippi River. Where exposed, undisturbed surface soils are predominantly grassed, fine-grained, semi-cohesive materials that tend to promote rapid runoff. Paved and built-up sections of the facility also tend to generate significant runoff.

Topographically, most of the Depot is generally level with or above the surrounding terrain; therefore, the Depot receives little or no run-on from adjacent areas.

Two permanent surface water bodies exist at the Depot. The larger, Lake Danielson, is approximately 4 acres in size. Lake Danielson receives a significant amount of the facility's stormwater runoff, primarily from the area around the "20 Typicals" (Buildings 229, 230, 250, 329, 330, 349, 350, 429, 430, 449, 450, 529, 530, 549, 550, 629, 630, 649, and 650). Lake overflow is channeled through a drop inlet at the dam through a concrete-lined channel to a culvert extending beneath N Street and Ball Road. The smaller surface water body, the golf course pond, receives runoff from the surrounding golf course; the area around Buildings 249, 450, 251, 265, 270, and 271; and the south parking lot. Lake and pond overflow is directed to culverts extending beneath N Street and Ball Road and is then directed to Nonconnah Creek via unnamed tributaries.

#### 1.6.5 Geology and Soils

Topographically, the Depot is situated in an area of gently rolling loess hills. Most of the Depot terrain is fairly uniform, with elevations ranging from 282 to 300 feet above mean sea level (msl). Five distinct surface soil units have been mapped at the Depot: Falaya Silt Loam, Filled Land-Silty, Graded Land, Memphis Silt Loam, and Memphis Silt Loam 2. Surface soils at the developed portion of the MI primarily consist of filled land.

Geologically, the area around the Depot is located in the north-central part of the Mississippi embayment that is a broad, trough-like geologic structure that plunges to the south. The geologic

January 2007

### INTRODUCTION AND SUMMARY

units of interest at the Depot are (from youngest to oldest) loess deposits, fluvial deposits, Jackson Formation/Upper Claiborne Group, Cockfield and Cook Mountain Formations, and Memphis Sand.

The Quaternary-aged loess consists of brown to reddish brown low-plasticity clayey silt or lowplasticity silty clay and is continuous throughout the entire area. The loess deposits are generally 20 to 30 feet thick.

The Quaternary- and possibly Pliocene-aged fluvial deposits underlie the loess and consist of two general layers. The upper layer is silty, sandy clay that transitions to clayey sand. This layer ranges from about 10 to 36 feet thick. The lower layer, consisting of layers of sand, sandy gravel, and gravelly sand, has an average thickness of approximately 40 feet. A thick clay unit of the Jackson Formation/Upper Claiborne Group commonly underlies the fluvial deposits. The fluvial deposits represent the upper aquifer at the Depot, herein termed the "fluvial aquifer."

The Late Eocene-aged Jackson Formation/Upper Claiborne Group consists primarily of clays, silts, and sands. The upper clay unit of the Jackson Formation/Upper Claiborne Group occurs at variable elevations (224 feet at MW-126 to 164 feet at DR1-2) and is highly variable in thickness.

This clay layer does not appear to be present at the base of the fluvial deposits in the northwestern part of the MI and the southwestern part of Dunn Field. Water level data indicate that there may be gaps in the clay west and northwest of Dunn Field. Where present, these gaps create connections to the underlying intermediate aquifer from the fluvial deposits.

The Early to Middle Eocene-aged Memphis Sand consists primarily of thick-bedded, white to brown or gray, very fine-grained to gravelly, partly argillaceous and micaceous sand. Lignitic clay beds constitute a small percentage of total thickness. The Memphis Sand ranges from 500 to 890 feet in thickness, and the depth to the top of the Memphis aquifer in the Memphis area ranges from approximately 120 to 300 feet below ground surface (bgs). The City of Memphis obtains its drinking water from this unit; the Allen Well Field is located approximately 2 miles west of Dunn Field. The elevation of the Memphis Sand at the Allen Well Field is at approximately mean sea level. Only one monitoring well installed at the Depot, MW-67, is screened in the Memphis Sand; the upper surface of the Memphis Sand was identified at an elevation of 20.5 feet above msl.

# 883 25

#### INTRODUCTION AND SUMMARY

#### 1.6.6 Hydrogeology

There are only two surface water bodies on the Depot, Lake Danielson and the golf course pond. No perennial streams, flood-prone areas, or wetlands occur within the Depot. The lake and pond are fed by stormwater runoff and are too shallow to intercept the fluvial aquifer.

The Memphis area includes several aquifers of local and regional importance. In descending order, they are:

- Alluvial aquifer;
- Fluvial (terrace) aquifer;
- Intermediate aquifer; and
- Memphis aquifer.

The alluvial aquifer's distribution is limited to the channels of primary streams; therefore, it does not occur at the Depot. The uppermost aquifer at the Depot is the unconfined fluvial aquifer, consisting of saturated sands and gravelly sands in the lower portion of the fluvial deposits. Recharge to this unit is primarily from the infiltration of rainfall. Discharge from the fluvial aquifer is generally directed toward underlying units in hydraulic communication with the fluvial deposits, or laterally into adjacent stream channels. The fluvial aquifer provides water for domestic and farm wells in rural areas, but is not used as a drinking water source within the area surrounding the Depot.

The low-permeability uppermost clay of the Jackson Formation/Upper Claiborne Group serves as the base of the fluvial aquifer at most locations. This clay has very low permeability, with an average hydraulic conductivity of  $6.4 \times 10^{-8}$  centimeters per second. Where present, the clay constitutes a hydraulic barrier to downward migration of groundwater. Groundwater also exists in the vadose zone of the fluvial aquifer deposits usually above small clay lenses. These perched water zones are isolated, are probably ephemeral, and are not considered part of the fluvial aquifer.

The saturated thickness of the fluvial aquifer is variable across the Depot and is controlled by the configuration of the uppermost clay in the Jackson Formation/Upper Claiborne Group. The saturated thickness averages 10 to 20 feet, but ranges from 0 feet (dry) to 57 feet (in the central portion of the MI). Groundwater elevations in the fluvial aquifer in June 2004 ranged from 257.7 to 193.9 feet. In areas near gaps in the uppermost clay, groundwater appears to flow from the fluvial aquifer into the underlying intermediate aquifer, causing the fluvial aquifer to "pinch out". Areas of

#### INTRODUCTION AND SUMMARY

unsaturated conditions in the fluvial aquifer are created in these areas, with groundwater flow in the fluvial aquifer toward the low point(s) in the uppermost clay at the window.

Slug tests performed in the fluvial aquifer at the MI indicate that hydraulic conductivity values for the fluvial aquifer range from approximately 1 to 60 feet per day (feet/day). Assuming an effective porosity of 30 percent, flow velocities throughout the MI average 0.6 foot/day. The hydraulic conductivities for the fluvial aquifer measured at Dunn Field average 8 to 17 feet/day based on slug tests. Results from a 1992 pumping test at Dunn Field (MW-3) indicate an average hydraulic conductivity of 100 feet/day. In the fluvial aquifer, groundwater flow is roughly toward the east-northeast in the southwestern portion of the MI, to the southwest in the eastern portion of the MI, and to the west at Dunn Field.

The intermediate aquifer underlying the Depot is locally developed in permeable deposits of the Jackson Formation/Upper Claiborne Group, which also contain laterally extensive, thick deposits of clay. The lithologic logs of MWs 18, 40, 67, 82, and 83 show that the intermediate aquifer consists of interbedded sand, silt, and clay.

Aquifer tests conducted in August 1997 indicate that the hydraulic conductivity for the intermediate aquifer is similar to the fluvial aquifer with conductivities of 3.7 (MW-34) and 1.5 (MW-40) feet/day. Away from the influence of recharge from the fluvial aquifer, water level elevations in the intermediate aquifer are approximately 160 feet msl.

The Memphis aquifer contains groundwater under strong artesian (confined) conditions regionally. The City of Memphis obtains most of its drinking water from this unit. It receives most of its recharge from outcrop areas several miles east of Memphis. Some recharge is derived from overlying or hydraulically communicating units. Locally, extensive pumping has lowered water levels considerably. The Memphis aquifer is confined by overlying clays and silts in the Cook Mountain Formation (part of the Jackson/Upper Claiborne Group). Clays and silts of the Cook Mountain Formation were observed above the Memphis Sand in MW-67, which encountered the upper surface of the Memphis Sand at a depth of approximately 255 feet bgs (20.5 feet above msl). The potentiometric surface of the Memphis aquifer at MW-67 is approximately 160 feet above msl.

# 1.7 HAZARDOUS SUBSTANCES AND WASTE MANAGEMENT PRACTICES

Past activities conducted at the Depot include a wide range of storage, distribution, and maintenance practices. Historically, Dunn Field was used as a landfill; as a pistol range; for storage of mineral

#### INTRODUCTION AND SUMMARY

stockpiles; and for periodic testing of flamethrowers, smoke generators, and smoke pots using diesel fuel and fog oil. The pistol range building also was used for pesticide and herbicide storage. Mineral stockpiles were maintained for many years as part of the Defense National Stockpile. These stockpiles have been sold to private industry and removed. The primary activities conducted at the MI included material storage and shipping. Other activities conducted at the MI included hazardous substance repackaging for storage or shipment, sandblasting and painting, vehicle maintenance, polychlorinated biphenyl (PCB) transformer storage, pesticide and herbicide storage and use, and treatment of wood products with pentachlorophenol. During the 1940s and 1950s, a pistol range was located in the present golf course area.

#### 1.7.1 Hazardous Substance Activities

As a result of the Depot's past operations, large quantities of industrial chemicals or hazardous substances were received, stored, repackaged, and shipped. Some of these items were spilled or leaked at the MI or were buried at Dunn Field.

The following types of hazardous substances were received, stored, and shipped at the Depot:

- Flammable liquids
- Flammable solids
- Corrosives (acids and bases)
- Poisons (including insecticides)
- Compressed gases (nonflammable and flammable)
- Class C explosives
- Oxidizers
- Low-level radioactive materials (watch dials, compasses, smoke detectors, etc.)
- Other regulated substances

These substances were received as packaged commodities from manufacturers in containers that varied in size up to 55-gallon drums. While in storage, these substances were segregated by hazardous storage compatibility groups to ensure that optimum safety conditions were met (Harland Bartholomew & Associates, Inc. 1988).

Until 1985, mission chemical stock items in packages smaller than 55-gallon drums were stored in Building 629, which was constructed on a concrete foundation with seven bays separated by concrete walls and fire doors. Mission chemical stock items in 55-gallon drums were stored at open

#### INTRODUCTION AND SUMMARY

storage areas X02, X03, X11, X12, X13, X15, X17, X19, X21, X23, X25, and X27. Some mission chemical stock items also were stored in Building 319. In 1994, Building 319, Bays 1 and 2, became the hazardous waste storage area for the Defense Reutilization and Marketing Office (DRMO). Building 319 had a concrete berm and was situated on a concrete foundation with no floor drains. In the past, cyanide compounds were stored in a mechanically ventilated, separately bermed room, located in Bay 6 at the west end of the building. The building was equipped with explosion-proof lighting and spill booths of similar construction to those in Building 629. Hazardous substances requiring temperature-controlled environments and medical items classified as hazardous substances were stored in Building 359. Security control at Buildings 319 and 359 was stringent.

Beginning in 1985 and continuing until closure, the majority of mission chemical stock items in packages smaller than 55-gallon drums were stored in Building 835. This building was constructed on a concrete foundation without floor drains and contained five bays separated by concrete walls and fire doors. Spill booths containing absorbent materials and cleanup equipment were located in each bay area. The bays were marked to preclude incompatible chemicals being placed in the same bay.

The X25 area, located on the northwest side of the facility, was an open storage area with an earthen berm until a concrete bermed, concrete pad was built in approximately July 1976. The X25 area was used to store Class 1 flammable liquids. These liquids were usually stored in 55-gallon drums and included a wide range of industrial-grade organic solvents. A tension-fabric roof structure was constructed over the bermed, concrete pad in 1986 and stored flammable liquids in 55-gallon drums. Building 925 was built in 1994 over this area and was used for the storage of flammable liquids in 55-gallon drums.

Nonflammable petroleum, oil, and lubricant (POL) mission chemical stock items were stored in 55-gallon drums at open storage areas X11, X12, X13, and X15 and X17. Flammable mission chemical products such as chlorinated solvents and fuels in 55-gallon drums were stored at open storage areas X13, X15, X23, and X25. POL products for operations use (i.e., transformers and motor oil) were stored at open storage area X07 and at vehicle maintenance Buildings 253 and 770. Building 873 was an open-sided shed used for storage of mission POL products, acids, and corrosives, and for overflow mission chemical stock items. Until construction in 1985 of Building 865, the hazardous substance recoupment facility, hazardous substances in damaged containers were stored and repackaged at the south end of Building 873. Records also indicate that hazardous

substances were historically repackaged under a lean-to at the corner of E Street and 21st Street in open storage area X21, as well as at the southern end of open storage area X02 adjacent to Building 873.

#### 1.7.2 Waste Management Activities

From 1940 until 1948, an area at the southwest section of Dunn Field was used to landfill outdated or damaged food stocks and super tropical bleach. The northwest section of the Dunn Field area was used as the landfill site for unusable, nonhazardous subsistence stocks from the late 1940s to mid-1960s. Additionally, small quantities of hazardous substances (e.g., acids, mixed chemicals, and chemical agent identification sets) were buried in the northwest section Dunn Field. The Depot used municipal landfills for sanitary solid waste disposal. Small quantities of nonhazardous mission stock items such as sterile water, isotonic saline, and liquid soap were discharged to the sanitary sewer. The Depot normally obtained permission from the City of Memphis Public Works Department before discharging items into the sanitary sewer.

The Depot was a RCRA generator of hazardous wastes in Tennessee under generator No. TN 4210020570. The majority of hazardous wastes generated by the Depot consisted of hazardous substances that reached shelf-life expiration dates and could no longer be used by the military services, and from vehicle maintenance. The Depot also generated hazardous wastes from the cleanup of small hazardous substance spills. Of the approximately 100,000 hazardous substances transfers conducted per year at the Depot, only an estimated 50 transfers per year resulted in a spill or release. More than 90 percent of these events resulted from packaging failures during transport. The remaining events were attributed to accidents during handling at the Depot (Harland Bartholomew & Associates, Inc. 1988).

The former Defense Property Disposal Office was redesignated as DRMO. The DRMO was a tenant of the Depot and provided property disposal services for hazardous substances and hazardous wastes generated by the Depot, the Naval Air Station Millington, and the Air Force Air National Guard. The DRMO maintained 90-day storage in Building 308 under interim status with the intention of constructing a Conforming Storage Facility; however, construction did not occur prior to closure. Hazardous substances in the DRMO's possession were stored in Building 308 until 1994, when TDEC approved two bays of Building 319 for hazardous waste storage and DRMO moved their operations. The original Part B RCRA permit issued by TDEC on 28 October 1990 for a hazardous waste storage facility was terminated by TDEC on 22 October 22 1998 upon request of the Depot because the unit was not constructed or operated. The Hazardous and Solid Waste

#### INTRODUCTION AND SUMMARY

Amendments of 1984 (HSWA) portion of the RCRA permit was issued by USEPA Region 4 on 28 October 1990 for the purpose of RCRA corrective action for releases from solid waste management units (SWMUs). Based on requirements of TDEC and USEPA, the Depot submitted a corrective action permit renewal application on 29 March 2004. On 19 January 2005, TDEC issued DDC a Denial to Reissue the Hazardous Waste Corrective Action Permit, which terminated the Depot's requirement to continue corrective action under the hazardous waste management regulations and noted that all corrective action activities shall continue to be performed under CERCLA authority.

883 31





Figure 1-1 Memphis Depot location within the Memphis Metropolitan Area BRAC Cleanup Plan Version 10

E072001017/01.1 Dunn128/FH3

CH2MHILL








# 883 36

# TABLE 1-1 BRAC CLEANUP TEAM/PROJECT TEAM MEMBERS

N	IAME	AFFILIATION	TELEPHONE NUMBER	ROLE/ RESPONSIBILITY
BRAC Cleanup Team Members				
Michael Dobbs		DDC	(717) 770-6950	BEC/DLA Representative, DDC Chief, Environmental Safety and Occupational Health
Evan Spann		TDEC DoR	(901) 368-7916	TDEC Representative
Turpin Ballard		EPA Region IV	(404) 562-8553	EPA Representative
Project T	eam Members (	* indicates people on BR	AC Cleanup Plan dist	ribution list)
* Bruce Railey		CEHNC	(205) 895-1638	RD Program Manager
* Roy Shrove		AFCEE	(210) 536-2433	Lead Contracting Officer for Non-Air Force Funding Lines
Glen Turney		e²M	(210) 348-6000	RA Contractor Program Manager
Angela McMath		e <sup>2</sup> M	(404) 799-1046	RA Contractor Business Area Manager
*Tom Holmes		e <sup>2</sup> M	(404) 237-3982	RA Contractor Technical Project Manager
Steven Herrera		e <sup>2</sup> M	(916) 852-7792	RA Contractor Lead Engineer
*David Nelson		CH2M Hill	(770) 604-9182 *:	394 RD Contractor Program Manager
Mike Perlmutter		CH2M Hill	(770) 604-9182 *(	645 RD Contractor Lead Engineer
Kelly Anderson		Frontline	(888) 848-9898	Corporate Communications PM
Alma Moore		Frontline	(901) 544-0613	Community Relations Specialist
*John Miller		Mitretek	(703) 610-2560	Peer Review Contractor PM
BRAC CI	eanup Plan dist	tribution list (in addition t	o BRAC Cleanup Tea	m/Project Team)
Richard Isaac		AEC	(410) 436-6823	AEC Representative
Tom Lederle		DA	(757) 788-4350	DA BRAC Office
Jeanne Masters		DLA	(703) 767-2672	DLA BRAC Office
Dennis Lillo		DLA	(703) 767-6241	DLA Environmental Office
Ron Marichak		DDC	(717) 770-7760	DDC BRAC Office
Jackie Noble		DDC	(717) 770-6223	DDC Public Affairs Officer
Jim Covington		DRC	(901) 942-4939	President
Notes:				
AEC:	U.S. Army Environmental Center		DoR: D	ivision of Remediation
AFCEE:	U.S. Air Force Center for Environmental Excellence		ence DRC: D	epot Redevelopment Corporation
BEC: BRAC Environmental Coordinator		e²M ei	nvironmental-engineering Management, Inc.	
BRAC: Base Realignme		nt and Closure	EPA: E	nvironmental Protection Agency
CEHNC: U.S. Army Corps		of Engineers, Huntsville	TDEC: T	ennessee Department of Environment and Conservation

PM:

RA

RD.

Program Manager

Remedial Action

**Remedial Design** 

 DDC:
 Defense Distribution Center

 DLA:
 Defense Logistics Agency

Department of Army

DA:

# 883 37

#### SECTION TWO

# 2.0 PROPERTY DISPOSAL AND REUSE

This section describes the status and strategy for real property disposal, as well as the relationship between environmental cleanup efforts and anticipated or known reuse activity and property transfer methods.

# 2.1 STATUS OF DISPOSAL PLANNING PROCESS

In March 1995, the BRAC Commission recommended the following closure action at the Depot:

• Disestablish DDMT of DLA and relocate the Depot's functions and material to other defense distribution depots.

Pursuant to Public Law (PL) 101-510 and BRAC 95, DA identified 642 acres at the Depot that would be excess to its needs following closure. The Depot ceased mission operations on 30 September 1997.

DA and DLA initiated the BRAC parcel transfer process for the Depot and coordinated actions with the LRA. This process involves three interrelated activities: (1) preparing a redevelopment plan; (2) developing a disposal process; and (3) meeting requirements of the NEPA process. The design of this three-part disposal process integrates goals held by DA, DLA, the City of Memphis, and Shelby County to provide for the efficient transfer of the Depot mission within DLA, and to minimize the impact of closure on the community.

#### 2.1.1 Redevelopment Plan

The reuse process began in 1995 when DOD and the Office of Economic Adjustment approached Memphis to form a reuse committee. Memphis and Shelby County created the Memphis Depot Redevelopment Agency (MDRA) under the auspices of the Memphis/Shelby County Office of Planning and Development. MDRA with its board of directors acted as the LRA, representing a broad spectrum of community interests in the reuse of the Depot. MDRA completed the redevelopment planning process in April 1997 with completion and approval of the Memphis Depot Redevelopment Plan (Figure 2-1).

In April 1997, the Depot Redevelopment Corporation (DRC) formed as a public corporation to implement the plan developed by MDRA. DRC is chartered under Tennessee law and recognized

by the federal government as the LRA to enter into agreements with the federal government for lease or conveyance of the Depot property.

Memphis and Shelby County authorities approved the Memphis Depot Redevelopment Plan in March 1997. The BCT reviewed this plan and incorporated it in plans for site restoration. The U.S. Department of Housing and Urban Development (HUD) completed a review and approved the redevelopment plan for homeless consideration in September 1997. In addition to identifying the general land use for the future of the property, the Memphis Depot Redevelopment Plan provides an implementing strategy for DRC.

MDRA set the following goals for redevelopment, and DRC continues to support these goals:

- Maintain overall community public health as the first priority in environmental remediation work;
- Maximize community employment, wages, and capital investment through redevelopment of the Depot and the surrounding area, commencing immediately;
- Place highest priority on attracting new or expanding businesses to the Memphis market area rather than on relocating existing businesses already in the Memphis market area;
- Encourage new businesses at the Memphis Depot Business Park to hire Depot employees and local community residents;
- Improve the local quality of life by using Depot facilities to meet community needs and by ensuring that redevelopment is compatible with the surrounding areas; and
- Generate early cash flow through interim leases and other means of support maintenance, improvements, and marketing efforts.

#### 2.1.2 Disposal Process

The disposal process for the Depot considers BRAC requirements and environmental cleanup schedules, DA transfer goals, and the redevelopment planning goals of the local community. The process incorporates relevant DA BRAC transfer hierarchy requirements established by PL 100-526

and the Federal Property and Administration Services Act, the Surplus Property Act, the Federal Property Management Regulations, and the 1994 Defense Authorization Act as amended.

The process includes the following actions:

- Offer facility to DOD agencies for use.
- Offer facility to other federal agencies.
- Offer facility under the 1994 Redevelopment Act (excluding property taken by DOD agencies) to sponsoring organizations and qualified homeless assistance providers.
- Offer facility to state and local government agencies through public benefit discount conveyance.
- Offer facility to a redevelopment agency at or below fair market value through an economic development conveyance.
- Offer the property for negotiated or competitive bid sale to the private sector.

The Base Closure Community Redevelopment and Homeless Assistance Act of 1994, signed into law on 25 October 1994, and Title XXIX of the 1994 Defense Authorization Act amended this process as it pertains to homeless, state, and local screening. These pieces of legislation exempt BRAC properties from screening under McKinney Act provisions. They do, however, require that the needs of the homeless be considered during the reuse planning process and that these needs be balanced with the need for further economic redevelopment. Approval of the Memphis Depot Redevelopment Plan by HUD in September 1997 concluded this requirement for homeless consideration.

In September 1997, prior to property transfer, DA provided DRC with a Master Interim Lease for the MI. Properties became available for sublease by DRC through a series of FOSL documents prepared by DLA and approved by DA. FOSL 8 included all property on the MI that had not been included on a previous FOSL and was approved in August 1999. In March 2003, DA signed a supplemental agreement converting the Master Interim Lease to a Lease in Furtherance of Conveyance (LIFC) granting DRC immediate, exclusive, possessory interest in the leased properties and extending the term to a period of 50 years beginning 1 September 2002 and ending 31 August 2052. Since October 1997, DRC has completed 27 subleases accounting for the reuse of more than

4 million square feet of covered and uncovered facilities (94.1% of the MI) and the production of approximately 982 jobs.

On 23 February 2001, DA signed FOST 1 to transfer Parcel 2 to a veteran service organization sponsored by HUD. This parcel, consisting of 6.52 acres of land and seven buildings on the MI, will provide housing for veterans. DA signed the deed for this parcel on 26 September 2001. On 27 September 2001, DA signed FOST 2 for Parcel 1 consisting of 18.03 acres of land and six buildings, including the main administration building on the MI. DA signed the deed to the City of Memphis Police Department for 4.67 acres of Parcel 1 on 6 February 2002. DA signed the deed to the DRC for 13.36 acres of Parcel 1 on 6 May 2002.

On 1 July 2004, DA signed FOST 3 for all of Parcels 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22, and portions of Parcels 23, 24, 29, and 33, consisting of approximately 356.68 acres of land and 65 buildings on the MI. Two property transfer actions resulted from this FOST. On 29 September 2005, DA signed the Letter of Assignment transferring the golf course (46.74 acres) to the U.S. Department of the Interior/National Park Service (DOI/NPS). DOI/NPS will sign the deed transferring the golf course to the City of Memphis in 2006. On 4 April 2006, DA signed the deed transferring 302.48 acres of the MI to the DRC.

On 4 March 2005, DA signed FOST 4 for approximately 41.17 acres of Dunn Field, the area identified in the Dunn Field Record of Decision (ROD), effective 12 April 2004, as available for unrestricted reuse. On 2 September 2005, DA signed the deed transferring 1.57 acres to the City of Memphis for the Hayes Road expansion project. On 27 September 2005, DA signed a Letter of Assignment transferring the northeast portion of Dunn Field (17.66 acres) to DOI/NPS. The final parcel of FOST 4 (21.76 acres on the eastern side of Dunn Field) was originally to be transferred to the City of Memphis/Memphis Area Transportation Authority; however, on 16 September 2005, the City of Memphis requested that DOI/NPS transfer the property via public benefit conveyance for recreational reuse. On 20 December 2005, the City of Memphis notified DOI/NPS that they had declined the deed for the 17.66-acre parcel and would not submit an amendment to their approved application to acquire the adjacent 21.76-acre parcel. DOI/NPS returned ownership of the property to DA because DOI does not have legal authority to retain accountability for property rejected by the end recipient. On 28 July 2006, CESAM on behalf of DA offered the remaining FOST 4 property (39.42 acres) for public sale. As of 1 November 2006, CESAM had received two bids for the property that were declined by DA as the bids were below market value. CESAM planned to continue the public sale process.

#### PROPERTY DISPOSAL AND REUSE

#### 2.1.3 National Environmental Policy Act (NEPA) Documentation

To comply with NEPA, a disposal and reuse environmental assessment (EA) for the Depot was prepared by CESAM. The EA process began in April 1996 with a scoping meeting conducted on 23 July 1996. A scoping report was completed in October 1996. The final EA for the Master Interim Lease, which included a description of the proposed disposal action and alternatives, was completed in October 1996. In March 1997, DRC submitted the final Memphis Depot Redevelopment Plan to CESAM for consideration of the impacts of proposed reuse actions. The final EA for Disposal and Reuse was completed in February 1998, and DA signed a Finding of No Significant Impact on 13 March 1998. A 30-day public comment period began in March 1998. The public comment period was extended in response to a request by public comment. This extension period concluded in October 1998.

The EAs evaluated several disposal and reuse alternatives following DA policy on the preparation of DA disposal and reuse documents. The EA for Disposal and Reuse considered three disposal alternatives: Unencumbered Disposal, Encumbered Disposal, and Caretaker (No Action Alternative). The EA for Disposal and Reuse addressed three reuse scenarios identified in the Memphis Depot Redevelopment Plan: High Intensity Reuse, Medium Intensity Reuse (best reflected the goals of the Memphis Depot Redevelopment Plan), and Low Intensity Reuse.

#### 2.1.4 Disposal/Reuse Progress

Consistent with proposed community reuse goals, the disposal process at the Depot is underway. The following actions have occurred:

- Closure actions at the Depot began immediately after the BRAC 95 decision and culminated with the cessation of mission operations on 30 September 1997.
- A government caretaker force retained several facilities until June 2001.
- DA prepared and published a report of excess.
- Federal screening to identify facility uses by other non-DOD entities was completed in March 1996.
- Homeless assistance screening was completed, and HUD approved the redevelopment plan in September 1997. This included four military housing units

to be used by a local homeless provider and one warehouse (Building 972) to be used by a homeless assistance provider.

- On 23 February 2001, DA signed a FOST document sponsored by HUD to transfer Parcel 2 to a veteran service organization. This parcel, consisting of 6.52 acres of land and seven buildings, provides housing for veterans. DA signed the deed for this parcel on 26 September 2001.
- On 27 September 2001, DA signed a FOST for Parcel 1. This parcel consisted of 18.03 acres of land and six buildings, including the main administration building. DA signed the deed to the City of Memphis Police Department for 4.67 acres of Parcel 1 on 6 February 2002. DA signed the deed to DRC for 13.36 acres of Parcel 1 on 6 May 2002.
- On 4 March 2003, DA signed an LIFC giving DRC sole proprietary interest in the property on the MI pending transfer by deed.
- On 1 July 2004, DA signed a FOST for approximately 356.68 acres of land and 65 buildings on the MI. DA signed a Letter of Assignment to DOI/NPS for 46.74 acres (MI golf course) on 29 September 2005. DOI/NPS will sign the deed transferring the golf course to the City of Memphis in 2006. On 4 April 2006, DA signed the deed transferring 302.48 acres of the MI to the DRC.
- On 4 March 2005, DA signed a FOST for approximately 41.17 acres of land on Dunn Field. On 2 September 2005, DA signed the deed transferring 1.57 acres to the City of Memphis for the Hayes Road expansion project. DA signed a Letter of Assignment to DOI/NPS for 17.66 acres on 27 September 2005; however, that property was returned to DA because it was rejected by the intended end recipient, the City of Memphis. On 28 July 2006, CESAM on behalf of DA offered the remaining FOST 4 property (39.42 acres) for public sale. As of 1 November 2006, CESAM had received two bids that were rejected by DA as the bids were below market value. The property remains available for public sale.

# 2.2 RELATIONSHIP TO ENVIRONMENTAL PROGRAMS

Disposal and reuse activities at the Depot are linked to environmental investigation, restoration, and compliance activities for two reasons:

- Federal property transfers to non-federal parties are governed by CERCLA, Section 120(h)(3)(B)(i), Contents of Certain Deeds; and
- Residual contamination may remain on certain properties after RAs have been completed or put into place, thereby restricting or placing encumbrances on the future use of those properties.

Section 120(h)(3)(B)(i) of CERCLA requires deeds for federal transfer of previously contaminated property to contain a covenant that all RAs necessary to protect human health and the environment have been taken. The 1992 CERFA amendment to CERCLA provided clarification to the phrase "has been taken". This clarification stated that all RA has been taken if the construction and installation of an approved RD has been completed, and the remedy has been demonstrated to the Administrator to be operating properly and successfully. It further stated that the carrying out of long-term actions (e.g., groundwater pumping and treating) or operation and maintenance after the remedy has been demonstrated to the Administrator to be operative to the Administrator to be operative. Thus, any required remedial and/or removal response actions must be selected and implemented for such contaminated property on which a hazardous substance was stored for more than one year, released, or disposed include disclosure information on the type, quantity, and the time at which the storage or release occurred.

The requirement for complying with CERCLA, Section 120(h); the possibility of residual contamination at the Depot; and the remediation of the site according to future use are factored into the property disposal and reuse process at the Depot. This is accomplished in the following manner:

- Because the Depot experienced releases of CERCLA hazardous substances, it is subject to CERCLA transfer restrictions as described above.
- The environmental restoration program at the Depot uses the investigative and restoration processes of the CERCLA RA program. These processes include the completion of a remedial investigation (RI) and risk assessment according to future land use (industrial and recreational). The Memphis Depot Redevelopment Plan and the description of proposed action and alternatives in the final EA for Disposal and Reuse provide the best estimation of the future land use scenarios at the Depot.

#### PROPERTY DISPOSAL AND REUSE

- The Depot completed the MI RI in January 2000, and the MI ROD became effective on 6 September 2001. The Depot completed the Dunn Field RI in July 2002, and the Dunn Field ROD became effective on 12 April 2004. The risk assessment portions of each RI evaluated impacts on human health and the environment for current and potential on-site and off-site receptors based on the planned reuse. The RODs provide cleanup decisions that reflect the planned reuse.
- DLA solicited input from the community on proposed reuse scenarios and redevelopment plan implementation through communication with DRC and participation in the Restoration Advisory Board (RAB) process (see Section 3.5). Risk assessments considered the most current reuse plans and activities.
- The presence of residual contamination at the Depot after closure will be considered in the development of real estate transfer documentation. Remediation of contaminated groundwater at the Depot will continue well beyond the Depot's closure date of 30 September 1997. DOD will not transfer land until the CERCLA requirements are met. DOD and regulator access to leased or conveyed property for RAs and long-term monitoring (LTM) will be ensured through the establishment of easements and conditions or covenants in the real estate documents.
- The strategy and schedule for the Depot presented in this BCP are based upon the document review cycle timeframes provided in the FFA. Because of the need to differentiate between areas suitable for transfer and those that are not, DDC has developed maps showing the environmental condition of property using data from the base wide EBS (see text and figures in Section 3.4) and subsequent sampling results. DDC will continue to update and refine the maps showing the environmental condition of property suitable for transfer as data become available and site restorations are completed.

DDC considers a parcel available for transfer on the date when DA has signed the associated FOST. In order for a FOST to receive USEPA, TDEC, and DA approval, restoration activities must be complete and operating properly as determined by the USEPA Administrator.

On 4 March 2003, DA signed an LIFC for the MI property giving DRC sole proprietary interest pending transfer by deed. Because this method of transfer is not from one federal agency to another,

#### PROPERTY DISPOSAL AND REUSE

the transfer is governed by CERCLA. Section 120(h)(3)(B)(i) of CERCLA requires deeds for federal transfer of previously contaminated property to contain a covenant stating that all RAs necessary to protect human health and the environment have been taken. This deed requirement applies only to property on which a hazardous substance was stored for one year or more or where hazardous substances were disposed or released on the property. Thus, any required RAs and/or removal response actions must be selected, implemented, and shown to be operating properly and successfully for such contaminated properties before transfer to a non-federal agency can occur.

# 2.3 PROPERTY TRANSFER METHODS

This section contains a brief description of planned or final transfer decisions in the EA for Disposal and Reuse as well as the Memphis Depot Redevelopment Plan accepted by DA in September 1997. The various transfer methods being used or considered in the transfer process at the Depot are described in the sections below. These transfer methods were identified from DA BRAC disposal protocols established by PL 100-526, the Federal Property and Administration Services Act, the Surplus Property Act, the Federal Property Management Regulations, and the 1994 Defense Authorization Act. The status of each of the transfer methods is identified. Transfer methods that are not currently being considered but that could be used in future disposal-planning actions at the Depot are also identified.

#### 2.3.1 Federal Transfer of Property

Screening of the Depot property for use by other federal agencies was completed in March 1996. As of 1 November 2006, no other federal agencies identified a need for the Depot property.

#### 2.3.2 No-Cost Public Benefit Conveyance

State or local government entities may obtain property at no cost or less than fair market value when sponsored by a federal agency for uses that would benefit the public (e.g., health and education, parks and recreation, wildlife conservation, or public health). As of October 1998, DA screened the Depot properties for eligible state and local interests. Formal requests were received from the Department of Education, the Department of Justice, the Department of Transportation, and DOI/NPS.

On 1 July 2004, DA signed FOST 3. On 29 September 2005, DA signed a Letter of Assignment transferring 46.74 acres (MI golf course) to DOI/NPS, which will sign the deed transferring the golf course to the City of Memphis in 2006.

#### PROPERTY DISPOSAL AND REUSE

On 4 March 2005, DA signed FOST 4 that was to result in three public benefit conveyances. On 2 September 2005, DA signed the deed transferring 1.57 acres on Dunn Field to the City of Memphis for the Hays Road expansion project. On 27 September 2005, DA signed a Letter of Assignment transferring 17.66 acres of Dunn Field to DOI/NPS. On 20 December 2005, the City of Memphis notified DOI/NPS that they had declined the deed for the 17.66-acre parcel and would not submit an amendment to their approved application to acquire the adjacent 21.76-acre parcel. DOI/NPS returned the property to DA because DOI does not have legal authority to retain accountability for property rejected by the end recipient. On 28 July 2006, CESAM on behalf of DA offered the remaining FOST 4 property (39.42 acres) for public sale. As of 1 November 2006, DA had not received an acceptable bid and the public sale continued.

#### 2.3.3 Negotiated Sale

DA may sell the property by negotiation to state or local agencies at fair market value. A sale could also be negotiated with private entities. As of 1 November 2006, there are no negotiated sales planned for Depot properties.

#### 2.3.4 Widening of Public Highways

One property transfer was performed in association with a road-widening project. On 2 September 2005, DA transferred 1.57 acres to the City of Memphis for the Hayes Road expansion (adjacent to Dunn Field) between Dunn Avenue and Person Road.

#### 2.3.5 Donated Property

In October 1998, DA screened excess properties for state and local interests. As of 1 November 2006, no property donations have been initiated on any Depot properties.

#### 2.3.6 Interim Leases

Pre-disposal use of facilities by a non-DA entity can be accomplished through the execution of leases, licenses, or permits. The Military Leasing Act of 1956 (10 U.S. Code [USC] §2667), as amended, permits DA to implement interim leasing of excess facilities if it is in the public interest. Prior to any leasing or permitting, DA must complete a FOSL documenting that the property is safe for the intended use. Leased properties may be transferred by deed to future owners after disposal decisions are made. To facilitate the reuse of surplus property, and in accordance with DA policy and the Memphis Depot Redevelopment Plan goals, DA entered into an interim master lease for the

MI with DRC in September 1997. By August 1999, DA had signed FOSLs for all 578 acres of the MI.

#### 2.3.7 Competitive Public Sale

Sale to the public would occur through either an invitation for bids or an auction. On 28 July 2006, CESAM on behalf of DA offered the remaining FOST 4 property (39.42 acres) for public sale. As of 1 November 2006, CESAM had received two bids that were rejected by DA as the bids were below market value, and the property remained available for public sale.

#### 2.3.8 Economic Development Conveyance

The 1994 Defense Authorization Act provides for the conveyance of property to an LRA at or below fair market value using flexible payment terms. The economic development conveyance (EDC) is intended to promote economic development and job creation in the local community. To qualify for this conveyance, an LRA must submit a request to DA describing its proposed economic development and job creation program. DOD has recognized DRC as the LRA for the Depot. DRC submitted an EDC application to DA in March 1998. DA accepted this application in September 1998. Acceptance of a memorandum of agreement (MOA) for implementation of the terms of the EDC was completed on 3 January 2001. DA plans to transfer approximately 530 acres of Depot property to DRC through an EDC. On 27 September 2001, DA signed FOST 2 consisting of 18.03 acres of land; including the main administration building on the MI. DA signed the deed transferring 13.36 acres through an EDC to DRC on 6 May 2002. On 1 July 2004, DA signed FOST 3 for property on the MI to be transferred through an EDC to DRC. On 4 April 2006, DA signed the deed transferring 302.48 acres to DRC.

#### 2.3.9 Caretaker of Property until Disposal

Utility systems not required for continued Depot operations or interim lessees will be privatized or placed in an inactive caretaker status until the property is transferred to new owners. Army Regulation (AR) 210-17, "Inactivation of Installations," requires that "Inactive facilities and areas will be maintained to the extent necessary to ensure, as applicable, weather-tightness, structural soundness, protection against fire and erosion, conservation of natural resources, and the prevention of major deterioration...." with "...the minimum required staffing to maintain an installation in a state of repair that maintains safety, security and health standards." Upon closure, a caretaker cadre of 56

# PROPERTY DISPOSAL AND REUSE

personnel remained at the Depot to meet the requirements of AR 210-17 and PL 500-126 pending transfer of the properties. The caretaker cadre was eliminated effective 30 June 2001.





883 5

50

# 3.0 INSTALLATIONWIDE ENVIRONMENTAL PROGRAM STATUS

This section summarizes the current status of the environmental restoration program, the compliance program, the natural and cultural resources at the Depot, the environmental condition of property and suitability for transfer of the Depot facility, and the status of the community involvement program.

# 3.1 ENVIRONMENTAL PROGRAM STATUS

The environmental restoration program has been in place at the Depot since 1981. An overview of some of the major milestones in the program and for the Depot is provided below:

- Several EAs were conducted at the Depot, beginning with an initial Installation Assessment completed in 1981. During the 1980s, the Depot instituted environmental programs to ensure compliance with applicable DA and DOD regulations and local, state, and federal regulatory programs including the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act (SDWA), RCRA, and the Toxic Substances Control Act.
- A RCRA Facility Assessment (RFA) completed in 1990 identified 49 SWMUs and 8 areas of concern (AOCs).
- On 28 September 1990, USEPA Region 4 and TDEC issued the Depot a RCRA Part B permit for the storage of hazardous waste (No. TN4 210-020-570). The HSWA portion of the permit issued by USEPA included requirements for the identification and, if necessary, corrective action of SWMUs and AOCs. Subsequent to issuing the permit, and in accordance with Section 120(d)(2) of CERCLA, and Title 42, Section 9620(d)(2), of the USC, USEPA prepared a final Hazard Ranking System (HRS) Scoring Package for the facility.
- On 14 October 1992, based on the final HRS score of 58.06, USEPA added the Depot to the NPL (57 Federal Register 47180 No. 199).
- On 6 March 1995, USEPA, TDEC, and the Depot entered into an FFA under CERCLA, Section 120, and RCRA, Sections 3008(h) and 3004(u) and (v). The FFA outlines the process for investigation and cleanup of the Depot sites under CERCLA. The parties agreed that investigation and cleanup of releases from the sites (including

formerly identified SWMUs/AOCs) would satisfy any RCRA corrective action obligation under the USEPA HSWA permit and Tennessee Code -Annotated, Section 68-212-101 *et seq.* In 1995, the Generic RI/Feasibility Study (FS) Work Plan was prepared to indicate how the RI and FS would be accomplished. USEPA and TDEC approved RI/FS Field Sampling Plans (FSPs) for each OU and screening site.

- In July 1995, the Depot was identified for closure under the BRAC process, which requires environmental restoration to comply with the requirements for property transfer under PL 101-510 of Title XXIX, Defense Base Closure and Realignment. The City of Memphis and DRC were given the responsibility of planning and coordinating the reuse of the Depot.
- In 1996, USEPA and TDEC approved a ROD for an Interim Remedial Action (IRA) for Groundwater at Dunn Field.
- In 1997, sampling of RI, screening, and BRAC sites was conducted on the MI. The BCT changed the environmental condition of property categories for subparcels, where appropriate, based on a review of the sample results.
- During 1997 and 1998, the Depot requested and received closure of its air permits, underground storage tank (UST) permits, stormwater discharge permit, and Nuclear Regulatory Agency storage permit. On 22 October 1998, TDEC terminated the RCRA Part B permit because the proposed storage unit was never constructed or operated.
- In 1998, the Depot completed construction of the first phase of the IRA pump and discharge system and the system became operational. Addendums to the 1995 FSPs were completed for OUs 2, 3, and 4, as well as for groundwater at the MI. Soil and groundwater sampling for chemical warfare materiel (CWM) at Dunn Field was completed. The Depot also completed removal actions at Subparcel 2.7 (family housing area) and at Site 48/Subparcel 5.2 (cafeteria area).
- In 1999, action memorandums were prepared and signed for removal actions at the old paint shop and maintenance area (Parcels 25 and 38), as well as for CWM disposal locations at Dunn Field. Additional monitoring wells were installed west of

Dunn Field to provide more information regarding the hydrogeology of the area. Additional recovery wells for the IRA pump and discharge system were approved by the BCT and installed by the end of 1999. The Depot also completed RI fieldwork at the MI and started fieldwork for Dunn Field.

- In 2000, the Depot completed the removal action at the old paint shop and maintenance area and began the removal action for CWM disposal locations at Dunn Field. The Depot also completed and provided to the public the MI RI Report, FSs for Soil and Groundwater, and MI Proposed Plan (PP). The Depot completed the public comment period for the MI PP. The BCT approved a groundwater sampling addendum for Dunn Field.
- In 2001, DDC, USEPA, and TDEC signed the MI ROD, effective 6 September 2001. The Depot completed the CWM removal action and RI fieldwork at Dunn Field. The Depot also completed the additional groundwater sampling at Dunn Field. The BCT began its review of the Dunn Field RI Report. Subsequent to completion of the MI ROD, the Depot completed a removal action at Site 83, the south end of Building 949. The Depot began preparing the MI RD.
- In 2002, the BCT completed its review of the Dunn Field RI Report. The Depot began the Enhanced Bioremediation Treatability Study at the MI for use in the MI RD. The Depot also completed a removal action at Site 60, the former pistol range on Dunn Field.
- In 2003, the BCT completed its review of the Dunn Field FS. The Depot provided the Dunn Field RI Report, FS, and PP to the public and completed the public comment period.
- In 2004, DDC, USEPA, and TDEC signed the Dunn Field ROD, effective 12 April 2004. The BCT reviewed data gathered during MI groundwater RD activities and refined conceptual site models (CSMs) of the site hydrogeology. DDC submitted the final MI RD and the final Dunn Field Disposal Sites RD. In 2004, identification of contaminant levels exceeding 500 micrograms per liter (µg/L) in downgradient monitoring wells northwest of Dunn Field prompted the BCT to conduct early implementation of selected remedy to reduce contamination levels in groundwater downgradient of Dunn Field.

- In 2005, DDC implemented the Dunn Field Disposal Sites RA, and obtained USEPA and TDEC approval on the final Early Implementation of Selected Remedy (EISR) Interim Remedial Action Completion Report (IRACR) and the final MI RA Work Plan (RAWP). DDC submitted the draft (30%) Dunn Field Source Areas RD. DDC also obtained USEPA and TDEC approval on the Source Areas RD Investigation (RDI) Work Plan and implemented the RDI. DDC received from TDEC a notice to deny renewal of the Depot's Hazardous Waste Corrective Action Permit terminating DDC's requirement to continue corrective action under the hazardous waste regulations, as all correction action activities shall continue to be performed under CERCLA authority. On behalf of DDC, CESAM recorded the Notice of Land Use Restrictions for the MI with the City of Memphis/Shelby County Register of Deeds.
- In 2006, DDC completed the Dunn Field Disposal Sites RA and obtained USEPA approval of the final Disposal Sites RACR. DDC completed the Source Areas. Remedial Design Investigation, submitted both the 60% Source Areas RD and the 30% Off-Depot Groundwater RD to the BCT for review and comment. DDC submitted and obtained USEPA and TDEC approval of the ZVI PRB Implementation Study Work Plan and implemented the ZVI PRB Implementation Study. DDC also completed construction of the MI RA and began operating the MI RA enhanced bioremediation system.

#### 3.1.1 Restoration Sites

Past operations at the Depot have included the storage of various hazardous substances as well as the generation of various types of wastes from maintenance operations and their disposal and/or release across the installation. Efforts related to these sites under the environmental restoration program are described in this section. Table 3-1 provides the current status of the 93 restoration sites identified in the FFA. Table 3-2 summarizes the spill sites identified through a review of the Depot's Spill Response Checklists and in the 1996 EBS database search.

In 1998, the U.S Army Topographic Engineering Center's review of historical aerial photographs spanning 1945 to 1990 identified four areas on the MI as potential sources of contamination (Old Pond Area, Former Container Storage Strip, Former Magazines, and Mallory Avenue Ground Scar). These areas were investigated and included in the MI RI Report. No releases were identified from these potential sources.

To assist investigations, the BCT divided the facility into four OUs: OU-1, Dunn Field; OU-2, Southwest Quadrant, MI; OU-3, Southeastern Watershed and Golf Course, MI; and OU-4, North-Central Area, MI. Figures 3-1 through 3-4 show the restoration sites in relation to the OUs.

RODs documenting the selected RAs for the MI and Dunn Field have been signed. The BCT is working to implement the selected remedies.

Several sites underwent removal actions prior to the RODs. These actions are described in Table 3-3, "Removal Actions Summary."

#### Dunn Field

Dunn Field, OU-1, an open, unpaved area located north of and across Dunn Road from the MI, is the only known burial area on the Depot. The potential contamination sites at OU-1 are listed in Table 3-1 and shown Figure 3-1.

Beginning in 1982, the Depot installed groundwater monitoring wells to evaluate the impact of the burial sites and past hazardous substance handling operations at Dunn Field on groundwater. RI fieldwork conducted from 1989 through 1990 did not fully define the nature and extent of contamination, resulting in subsequent RI fieldwork and reports.

Between 1993 and 1996, the Depot collected additional geological and groundwater data to support an Interim ROD for groundwater at Dunn Field. USEPA and TDEC concurred with the Interim ROD, and it became effective on 7 May 1996. In 1997, the Depot began design of the IRA, which included installation of a system of groundwater recovery wells to create a hydraulic barrier to prevent further migration and to remove contaminated groundwater, and a discharge system connected to the City of Memphis sanitary sewer. During 1997 and 1998, the BCT reviewed the IRA designs. Construction of the recovery well system along the western fence line of Dunn Field was completed in September 1998, and the system was fully operational in October 1998. Four additional recovery wells installed in 1999 to enhance system performance became operational in 2001.

As of 1 November 2006, the Depot has 121 monitoring wells on and off the Depot to define the extent of the Dunn Field groundwater plume and to better define the hydrogeology of the area. As part of the IRA, the Depot holds a permit for discharge of groundwater from 11 recovery wells to the City of Memphis Wastewater Treatment System.

For the Dunn Field RI Report, the Depot divided Dunn Field into the following three areas based on past use and anticipated future use: Northeast Open Area, Stockpile Area, and Disposal Area (see Figure 1-2b).

The BCT evaluated all of Dunn Field for future industrial/commercial reuse and the Northeast Open Area for recreational reuse. The risk assessment evaluated potential exposures to maintenance, industrial, and utility workers, and off-site residents and future on-site residents (if risks are acceptable for residents, risks are acceptable for recreational reuse).

Results of the Dunn Field RI indicated that lead levels at the former pistol range site required remediation to reduce potential risks to acceptable levels for unrestricted reuse of the Northeast Open Area. In March 2003, the Depot completed the removal action of lead in soil at the former pistol range. The Dunn Field ROD indicated that the Northeast Open Area and the eastern portion of the Stockpile Area are suitable for unrestricted reuse.

The Dunn Field RI report indicated that VOCs in subsurface soil beneath the disposal sites are migrating to the fluvial aquifer groundwater. The risk assessment for the Disposal Area indicated that combined risks from surface soil, sediment, surface water, and VOCs in subsurface soil impacting ambient air do not present unacceptable risks to maintenance or industrial workers. Potential risks from VOCs in subsurface soil impacting indoor air slightly exceed acceptable levels for industrial workers in the northwest corner of the Disposal Area. Risks from surface soil and indoor air to future on-site residents were unacceptable. Disposal Area sites are not suited for utility workers because of possible disturbance of buried wastes. The Depot conducted a soil vapor extraction (SVE) treatability study to determine the effectiveness of this USEPA presumptive remedy to reduce subsurface soil VOC levels in the Disposal Area and used the data in the Dunn Field FS.

Groundwater in the fluvial aquifer under portions of the site, and off-site near the property boundary in downgradient locations, contains VOCs at levels exceeding SDWA maximum contaminant levels (MCLs) and is unfit for potable use. Groundwater in the fluvial aquifer is not used for potable water in the Depot area.

There are no unacceptable risks or hazards to future on-site workers or residents due to exposure of VOCs volatilizing from groundwater to indoor air. Since contamination has been detected in selected off-site wells, the risk assessment evaluated indoor air exposures to off-site residents and determined that risks are within acceptable limits.

Contaminants identified in the northern portion of Dunn Field appear to be migrating on-site from an off-site, upgradient source. USEPA and TDEC have implemented an investigation to identify the source of this groundwater contamination, but to date no source has been identified.

In 1999, the Depot completed RI fieldwork at Dunn Field and drafted the report, but the BCT determined that further investigation was necessary because of additional groundwater concerns from a newly installed well to the immediate west of Dunn Field. The Depot prepared an addendum to the Dunn Field sampling plan because of this new well to further characterize and monitor the groundwater plume and to provide additional information regarding the hydrogeology of the area.

This fieldwork was completed in 2001, and the Dunn Field RI Report was drafted. In 2002, the Depot completed the removal action of lead in soil at the former pistol range (Site 60) and removed the old pistol range building (Site 85). The Depot finalized the Dunn Field RI Report in August 2002 and the Dunn Field FS in May 2003. The Depot provided the PP for public comment in May 2003 and conducted a public comment meeting on 15 May 2003. The public comment period was extended until 15 July 2003. DDC signed the Dunn Field ROD on 22 March 2004; TDEC signed the ROD on 6 April 2004; and USEPA signed the ROD on 12 April 2004. The contaminants of concern (COCs) for Dunn Field include benzene; carbon tetrachloride (CT); chloroform; copper; 1,1-dichloroethene (DCE); 1,2-DCE; lead; polycyclic aromatic hydrocarbons; 1,1,2,2-tetrachloroethane; tetrachloroethene (PCE); 1,1,2-trichloroethane; trichloroethene (TCE); and vinyl chloride. The major components of the selected remedy for Dunn Field include:

- Excavation, transport, and disposal of soil and material contained within disposal sites located in the western half of Dunn Field based upon results from a pre-design investigation into these sites.
- Use of SVE to reduce VOC concentrations in subsurface soils to levels that are protective of the intended land use and groundwater.
- Injection of zero-valent iron (ZVI) within Dunn Field to treat chlorinated volatile organic compounds (CVOCs) in the most contaminated part of the groundwater plume, and installation of a permeable reactive barrier (PRB) to remediate CVOCs within the off-site areas of the groundwater plume.

- Monitored natural attenuation (MNA) and long-term groundwater monitoring to document changes in plume concentrations, to detect potential plume migration to off-site areas or into deeper aquifers, and to track progress toward remediation goals.
- Implementation of land use controls (LUCs), which consist of the following institutional controls: deed and/or land restrictions, Notice of Land Use Restrictions, City of Memphis/Shelby County zoning restrictions, and the Memphis and Shelby County Health Department groundwater well restrictions.

The Depot conducted pre-design investigations at Dunn Field in 2003 and 2004, disposal sites confirmation sampling, and a ZVI pilot test. The data from these pre-design investigations will be used in the RDs for Dunn Field. DDC submitted the final Disposal Sites RD in April 2004.

In 2004, samples from monitoring wells downgradient of Dunn Field indicated concentrations of PCE and TCE exceeding 500  $\mu$ g/L in the area proposed for installation of the PRB in the Dunn Field ROD. The levels prompted DDC to implement the ZVI portion of the Dunn Field remedy prior to installation of the PRB to reduce concentrations and to enhance the PRB's effectiveness. DDC distributed the Early Implementation Technical Memorandum and obtained BCT concurrence to the early implementation RA in September 2004. DDC completed the EISR action in January 2005 and obtained USEPA and TDEC approval of the EISR IRACR in September 2005.

DDC implemented the Dunn Field Disposal Sites RA in 2005. DDC completed the Disposal Sites RA and submitted the Disposal Sites RACR in 2006. DDC received USEPA approval of the Disposal Sites RACR on 25 August 2006. The Dunn Field Source Areas (SVE and ZVI) RD and the Off-Depot Groundwater RD are scheduled for completion in 2007 and 2008, respectively. DDC completed fieldwork for the ZVI PRB Implementation Study with confirmation sampling to continue until January 2007. The results of this study will be used to complete the Off-Depot Groundwater RD.

#### Main Installation (OUs 2, 3, and 4)

The MI was divided into OUs, 2, 3, and 4, and then into six FUs based on historical past use and anticipated future reuse. Groundwater under the MI is FU-7. Figures 3-2 through 3-4 show the individual sites within each OU on the MI. Figures 1-2a and 1-2b show the OUs and the FUs.

Beginning in 1982, the Depot installed groundwater monitoring wells to evaluate the impact of past hazardous substance handling operations on groundwater at the MI. As of 1 November 2006, the Depot has 77 monitoring wells on and off the Depot to define the extent of groundwater contamination at the MI and to better define the hydrogeology of the area. In 2006, the Depot installed an additional 49 sodium lactate injection wells and 30 performance monitoring wells for the MI RA.

In 1999, the Depot completed MI RI fieldwork. In January 2000, the Depot distributed the final MI RI Report, which included the risk assessment. The COCs in groundwater identified at the MI are CT, PCE, and TCE. Although CT, PCE, and TCE occur in groundwater above the SDWA MCLs, they do not present significant current health risks because the fluvial aquifer is not a source of drinking water in the Depot area and the water table depth of approximately 80 feet below land surface prevents surface impacts. The COCs in soil at the MI are lead, arsenic, and dieldrin. Lead, dieldrin, and arsenic levels in surface soil in some areas present unacceptable risks for hypothetical future residents. Lead was above the industrial health protective level in one area (adjacent to the south end of Building 949).

The Depot distributed final MI FSs for Soil and Groundwater in July 2000. The MI PP public comment period ended on 13 October 2000. In 2000, the Depot completed a removal action at the old paint shop and maintenance area (Buildings 1084, 1085, 1086, 1087, 1088, 1089, 1090, and 1091) to bring lead levels in soil to within USEPA's acceptable risk-based concentrations for industrial land use.

During development of the ROD, DDC elected to conduct a removal action of lead-contaminated soil around the south end of Building 949 prior to finalization of the ROD. The ROD contains an explanation of significant difference regarding the removal action.

DDC, TDEC, and USEPA signed the MI ROD, and it became effective on 6 September 2001. The selected remedy for the MI includes the following:

- Restrict future residential land use and daycare operations in FUs 1 through 6 (except at Parcels 1 and 2), and casual access to FU-2 from adjacent off-site residents, through LUCs.
- Prevent future groundwater use on the MI while concentrations of the COCs are above MCLs.
- Reduce concentrations of COCs in groundwater migrating away from the MI to MCLs through enhanced bioremediation treatment (EBT) in the groundwater with the highest concentrations and natural attenuation in other areas of the plumes.
- Conduct 5-year reviews of the RA according to Section 121(c) of CERCLA and the NCP §300.430(f)(5)(iii)(c) if there are any hazardous substances, pollutants, or contaminants remaining at the site above levels that would allow for unlimited use and unrestricted exposure. The review will be conducted no less often than every 5 years after the initiation of such RA to ensure that human health and the environment are being protected by the RA being implemented.

The Depot completed the MI RD Work Plan in July 2002 and began RD fieldwork to determine the locations for EBT. DDC submitted the final MI RD in July 2004. On behalf of DDC, CESAM recorded the Notice of Land Use Restrictions for the MI with the City of Memphis/Shelby County Register of Deeds on 26 January 2005. DDC submitted the final MI RAWP and obtained USEPA and TDEC approval in September 2005. DDC completed construction of the MI RA and began operating the MI RA enhanced bioremediation system in September 2006.

#### 3.1.2 Installation-wide Source Discovery and Assessment Status

The source discovery and assessment phases at the Depot are complete. RODs for the MI and Dunn Field are complete and have been signed by DDC, TDEC, and USEPA.

Several installation-wide assessments have been conducted to identify the presence of contamination and contamination sources at the Depot, as discussed in Section 3.1.1. Table 3-2 summarizes the spill sites that were identified through a review of the Spill Response Checklists provided by Depot personnel and in the database search report.

Several other installation-wide surveys related to environmental compliance programs have also been conducted at the Depot. These include asbestos, PCB, radon, and radiological surveys. The

results of these surveys and the current status of these environmental programs are described in Section 3.2.

# 3.2 COMPLIANCE PROGRAM STATUS

Upon termination of material handling operations at the Depot in 1997 and completion of the Memphis Depot Caretaker operations in 2001, the operations-related environmental compliance program ended. A description of the various environmental compliance programs once managed at the Depot is provided in the following subsections.

## 3.2.1 Storage Tanks

DDC no longer maintains USTs or aboveground storage tanks (ASTs) at the Depot. Both USTs and ASTs at the Depot were historically used to store petroleum products for heating, vehicle and equipment fueling, and maintenance operations.

#### USTs

A complete inventory of USTs is provided in Table 3-4. The table includes information regarding the location, size, contents, and status of each UST. DDC no longer maintains USTs.

#### ASTs

An inventory of the ASTs, including tank size, contents, and status, is provided in Table 3-5. The remaining ASTs were transferred to DRC. DDC no longer maintains ASTs.

# 3.2.2 Hazardous Substance Management

DDC no longer manages operations-related hazardous substances. Use and storage of operationsrelated hazardous substances ended in 1997 with closure of the Depot. Contractors conducting environmental restoration activities are required to comply with the applicable or relevant and appropriate requirements (ARARs).

A description of hazardous substance management activities at the Depot is provided in Section 1.7.

#### 3.2.3 Lead-Based Paint

DDC no longer manages the lead-based paint (LBP) program at the Depot. A comprehensive LBP survey was conducted at the Depot in 1995 (Barge, Waggoner, Sumner, and Cannon 1996). LBP abatement occurred at the former military family housing area in 1997, 1998, and 1999.

#### 3.2.4 Hazardous Waste Management

DDC no longer manages hazardous waste at the Depot and has terminated all portions of the Depot's RCRA permit. Contractors are required to conduct hazardous waste management in accordance with the waste management portions of sampling, removal, or RA plans and are required to comply with the ARARs. For the purpose of disposal of restoration-derived hazardous waste, the Depot operates under USEPA identification No. TN4210020570.

The original Part B RCRA permit issued by TDEC on 28 October 1990 for a hazardous waste storage facility was terminated by TDEC on 22 October 1998 upon request of the Depot because the unit was not constructed or operated. The HSWA portion of the RCRA permit was issued by USEPA Region 4 on 28 October 1990 for the purpose of RCRA corrective action for releases from SWMUs. Based on requirements of TDEC and USEPA, the Depot submitted a corrective action permit renewal application on 29 March 2004.

On 24 September 2004, DDC correspondence to TDEC withdrew the corrective action permit application for the Depot. On 19 January 2005, TDEC issued DDC a Denial to Reissue the Hazardous Waste Corrective Action Permit, which terminated the Depot's requirement to continue corrective action under the hazardous waste management regulations and noted that all corrective action activities shall continue to be performed under CERCLA authority. A description of RCRA hazardous waste management activities at the Depot is provided in Section 1.7.

#### 3.2.5 Solid Waste Management

DDC no longer manages solid waste at the Depot.

# 3.2.6 Polychlorinated Biphenyls

DDC no longer manages the PCB program at the Depot. The results of the 1993 PCB survey are provided in Appendix E.

#### 3.2.7 Asbestos

DDC no longer manages asbestos-containing material (ACM) at the Depot. An asbestos survey (The Pickering Firm, Incorporated 1993a, 1993b, 1993c, 1994a, 1994b, 1994c, 1994d, 1994e, 1994f, 1994g, 1994h, 1994i, 1994j, 1994k) was performed at the Depot, and the results of this survey are summarized in Appendix E.

#### 3.2.8 Radon

DDC no longer manages radon at the Depot. The results of the 1995 radon survey are provided in Appendix E.

### 3.2.9 RCRA Facilities

DDC no longer manages RCRA facilities at the Depot. Specific investigation and restoration requirements for SWMUs at the Depot are included in the CERCLA environmental restoration process.

A complete description of the status of these environmental restoration activities is provided in Section 3.1. A description of RCRA hazardous waste management activities at the Depot is provided in Sections 1.7 and 3.2.4.

#### 3.2.10 Wastewater Discharges

DDC no longer manages stormwater at the Depot. Contractors conducting environmental restoration activities are required to comply with the City of Memphis industrial wastewater discharge agreement for the IRA for groundwater at Dunn Field and with the ARARs. Point source wastewater is discharged via the City's sanitary sewer to the City's treatment facilities. The Depot requested and received from TDEC termination of the NPDES permit effective 29 June 2001.

#### 3.2.11 Oil/Water Separators

DDC no longer manages oil/water separators at the Depot.

#### 3.2.12 Pollution Prevention

DDC no longer manages pollution prevention at the Depot.

#### 3.2.13 Medical Waste

DDC no longer manages medical waste at the Depot.

#### 3.2.14 Unexploded Ordnance

The Archives Search Report and investigation indicated no unexploded ordnance (UXO) at the Depot.

#### 3.2.15 NEPA

DDC has no further NEPA responsibilities at the Depot. A more complete description of the NEPA process and documentation is provided in Section 2.1.3.

#### 3.2.16 Air Emissions

DDC no longer manages operations-related air emissions at the Depot. Air emission permits were terminated in May 1997. Contractors conducting environmental restoration activities are required to manage air emissions in accordance with the emission management portions of sampling, removal, or RA plans and are required to comply with the ARARs.

#### 3.3 STATUS OF NATURAL AND CULTURAL RESOURCES

DDC no longer manages natural or cultural resources at the Depot. For more information about the natural and cultural resources at the Depot, refer to the EA for Disposal and Reuse for the Depot completed in February 1998.

#### 3.3.1 Vegetation

The Depot is highly developed. Very little native vegetation exists except as associated with Lake Danielson, the golf course pond, or undisturbed areas at Dunn Field. In addition, landscaping programs have concentrated decorative plantings around Lake Danielson, the golf course, and the former military family housing area.

#### 3.3.2 Wildlife

Because the Depot is in a highly developed area, it offers limited habitat. Ducks, geese, frogs, goldfish, and Arkansas shiners have been observed at the golf course pond and Lake Danielson.

Dunn Field is the only undisturbed open area on the site. Animals that have been observed at Dunn Field include squirrels, red foxes, quail, mourning doves, and turtles.

#### 3.3.3 Wetlands

A wetland survey of the Depot was completed by USACE, Memphis District, in July 1996. Survey results indicated that there are no regulated wetlands on the Depot.

#### 3.3.4 Designated Preservation Areas

There are no designated preservation areas at the Depot.

#### 3.3.5 Rare, Threatened, and Endangered Species

No federally listed or proposed threatened or endangered species have been observed on the Depot.

#### 3.3.6 Cultural and Historical Resources

#### Archaeological Resources

No archaeological sites are known to be located within the immediate vicinity of the Depot, although the area was occupied by a variety of Native American groups. In May 1997, USACE, Fort Worth District, conducted an archaeological survey of the golf course area and Dunn Field and found no archaeological resources (Prewitt & Associates, Inc. 1997).

#### Historical Resources

There are currently no sites or structures located on the Depot property that are listed on the National Register of Historic Places (NRHP). In April 1997, USACE, Fort Worth District, conducted a cultural resources survey. The final report, titled, "A Cultural Resources Inventory and Assessment at the Defense Distribution Depot Memphis, Tennessee," dated 6 June 1997, indicated that the World War II-era warehouses known as the 20 Typicals were eligible for inclusion on the NRHP. The Tennessee State Historic Preservation Officer (TNSHPO) agreed with the report's assessment of the 20 Typicals and also determined that three World War II-era guard stations were eligible for inclusion on the NRHP. No nominations to the NRHP have been made.

In June 1998, the Army Materiel Command (AMC), the TNSHPO, and the Advisory Council on Historic Places signed an MOA regarding these NRHP-eligible buildings and received DRC concurrence.

#### 3.4 ENVIRONMENTAL CONDITION OF PROPERTY

During the EBS, the Depot was divided into subparcels to facilitate decision making regarding the environmental condition of specific areas. As defined in the EBS, a subparcel is an area of BRAC property that can be segregated from its surrounding areas, based on the environmental condition of the property. The subparcels and corresponding categorizations are identified in Figure 3-5, "Environmental Condition of Property Map, Main Installation," and Figure 3-6, "Environmental Condition of Property Map, Dunn Field." Table 3-6, "Subparcel Descriptions," describes each subparcel. Areas containing or potentially containing non-CERCLA substances are identified and delineated separately with the letter "Q" as qualified subparcels. Qualified subparcels may be precluded from transfer or lease for unrestricted use and overlay all "environmental condition of property" categories (Categories 1 through 7).

The seven standard "environmental condition of property" categories, as defined in the CERFA guidance and the Revised DOD BCP Guidebook (September 1996), are as follows:

**Category 1.** Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).

Category 2. Areas where only release or disposal of petroleum products has occurred.

**Category 3.** Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or RA.

**Category 4.** Areas where release, disposal, and/or migration of hazardous substances has occurred, and all RAs necessary to protect human health and the environment have been taken.

**Category 5.** Areas where release, disposal, and/or migration of hazardous substances has occurred, and removal or RAs are underway, but all required RAs have not yet been taken.

**Category 6.** Areas where release, disposal, and/or migration of hazardous substances have occurred, but required actions have not yet been implemented.

**Category 7.** Areas that are not evaluated or require additional evaluation.

Each subparcel was given a number to which appropriate descriptive labels are attached. The numbers consist of a unique subparcel identification number and an environmental condition of property category number. The labels consist of a designation describing the type of release or

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

storage, if applicable. The following designations are used to indicate the type of release or storage present in a subparcel:

PS = Petroleum storage

PR = Petroleum release or disposal

HS = Hazardous substance storage

HR = Hazardous substance release or disposal

A 1-acre grid coordinate system is overlaid to facilitate the following subparcel discussion by geographically locating the various subparcels. Subparcel boundaries were drawn using the best available information regarding the extent of contamination and do not follow map grid lines. Circular 0.25-acre subparcels centered on the area, as stipulated in DOD guidance, delineated small areas of release or storage, such as USTs. For consistency and to facilitate the summation of acreages, subparcel acreages were calculated to two decimal places using the digitized map and AutoCAD Release 13. This method is not meant to imply accuracy to one one-hundredth of an acre.

New land surveys performed in support of property transfers may result in subparcel acres different from those based on the AutoCAD calculations and presented in the FOSTs. Actual acres transferred are noted in Table 3-6.

#### 3.4.1 Areas Where No Release or Disposal Has Occurred

A total of 13 subparcels encompassing approximately 0.93 acre are currently designated Category 1. These subparcels are areas where there has been no documented release or disposal, or migration of hazardous substances or petroleum products from an adjacent property. Table 3-6 describes the designated Category 1 subparcels.

Woodward-Clyde's survey and subsequent parcelization of the Depot in 1996 identified 38 subparcels, totaling 6.2 acres, as uncontaminated, Category 1 subparcels. A review by the BCT in 1997 and 1998 identified several additional Category 1 subparcels, bringing the total to 56 subparcels and 57.43 acres of Category 1 subparcels, as shown in Table 3-7, "Uncontaminated Category 1 Subparcels." Although USEPA concurred with the CERFA uncontaminated parcels letter reports dated March 1997 and July 1998, additional data collected since then, regarding areas of groundwater contamination beneath the MI and institutional controls (ICs) required by the MI

ROD at parcels within FUs 1 through 6 (excluding Parcels 1 and 2), have resulted in subparcels reverting from Category 1 to either Category 4 (ICs implemented via the Master Lease and the Environmental Protection Provisions contained in subsequent FOSLs) or Category 6 (groundwater beneath the subparcel contains VOC levels exceeding SDWA MCLs).

#### 3.4.2 Areas Where Only Petroleum Release or Disposal Has Occurred

Category 2 subparcels are areas where only release or disposal of petroleum products has occurred. No subparcels are designated Category 2.

# 3.4.3 Areas Where Release, Disposal, and/or Migration Has Occurred, but No Remedial Action Is Required

A total of 10 subparcels encompassing approximately 58.6 acres are designated Category 3. The Category 3 subparcels are areas where release, disposal, and/or migration of hazardous substances have occurred, but at concentrations that do not require removal or RA. Information regarding releases was obtained from the Depot's Spill Response Checklists maintained by DDC (Memphis). Table 3-6 describes the designated Category 3 subparcels.

# 3.4.4 Areas Where Release, Disposal, and/or Migration Has Occurred and All Remedial Actions Have Been Taken

A total of 116 subparcels, encompassing approximately 412.73 acres, are designated Category 4. The Category 4 subparcels are areas where release, disposal, and/or migration of hazardous substances have occurred, and all removal or RAs necessary to protect human health and the environment have been taken. Information regarding releases was obtained from the Depot's Spill Response Checklists maintained by DDC (Memphis). Of the Category 4 subparcels, 31 subparcels encompassing approximately 35.03 acres reverted from Category 1 to Category 4 in 2002 (see Table 3-6 for descriptions of these subparcels) because of the ICs called for in the MI ROD and implemented by the Master Lease and subsequent MI FOSLs. Of the Category 4 subparcels, nine subparcels encompassing approximately 40.9 acres that reverted from Category 1 to Category 6 in 2002 were changed to Category 4 in 2003 because subsequent groundwater sampling data indicated that the selected groundwater RA would not be implemented at these subparcels. USEPA does not consider available for transfer three Category 4 subparcels in Parcel 4 encompassing approximately 0.47 acre because they are situated over groundwater contamination that will be treated by the MI RA. Table 3-6 describes the designated Category 4 subparcels.

# 3.4.5 Areas Where Release, Disposal, and/or Migration Has Occurred and Action Is Underway but Not Final

No subparcels are designated Category 5. Category 5 subparcels are areas where release, disposal, and/or migration of hazardous substances has occurred and removal or RAs are underway, but all required actions have not yet been implemented.

# 3.4.6 Areas Where Release, Disposal, and/or Migration Has Occurred, but Required Response Actions Have Not Been Taken

A total of 49 subparcels encompassing approximately 169.74 acres are designated Category 6. The Category 6 subparcels are areas where release, disposal, and/or migration of hazardous substances have occurred, but the required removal or RAs have not yet been taken. Information regarding releases was obtained from the Depot's Spill Response Checklists maintained by DDC (Memphis). Of these subparcels, 3 subparcels encompassing approximately 0.57 acre reverted from Category 1 to Category 6 because of groundwater beneath these subparcels containing VOC levels exceeding MCLs. Table 3-6 describes the designated Category 6 subparcels.

### 3.4.7 Unevaluated Areas or Areas Requiring Additional Evaluation

No subparcels are designated Category 7. Category 7 subparcels are areas that have not been evaluated or require additional evaluation.

#### 3.4.8 Qualified Parcels

In determining the qualified subparcels, the Depot observed the following guidelines:

- If a building was not included in the 1993 asbestos survey, but was constructed prior to 1985, it was assumed to contain ACM. An "A(P)" for the possible presence of asbestos was used to qualify the subparcel.
- Since an LBP survey for non-residential reuse buildings has not been conducted, buildings constructed prior to 1978 were assumed to contain LBP. An "L(P)" for the possible presence of LBP was used to qualify the subparcel.
- Parcels were qualified for ACM, LBP, PCBs, radon, and radiological sources based on information gathered through record reviews, interviews, and visual inspections.

January 2007

• Areas used as firing ranges and impact areas have the potential to contain UXO and ammunition components (e.g., metal casings from small arms). An "X(P)" for the possible presence of UXO and ammunition components was used to qualify these areas.

There are 85 subparcels, totaling approximately 110.38 acres, identified as qualified subparcels, as described in Table 3-8. Buildings or areas within 12 subparcels totaling approximately 20.95 acres have been either demolished or found not to contain UXO since first identified as qualified subparcels in 1996, and have been removed from Table 3-8. When a qualified subparcel is associated with a building/facility, the acreage presented corresponds to the footprint of the building/facility. The qualified subparcels are labeled as follows on Table 3-8:

Subparcel - Building Number or Area Q - Qualifier

For example, 1.1-1Q-A/L(P) represents Subparcel 1.1, Building 1, and asbestos and possible LBP qualifiers.

#### 3.4.9 Suitability of Installation Property for Transfer by Deed

SARA, Title 1, Section 120, to CERCLA addresses the transfer of federal property on which any hazardous substance was stored during any one-year period or was released or disposed of. Section 120 also requires any deed for the transfer of such federal property to contain, to the extent that such information is available from a complete search of agency files, the following information:

- A notice of the type and quantity of any hazardous substance storage, release, or disposal;
- Notice of the time at which such storage, release, or disposal took place;
- A description of what, if any, RA has occurred; and
- A covenant warranting that appropriate RA will be taken.

Under SARA, Title 1, Section 120, to CERCLA, those subparcels that are Category 1, 2, 3, 4, or 5 (if the remedy in place has been approved by the Administrator) meet the CERCLA criterion of being suitable for transfer to a non-federal entity. Category 6 and 7 properties, which may have unknown environmental impacts or may involve releases of hazardous substances as defined by CERCLA, cannot be transferred to a non-federal entity under CERCLA.

The Depot has subparcels totaling approximately 472.26 acres classified as CERFA Categories 1 through 4. These subparcels, as discussed in Sections 3.4.1 through 3.4.4 and described in Table 3-6, are suitable for immediate transfer to a non-federal entity according to CERCLA, except for three Category 4 subparcels (0.47 acre) in Parcel 4, as USEPA does not consider them available for transfer because the subparcels are situated above groundwater contamination to be treated during the MI RA. Based on actual land surveys, 422.22 acres have been approved for transfer through FOSTs 1 through 4. In 2001, USEPA approved and DA signed FOST 1 for Parcel 2 consisting of 6.52 acres on the MI. In 2002, USEPA approved and DA signed the FOST 2 for Parcel 1 consisting of 18.03 acres on the MI. In 2004, USEPA approved and DA signed FOST 3 for all of Parcels 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22, and portions of Parcels 23, 24, 29, and 33, consisting of 356.68 acres on the MI. In 2005, USEPA approved and DA signed FOST 4 for 41.17 acres of Dunn Field, consisting of the eastern portion identified in the Dunn Field ROD as available for unrestricted reuse.

The Depot has subparcels totaling approximately 169.74 acres classified as CERFA Categories 5 through 7, as discussed in Sections 3.4.5 through 3.4.7 and described in Table 3-6. Category 6 and 7 subparcels cannot be transferred to a non-federal entity under CERCLA until environmental restoration is initiated. Category 5 subparcels may be transferred but not until the remedy is in place and determined to be operating properly and successfully.

Although not regulated by SARA, Title 1, Section 120, non-CERCLA substances delineating qualified subparcels also affect the suitability of BRAC property for transfer. DOD has prepared guidance for dealing with the transfer of qualified subparcels, stating that issues relating to the presence of non-CERCLA substances, such as asbestos, LBP, and UXO, will be fully addressed prior to transfer of the property.

# 3.5 STATUS OF COMMUNITY INVOLVEMENT

Community involvement activities occurring at the Depot include activities relating to BRAC, the environmental restoration program, and the environmental compliance program. These activities include:

• Information Repositories. Information repositories are places where documents and information pertaining to the facility are stored and made available for public inspection. DDC maintains information repositories at the Community Outreach Room at the Memphis Depot Business Park and at the Memphis/Shelby County
#### SECTION THREE INSTALLATIONWIDE ENVIRONMENTAL PROGRAM STATUS

Public Library Cherokee Branch. The repositories contain information about environmental activities at the Depot.

- Administrative Record. An Administrative Record has been established for the Depot in accordance with CERCLA requirements. AFCEE contractors maintain the Administrative Record for DDC. Documents included in the Administrative Record have also been scanned; the images have been placed on compact diskettes and are available at the information repositories.
- Technical Review Committee. A technical review committee (TRC) was formed in February 1994 to review and comment on the Depot's actions related to releases or threatened releases of hazardous substances at the installation. The TRC meetings served as working sessions of the involved Depot, CEHNC, USEPA, and TDEC remedial project managers to discuss progress and scheduling of investigations and cleanup actions with City and County officials; local health department officials; and Memphis Light, Gas, and Water officials. The TRC evolved into the RAB.
- **Restoration Advisory Board.** On 21 July 1994, the Depot hosted the first RAB meeting. The Depot created the RAB to promote increased public involvement and enable continued flow of information, concerns, and needs between the community and the Depot. At the Depot, the RAB includes representatives of the Memphis City Council; the Shelby County Commission; the Memphis/Shelby County Health Department; Memphis Light, Gas, and Water; USEPA; TDEC; a local environmental group; concerned citizens; and the Depot. The RAB conducts meetings to discuss environmental restoration and reuse issues. The frequency of the meetings has decreased following completion of the RODs. In 2005 and 2006, RAB meetings were conducted in April and October to provide updates regarding restoration activities. The public is encouraged to attend RAB meetings through published announcements.
- **Community Relations Plan.** The Depot prepared a Community Relations Plan (Frontline Corporate Communications 1999), which identified issues of community concern and proposed site-specific activities to address the concerns. DDC updated the plan following approval of the Dunn Field ROD. The post-ROD Community Involvement Plan was approved in January 2005.

#### SECTION THREE INSTALLATIONWIDE ENVIRONMENTAL PROGRAM STATUS

• **Community Information Sessions/Public Briefings.** DDC conducts additional public meetings separate from the RAB in order to inform the public. In 2000, the BCT hosted an Availability Session in conjunction with the MI PP public comment meeting. This provided an opportunity for the public to communicate with representatives of the Depot; USEPA; TDEC; the Memphis/Shelby County Health Department; USACE; contractors; the Agency for Toxic Substances and Disease Registry; Memphis Light, Gas, and Water; and other agencies involved with specific aspects of the Depot's environmental restoration program. The Depot conducted a community information session and two public briefings in 2005. The briefings were conducted to present the RDs for the Dunn Field Disposal Sites and the MI, and the community information session was conducted to provide information about use of ZVI in RAs.











1 The second secon -----And succession. 日間語言 12222 X3334 55 STI 11 1 1 No. of Lot of Lo FINAL a line ton -58 -----.... 1 . .



883 80

# TABLE 3-1 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup>	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION OF SITE <sup>(b)</sup>
Operable U	nit 1: Dunn	Field	L	
1	1	36.16	Mustard and Lewisite Training Sets (9 sets) Burial Site (1955)	A CERCLA Removal Action took place for this area in 2000-2001. No further remedial action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls.
2	2	36.1	Ammonia Hydroxide (7 pounds) and Acetic Acid (1 gallon) Burial (1955)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls.
3	3	36.2	Mixed Chemical Burial Site (orthotoluidine dihydrochloride) (1955)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. This unit is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Excavation of this site began in March 2005 and was completed in 2006. USEPA approved the RACR in August 2006.
4	4	36.3	POL Burial Site (thirteen 55- gallon drums of oil, grease, and paint)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Releases from this unit are addressed by the selected groundwater remedy.
4.1	90	36.3	POL Burial Site (thirty-two 55- gallon drums of oil, grease, and thinner) (1955)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. This unit is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Releases from this unit are addressed by the selected groundwater remedy. Excavation and off-site disposal of this site was completed in March 2005. USEPA approved the RACR in August 2006.
5	5	36.4	Methyl Bromide Burial Site A (3 cubic feet) (1955)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
6	6	36.20	40,037 units ointment (eye) Burial Site (1955)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
7	7	36.5	Nitric Acid Burial Site (1,700 quart bottles) (1954)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.

i

# TABLE 3-1 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup> ")	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION OF SITE <sup>(b)</sup>
8	8	36.6	Methyl Bromide Burial Site B (3,768 1-gallon cans) (1954)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
9	9	36.17	Ashes and Metal Burial Site (burning pit refuse) (1955)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
10	10	36.21	Solid Waste Burial Site (near MW-10) (metal, glass, trash, etc.)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. This unit is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Excavation of this site began in March 2005 and was completed in 2006. USEPA approved the RACR in August 2006.
11	11	36.7	Trichloroacetic Acid Burial (1,433 1-ounce bottles) (1965)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. Releases from this unit are addressed by the selected groundwater remedy.
12 & 12.1	12	36.8	Sulfuric and Hydrochloric Acid Burial (1965)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Releases from this unit are addressed by the selected groundwater remedy.
13	13	36.9	Mixed Chemical Burial (Acid, 900 pounds; unnamed solids, 8,100 pounds)	The selected CERCLA remedy includes excavation of contaminated soils/waste materials and off-site disposal. This unit is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Excavation of this site was completed in March 2005. USEPA approved the RACR in August 2006.
14	14	36.22	Municipal Waste Burial Site B (near MW-12) (food, paper products)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
15	15	36.23	Sodium Burial Sites (1968)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.

I

# TABLE 3-1 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup>	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION
15.1	91	36.23	Sodium Phosphate Burial (1968)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
15.2	92	36.23	14 Burial Pits: Na <sub>2</sub> PO <sub>4</sub> , sodium, acid, medical supplies, and chlorinated lime (1969)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
16	16	36.10	Unknown Acid Burial Site (1969)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
16.1	93	36.10	Acid Burial Site	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
17	17	36.11	Mixed Chemical Burial Site C (1969)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Releases from this unit are addressed by the selected groundwater remedy.
18	18	36.15	Plane Crash Residue (Dunn Field)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
19	19	36.24	Former Tear Gas Canister Burn Site (Dunn Field)	No further action is required at this site.
20	20	36.25	Probable Asphalt Burial Site (Dunn Field)	No further action is required at this site.
21	21	36.26	XXCC-3 Burial Site (Dunn Field)	No further action is required at this site.
22	22	36.15	Hardware Burial Site (nuts and bolts) (Dunn Field)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls.
23	23	36.29	Construction Debris and Food Burial Site (Dunn Field)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.

 TABLE 3-1

 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

.

IRP/SWMU SITE	DSERTS SITE NUMBER <sup>(</sup>		DESCRIPTION	
	24			OF SITE <sup>W</sup>
24	24	30.29	Pormer Burial/Burn Site and Neutralization Pit	Beginning in August 2000 all 29 bomb casings were recovered from the burial site and 900 cubic yards of soil contaminated with mustard degradation by-products were excavated and disposed offsite. Beginning in November 2000, 33 cubic yards of soil contaminated with mustard and degradation by-products were excavated from the neutralization pit and disposed offsite. In March 2001, the CERCLA Removal Action was complete. No further action is required for this site; however it is located in a section of the Dunn Field stockpile area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
A)	50	36.27	Dunn Field Northeastern Quadrant Drainage Ditch	No further action is required for this site; however, a portion of this area is located in a section of Dunn Field area where the selected CERCLA remedy includes land use controls.
60	60	36.14	Pistol Range Impact Area/Bullet Stop	A CERCLA Removal Action for lead in surface soil was conducted in 2003. No further action is required at this site.
61	61	36.28	Buried Drain Pipe (Northwestern Quadrant of Dunn Field)	No further action is required for the site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls.
62	62	36.12/36. <u>13</u>	Bauxite Storage (Northeastern Quadrant of Dunn Field)	No further action is required at this site.
63	63	36.29/36. 30	Fluorspar Storage (10 mounds in Southeastern Quadrant of Dunn Field, 1 mound in Southwestern Quadrant of Dunn Field) All mounds removed by 1999	No further action is required for the portions of this site in Subparcel 36.30; however, Subparcel 36.29 is located in an area of Dunn Field where the selected CERCLA remedy includes land use controls. A portion of this unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.
64	64	36.29	Bauxite Storage (Southwestern Quadrant of Dunn Field Removed in 1972), CC-2 Burial Site, IA Site 31 (smoke pot burn/disposal area)	The selected CERCLA remedy for IA Site 31 includes excavation of contaminated soils/waste materials and off-site disposal. For the remaining portions of the site no further action is required. All of Site 64 is located in an area of Dunn Field where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy. Excavation of this site was completed in March 2005. USEPA approved the RACR in August 2006.
85	85	36.14	Old Pistol Range Building 1184/Temporary Pesticide Storage	A CERCLA Removal Action for lead in surface soil was conducted in 2003. No further action is required at this site.
86	86	36.18/36. 19	Food Supplies (Dunn Field)	No further action is required for this site; however, it is located in the Dunn Field disposal area where the selected CERCLA remedy includes land use controls. This unit overlies the subsurface soil remediation area where soil vapor extraction was selected as part of the CERCLA remedy.

.

883

 TABLE 3-1

 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup>	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION
27	27	24.1	Former Recoupment Area (Building 873)	Contaminated soil removed in 1985 as part of pre- Remedial Investigation activities. No further action is required for this site; however, it is located in FU 2 on the MI for which the selected CERCLA remedy includes land use controls.
29	29	35.2	Former Underground Waste Oil Storage Tank	The tank was located and removed during a CERCLA Removal Action in 2000; the contaminated soils were disposed as special waste and the tank contents were disposed as RCRA hazardous waste. This unit is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This unit overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy. Remedial action construction of the enhanced bioremediation treatment system began in may 2006 and was completed in September 2006. Sodium lactate injections began in September 2006.
30	30	24.3/35.3	Paint Spray Booths (2 of 3 total; Buildings 770 and 1086)	No further action is required for this unit; however, it is located in FUs 3 & 6 on MI for which the selected CERCLA remedy includes land use controls.
31	31	35.4	Former Paint Spray Booth (Building 1087)	Building 1087 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil outside the building was excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site; however, it is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This unit overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
32	32	35.5	Sandblasting Waste Accumulation Area	Building 1088 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil outside the building was excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site; however, it is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This unit overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bio-remediation was selected as the CERCLA remedy.
33	33	35.4	Sandblasting Waste Drum Storage Area (metal shed south of Building 1088)	The surface soil in this area was excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. No further action is required for this site; however, it is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This unit overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
34	34	24.3	Building 770 Underground Oil Storage Tanks	The underground storage tanks were removed in 1989. This unit is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

Z

### TABLE 3-1 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup>	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION
40	40	24.3	Safety Kleen Units - 5 of 9 total (all located in Building 770)	No further action is required for these units; however, they were located in FUs 3, 5 and 6 on the MI for which the selected CERCLA remedy includes land use controls.
41	41	24.3	Satellite Drum Accumulation Areas - 1 of 4 total (vicinity Building 770)	The units were located in FUs 1, 3, 5 and 6 on the MI for which the selected CERCLA remedy includes land use controls.
71	71	Multiple	Herbicide (All railroad tracks) (used to clear tracks)	This area is located throughout the MI for which the selected CERCLA remedy includes land use controls
82	82	23.7/23.8	Flammables (Buildings 783 and 793)	This area is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls
84	84	27.2	Flammables, Solvents, Waste Oil, etc. (Building 972)	This area is located in FU 3 on the MI for which the selected CERCI A remedy includes land use controls
87	87	35.2	DDT, banned pesticides (Building 1084)	Building 1084 was demolished and the debris was disposed off-site at a solid waste landfill. A concrete sump beneath the building was excavated; the contaminated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. This area is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This area overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy
88	88	35.2	POL (Building 1085)	The concrete slab and hydraulic lift were removed during a CERCLA Removal Action in 2000; the contaminated soils were disposed offsite as special waste and the lift and cylinders were cleaned and disposed as scrap metal. The concrete debris was disposed offsite as construction debris. This area is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This area overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bloremediation was selected as the CERCLA remedy.
89	89	28.2	Acids (Building 1089)	Building 1089 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil in areas outside the southern end of the building were excavated to a depth of one foot and replaced with clean backfill. The excavated soil was disposed off-site as special waste. This CERCLA Removal Action was completed in 2000. This area is located in FU 3 on the MI for which the selected CERCLA remedy includes land use controls. This area overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
Operable U	nit 3: Souti	heastern Wa	atershed And Golf Course, MI	i remedy.
25	25	3.8	Golf Course Pond	This unit is in FU 2 on the MI for which the selected CERCLA remedy includes land use controls.
26	26	3.6	Lake Danielson	This unit is located in FU 2 on the MI for which the selected CERCLA remedy includes land use controls
30	30	4.4	Paint Spray Booths (1 of 3 total - Building 260)	No further action is required for this unit; however, it is located in FUs 3 & 6 on MI for which the selected CERCLA remedy includes land use controls

**TABLE 3-1** POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup>	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION
40	40	4, 19, and 21	Safety Kleen Units - 4 of 9 total units (Buildings 253, 469, 490, and 689)	No further action is required for these units; however, they were located in FUs 3, 5 and 6 on the MI for which the selected CERCLA remedy includes land use controls.
41	41	4 and 19	Satellite Drum Accumulation Areas - 2 of 4 total areas (Buildings 260 and 469)	The units were located in FUs 1, 3, 5 and 6 on the MI for which the selected CERCLA remedy includes land use controls.
48	48	5.2	Former PCB Transformer Storage Area	Site remediation by removal of surface soil was completed in 1998. This unit is located in FU 6 on the MI for which the selected CERCLA remedy includes land use controls. This unit overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
49	49	17.3	Medical Waste Storage Area	No further action is required for this unit; however, it is located in FU 5 on the MI for which the selected CERCLA remedy includes land use controls.
51 (AOC B)	51	3.7	Lake Danielson Outlet Ditch	No further action is required for this area; however, it is located in FU 2 on the MI for which the selected CERCLA remedy includes land use controls.
52 (AOC C)	52	3.9	Golf Course Pond Outlet Ditch	No further action is required for this area; however, it is located in FU 2 on the MI for which the selected CERCLA remedy includes land use controls.
58	58	4.9	Pesticides, Herbicides (Pad 267)	This area is located in FU 6 on the MI for which the selected CERCLA remedy includes land use controls. This area overlies a groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
59	59	4.10	Pesticides, Cleaners (Building 273)	This unit is located in FU 2 on the MI for which the selected CERCLA remedy includes land use controls. This site overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCI A remedy.
65	65	7.2	XXCC-3 (Building 249)	No further action is required for this unit; however, it is located in FU 1 on the MI for which the selected CERCLA remedy includes land use controls
66	66	4.11	POL (Building 253)	This unit is located in FU 6 on the MI for which the selected CERCLA remedy includes land use controls. The unit overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
67	67	4.7	MOGAS (Building 257	This area is located in FU 6 on the MI for which the selected CERCLA remedy includes land use controls. This area overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
68	68	4.8	POL (Building 263) (20 by 40 feet)	This area is located in FU 6 on the MI for which the selected CERCLA remedy includes land use controls. This area overlies the groundwater treatment area of FU 7, Groundwater at the MI, where enhanced bioremediation was selected as the CERCLA remedy.
69	69	3.11	2,4-D, M2A1, and M4 Flamethrower Liquid Fuels (surface application)	This area is located in FU 2 on the MI for which the selected CERCLA remedy includes land use controls.
73	73	Multiple	2,4-Dichlorophenoxyacetic Acid (all grassed areas)	This area is located throughout the MI for which the selected CERCLA remedy includes land use controls

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

## TABLE 3-1 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER( a)	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION OF SITE <sup>(b)</sup>
75	75	21.5	Unknown Wastes near Building 689	This area is located in FU 5 on the MI for which the selected CERCLA remedy includes land use controls.
76	76	21.5	Unknown Wastes near Building 690	This area is located in FU 5 on the MI for which the selected CERCLA remedy includes land use controls.
77	77	22.2	Unknown Wastes near Buildings 689 and 690	This area is located in FU 5 on the MI for which the selected CERCLA remedy includes land use controls.
78	78	21.3	Alcohol, Acetone, Toluene, Naphtha; Hydrofluoric Acid Spill	This area is located in FU 5 on the MI for which the selected CERCLA remedy includes land use controls.
Operable U	nit 4: North-	Central Area	, MI	
28	28	32.3	Recoupment Area (Building 865)	No further action is required for this site; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
35	35	15.2	DRMO Building S308 - Hazardous Waste Storage	Unit was decontaminated and certified clean November 2001 in accordance with the RCRA Closure Plan (Permit TNHW-053). No further action is required for this unit; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
36	36	15.5	DRMO Hazardous Waste Concrete Storage Pad	This unit is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
37	37	15.5	DRMO Hazardous Waste Gravel Storage Pad	This unit is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls
38	38	15.5	DRMO Damaged/Empty Hazardous Materials Drum Storage Area	This unit is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
39	39	15.5	DRMO Damaged/Empty	This unit is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
41	41	13.4	Satellite Drum Accumulation Area (1 of 4 total - Building 210)	The units were located in FUs 1, 3, 5 and 6 on the MI for which the selected CERCLA remedy includes land use controls.
42	42	33.9	Former pentachlorophenol Dip Vat Area	In 1986, the dip vat was removed and the soil was excavated to a depth of 10 feet. Soil with PCP concentrations greater than 200 ppb remained beneath the excavated area. The excavation was backfilled with clean soil and with gravel or concrete placed on top of the fill. No further remedial action is required for this unit. This unit is located in FU 4 on the MI for which the selected CERCI A remedy includes land use controls
43	43	33.9	Former Underground pentachlorophenol Tank Area	The tank was brought above ground in 1986 and drained into drums. The soil around the unit was excavated to a depth of 10 to 15 feet, 20 feet wide and 22 feet long. The pumps and lines were also removed. The excavation was backfilled with clean soil and with gravel or concrete placed on top of the clean fill. No further remedial action is required for this unit. This unit is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
44	44	33.6	Former Wastewater Treatment Unit Area	No further action is required for this site; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
45	45	33.9	Former Contaminated Soil Staging Area	No further action is required for this site; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls
46	46	33.9	Former pentachlorophenol Pallet Drying Area	This unit is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.

**TABLE 3-1** POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

IRP/SWMU SITE NUMBER	DSERTS SITE NUMBER <sup>(</sup>	MDRA PARCEL NUMBER	DESCRIPTION	CURRENT DISPOSITION
47	47	33.9	Former Contaminated Soil Drum Storage Area (removed 1988)	No further action is required for this unit; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
53 (AOC D)	53	30.2	X-25 Flammable Solvents Storage Area (near Building 925)	No further action is required for this area; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
54 (AOC E)	54	15.6	MI - DRMO East Stormwater Runoff Canal	No further action is required for this area; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
55 (AOC F)	55	15.6	MI - DRMO North Stormwater Runoff Canal	No further action is required for this area; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
56 (AOC G)	56	29.3	MI - West Stormwater Drainage Canal	No further action is required for this area; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
57 (AOC H)	57	12.1	Building 629 Spill Area	This area is located in FU 1 on the MI for which the selected CERCLA remedy includes land use controls.
70	70	Multiple	POL, Various Chemical Leaks (railroad tracks 1, 2, 3, 4, 5, and 6)	This area is located throughout the MI for which the selected CERCLA remedy includes land use controls.
71	71	Multiple	Herbicide (all railroad tracks) (used to clear tracks)	This area is located throughout the MI for which the selected CERCLA remedy includes land use controls.
72	72	15.5/15.6	Waste Oil (DRMO yard) (surface application for dust control)	This area is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
73	73	Multiple	2,4-Dichlorophenoxyacetic Acid (all grassed areas)	This area is located throughout the MI for which the selected CERCLA remedy includes land use controls.
74	74	15.3	Flammables, Toxics (West End - Building 319)	No further action is required for this area; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
79	79	15.6	Fuels, Miscellaneous Liquids, Wood, and Paper (Vicinity S702)	No further action is required for this area; however, it is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
80	80	33.13	Fuel and Cleaners Dispensing (Building 720)	This area is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
81	81	33.7	Fuel Oil AST (Building 765 – removed in 1994)	This area is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.
83	83	30.5	Disposal of Dried Paint Residues - South of Building 949	Lead contaminated soil was removed from an area of approximately 7,200 square feet. The CERCLA Removal Action was completed in 2001. This area is located in FU 4 on the MI for which the selected CERCLA remedy includes land use controls.

Notes:

AOC: AST: CWM: DDT: DRMO: FU: MI: MOGAS: Na: PCB: PO₄: POL:	Area of Concern Aboveground Storage Tank Chemical Warfare material Chemical Warfare Management Plan 4,4'-Dichlorodiphenyltrichloroethane Defense and Reutilization Marketing Office Functional Unit Main Installation Motor gasoline Sodium Polychlorinated biphenyl Phosphate Petroleum, oil, and lubricants
--	---

### Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

.

#### TABLE 3-1 POTENTIAL CONTAMINATION SITES ASSOCIATED WITH OPERABLE UNITS

Defense Site Environmental Restoration Tracking System (DoD Database)

a. b.

Source: DLA correspondence dated September 24, 2004, RE: Corrective Action Permit Application and Attachment 1 Summary of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) Defense Depot Memphis, Tennessee

.

Ĩ

BUILDING	DATE	SPILLED MATERIAL	QUANTITY	INSIDE/ OUTSIDE	LOCATION/COMMENTS	ACTION TAKEN
209	4/14/94	Microbicide	1 quart	Inside	Boiler room	Absorbent applied. Product taken to DRMO for disposal.
251	1/30/95	Oil	0.5 gation	Outside	West end	Absorbent applied. Product taken to DRMO for disposal.
254	3/20/95	Diesel	5 gallons	Outside	Southwest corner (tank)	Absorbent applied. Product taken to DRMO for disposal.
257	4/20/90	Gasoline	1-2 gallons	Outside	Gas station. Product overflowed from tank vent while being filled.	Soil was excavated and taken to Dunn Field to aerate.
257	8/11/93	Gasoline	4 gallons	Outside	Gas statton. UST overflowed through vent pipe white being filled	Absorbent applied. Product taken to DRMO for disposal.
257	8/31/93	Gasoline	4 gallons	Outside	Main tank spewed gas out of pressure tube	Absorbent applied Product taken to DRMO for disposal.
309	3/26/91	Dielectric Fluid (non-PCB)	<1 gallon	Outside	Leaking transformer West of Building 309 in DRMO yard.	Absorbent applied. Product taken to DRMO for disposal.
309	12/2/91	Cleaning compound solvent	30 gations	Outside	On B Street, Southwest of Building 309	Absorbent applied. Contaminated material excavated, containerized and taken to DRMO for disposal.
349	3/5/93	Hydraulic Fluid	6 gallons	Outside	Section 3 - North dock	Absorbent applied Product taken to DRMO for disposal.
359	8/27/93	Sulfuric acid	1 pint	Inside	Section 2 - Charging station, battery boiled over	Product neutralized, containenzed and taken to DRMO for disposal.
449	7/27/93	Lube oil	<55 gallons	Outside	North dock	Absorbent applied. Product taken to DRMO for disposal.
449	4/7/95	Hydraulic Fluid	1 gallon	Outside	Section 3 - West side dock	Absorbent applied. Product taken to DRMO for disposal.
469	12/16/93	Transformer olf containing PCBs	.5 pint	Inside	South side door on wall down to floor Some product was absorbed by concrete on wall and floor.	Absorbent applied. Product taken to DRMO for disposal.
489	6/10/93	Sulfuric acid	2 gallons	Outside	Section 5 - outside between Buildings 489 and 490, stock selector turned over on gravel drive	Product neutralized, containenzed and taken to DRMO for disposal.
489	11/3/95	80w90 bio	1 gallon	Outside	Section 4 - North dock	Absorbent applied. Product taken to DRMO for disposal.
490	6/1/94	Sulturic acid	1 ouart	Inside	Section 5 - outside between Buildings 489 and 490, stock selector turned over on gravel drive	Product neutralized, containerized and taken to DRMO for disposal.

.

90

BUILDING	DATE	SPILLED MATERIAL	QUANTITY	INSIDE/ OUTSIDE	LOCATION/COMMENTS	ACTION TAKEN
490	9/27/94	Cleaner/degreaser	1 gallon	Inside	South dock - leaking containers inside truck.	Absorbent applied. Product taken to DRMO for disposal.
490	12/15/95	Sulfuric acid	1 gallon	Inside	Section 5 - Southwest side	Product neutralized, containenzed and taken to DRMO for disposal.
529	8/10/93	Hydraulic Fluid	1 gation	Inside	South dock, Section 2, Door 2 - forklift hase burst	Absorbent applied. Product taken to DRMO for disposal.
529	8/11/93	Hydraulic Fluid	2 quarts	Outside	North Dock - Loose hose on forklift	Absorbent applied. Product taken to DRMO for disposal.
549	2/25/94	Hydraulic Fluid	1 gallon	Outside	South side at Door 8 on road	Absorbent applied. Product taken to DRMO for disposal.
549	4/7/94	Hydraulic Fluid	5 gallons	Outside	Section 3 - loading dock	Absorbent applied. Product taken to DRMO for disposal.
560	12/10/93	Sulfuric acid	<1 gallon	Inside	Section 3 - battery fell off charger	Product neutralized, containenzed and taken to DRMO for disposal
560	10/17/95	Aqueous film forming foam	5 gallons	Inside	Section 3 - West side wall	Absorbent applied. Product taken to DRMO for disposal.
560	11/14/96	Aqueous film forming foam	15 gallons	Inside	Section 3 - Cargo Door 10	Absorbent applied. Product taken to DRMO for disposal.
629	4/23/90	Nitric acid	6 gallons	Inside	Section 1	Product neutralized, containenzed and taken to DRMO for disposal
629	6/24/94	Formaldehyde	2 pints	Outside	North side on C Street	Absorbent applied. Product taken to DRMO for disposal.
649	5/16/90	Paint, lube oil, insecticide, other oil	3 quarts	Outside	Leaking containers near the east end dumpster	Absorbent applied. Product taken to DRMO for disposal.
649	8/11/95	Hydraulic Fluid	1 gallon	Inside	Section 5 - Southwest and Northwest corner	Absorbent applied. Product taken to DRMO for disposal.
650	3/18/93	Battery acıd, hydraulıc fluid	<1 gallon	Outside	South corner in street	Product neutralized, containenzed and taken to DRMO for disposal.
670	5/4/90	Battery electrolyte	10 gallons	Outside	6th Street and Building 670	Product neutralized, containenzed and taken to DRMO for disposal.
670	8/30/95	Hydraulic Fluid	1 galton	Inside	Section 1 - North side aisle	Absorbent applied. Product taken to DRMO for disposal.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

Page 2 of 7

BUILDING	DATE	SPILLED MATERIAL	QUANTITY	INSIDE/ OUTSIDE	LOCATION/COMMENTS	ACTION TAKEN
685	4/16/92	sulfuric acid and water	3 galtons	Inside	Battery charging station	Product neutralized, containerized and taken to DRMO for disposal.
689	5/8/90	Nitric acid	1 pint	Inside	Section 5 - "Hot House"	Product neutralized, containerized and taken to DRMO for disposal.
689	1/6/91	Corrosian removing compound	2 galions	Outside	Section 5 - Door 8	Absorbent applied Product taken to DRMO for disposal.
689	2/13/92	Hydraulic Fluid	2 gallons	Inside	Section 4 - North dock	Absorbent applied. Product taken to DRMO for disposal.
689	1/2/93	Carbon removing compound	1 gallon	Inside	Section 5 - Leaking drum inside trailer	Absorbent applied. Product taken to DRMO for disposal.
689	9/30/93	Corrosion removing compound	<55 gallons	Inside	Bay 6 - leaking containers	Absorbent applied. Product taken to DRMO for disposal.
689	6/13/94	Deicer	40 gallons	Outside	Section 4 - Northwest end, Door 31, on street	Absorbent applied. Product taken to DRMO for disposal.
689	1/17/95	Oil	2.5 gallons	Outside	Section 3 - Back door	Absorbent applied. Product taken to DRMO for disposal.
689	8/15/95	Hydraulic Fluid	2 gallons	Outside	Section 5 - Door 8	Absorbent applied. Product taken to DRMO for disposal.
689	10/12/95	Sulture acid	1 gation	Inside	Section 5 - Southwest side at Door 34	Product neutralized, containerized and taken to DRMO for disposal.
689	11/6/95	Hydraulic Fluid	2 galions	Outside	Section 5 - West dock, Door 8	Absorbent applied. Product taken to DRMO for disposal.
689	11/15/95	Hydraulic Fluid	1.25 galions	Inside	Section 3 - Southwest corner	Absorbent applied. Product taken to DRMO for disposal
689	11/16/95	Hydraulic Fluid	0.3 gallon	Inside	Northeast corner	Absorbent applied. Product taken to DRMO for disposal.
690	2/17/94	Turbine engine oil	10 gallons	Outside	West side loading dock	Absorbent applied. Product taken to DRMO for disposal.
690	3/31/94	Sulfuric acid	.5 quart	Outside	West side loading dock	Product neutralized, containenzed and taken to DRMO for disposal.
737	11/9/95	Mineral oil <1ppm PCB	50 gallons	Outside	West side	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal

17

92

.

·

BUILDING	DATE	SPILLED MATERIAL	QUANTITY	INSIDE/ OUTSIDE	LOCATION/COMMENTS	ACTION TAKEN
770	06/6/2	Mineral oil containing PCBs (>50ppm, <500ppm)	50 gations	Outside	West side, 14.5 cubic yards of contaminated soil excavated. Confirmatory samples taken.	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.
<u>77</u> 0	11/8/91	Petroleum	<55 gallons	Outside	55-gallons drum ruptured on the West side	Absorbent applied. Soil excavated, containenzed and all products taken to DRMO for disposal.
835	3/9/91	Battery acid	9 galtons	Inside	Section 3	Product neutralized, containerized and taken to DRMO for disposal.
835	6/25/91	Hydrochloric acid	5 galions	Inside	Section 4 - R84 dock area	Product neutralized, containerized and taken to DRMO for disposal.
835	7/1/91	Ammonium hydroxide	6 gallons	Inside	Section 2 - Charging station, battery boiled over	Neutralized spill with gracial acetic acid. Absorbent applied. Product containenzed and taken to DRMO for disposal
835	10/2/91	Sulfuric acid	15 gallons	Inside	Section 3 - Corrosive section	Product neutralized, containerized and taken to DRMO for disposal.
835	11/19/91	Battery fluid acid	6 gallons	Inside	Section 3	Product neutralized, containerized and taken to DRMO for disposal.
835	11/19/91	Sulturic acid	5 gallons	Inside	Section 4	Product neutralized, containerized and taken to DRMO for disposal.
835	3/17/92	Munatic acid	1.5 gallons	Inside	Section 3	Product neutralized, containerized and taken to DRMO for disposal.
835	1/15/93	Hydraulic Fluid	.5 gallons	Inside	R87 location - Line on stock selector broke	Absorbent applied. Product taken to DRMO for disposal.
835	2/22/93	Orthodontic resin	1 pint	Inside	Section 3 - Packing area. Glass bottle fell and broke.	Absorbent applied. Product taken to DRMO for disposal.
835	6/28/93	Calcium Hypochlonte	5 pounds	Inside	Section 2 - Oxidizer section	Product swept, containenzed and taken to DRMO for disposal.
835	7/22/93	Herbicide (Benefin), granular	Several pounds	Inside	Section 5 - 25 each damaged 40-lbs bags	Product swept, containenzed and taken to DRMO for disposal.
835	8/31/93	Cleaning compound solvent	2.5 gallons	Inside	Section 3	Product neutralized, containerized and taken to DRMO for disposal.
835	10/1/93	Hydrofluoric acid	1 gallon	Inside	Section 3 - Corrosive section	Product neutralized, containenzed and taken to DRMO for disposal.
835	11/12/93	Xylene	1 gallon	Inside	Section 5	Absorbent applied. Product taken to DRMO for disposal.

93

883

January 2007

BUILDING	DATE	SPILLED MATERIAL	QUANTITY	INSIDE/ OUTSIDE	LOCATION/COMMENTS	ACTION TAKEN
835	3/1/94	Sulfuric acid	10 gailons	Inside	Section 3 - Corrosive section	Product neutralized, containerized and taken to DRMO for disposal.
835	4/5/94	Stentizer solution	.5 gallons	Inside	Section 1 - Caps ruptured on 4 1-liter bottles	Product neutralized, containenzed and taken to DRMO for disposal.
835	4/5/94	Ethanol	.5 gallons	Inside	Section 1	Absorbent applied. Product taken to DRMO for disposal.
835	4/15/94	Éthanol	2 gallons	Inside	4 each 1-gallons jugs spiiled about 1/2 gallons each	Absorbent applied. Product taken to DRMO for disposal.
835	6/9/94	Microbicide	1 quart	Inside	Section 3	Absorbent applied. Product taken to DRMO for disposal.
835	8/18/94	Cleaning compound solvent	2.5 gallons	Outside	West loading dock	Product neutralized, containerized and taken to DRMO for disposal.
835	11/23/94	Phosphoric acid	2 quarts	Inside	Section 5	Product neutralized, containerized and taken to DRMO for disposal.
835	3/5/95	Sulfuric acid	2.5 gallons	Inside	Section 3	Product neutralized, containerized and taken to DRMO for disposal.
835	5/26/95	Transmission fluid	10 gallons	Outside	Section 4 - West side	Absorbent applied. Product taken to DRMO for disposal.
860	3/17/92	Lube oil	Several quarts	Inside	North side	Absorbent applied. Product taken to DRMO for disposal.
860	1/13/94	Lube oił	3 gallons	Inside	North side	Absorbent applied. Product taken to DRMO for disposal.
873	3/10/90	Tetrachloroethylene	60 gallons	Inside/Out	Section 2 and outside - West onto gravel	Absorbent applied. Soil excavated, containenzed and all products taken to DRMO for disposal.
873	12/7/90	Cleaning compound solvent	55 gallons	Inside	Section 1 - East side	Absorbent applied. Product taken to DRMO for disposal
873	3/9/91	Lube oil	25 gallons	Inside	Section 2	Absorbent applied. Product taken to DRMO for disposal.
873	8/16/91	Hydraulic Fluid	2 gailons	Outside	Section 1	Absorbent applied. Product taken to DRMO for disposal.
873	11/18/91	Cleaning compound solvent	10 galtons	Inside	Section 1	Absorbent applied. Product taken to DRMO for disposal.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

Page 5 of 7

,

BUILDING	DATE	SPILLED MATERIAL	QUANTITY	INSIDE/ OUTSIDE	LOCATION/COMMENTS	ACTION TAKEN
873	11/18/91	Cleaning compound solvent	20 gallons	Inside	Section 1	Absorbent applied. Product taken to DRMO for disposal.
873	11/26/91	Fog oil	55 gallons	Outside	Section 7 - West side	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.
873	11/26/91	Cleaning compound solvent	18 gallons	Outside	Section 3	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.
873	2/13/92	Descaling compound	10 gallons	Inside	Section 6 - loading dock	Absorbent applied. Product taken to DRMO for disposal.
873	3/2/92	Lube oil	55 galions	Outside	Southwest corner	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.
873	7/12/93	Lube oil	25 gallons	Outside	G Street at 15th Street, Northwest of Building 873	Absorbent applied. Product taken to DRMO for disposal.
873	7/21/93	Corrasion removing compound	1.5 gallons	Inside	Section 6 - drums corroded	Product neutralized, containenized and taken to DRMO for disposal.
873	8/6/93	Corrosion removing compound	.75 gallons	Inside	Section 5 - leaking drum	Product neutralized, containerized and taken to DRMO for disposal.
873	10/25/93	Sulfuric acid	2 galions	Inside	Section 2 - West side	Product neutralized, containenized and taken to DRMO for disposal.
873	11/29/93	Hydroffuoric acid	3 galions	Inside	Section 6 - leaking bottles	Product neutralized, containenzed and taken to DRMO for disposal.
873	4/7/94	Hydroftuonc acid	.5 gallons	Inside	Section 5	Product neutralized, containenzed and taken to DRMO for disposal.
873	6/8/94	Tincture benzoin	3 pints	Inside	Section 2	Absorbent applied. Product taken to DRMO for disposal.
873	7/11/94	Diethlene glycol	55 gallons	Outside	Northwest end	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.
873	8/11/94	Methanoł	3 pints	Inside	Section 2 - Most of spill evaporated	Absorbent applied. Product taken to DRMO for disposal.
873	8/29/94	Transmission fluid	5 gallons	Outside/In	Forklift line broke in Building 873 Section 3. Forklift driven through Section 2 across X03 to Building 770	Absorbent applied. Product taken to DRMO for disposal.
875	3/6/93	Malathion	2 gallons	Outside/In	Inside Roadway Trailer. 2 drums fell and leaked	Absorbent applied. Product taken to DRMO for disposal.

Page 6 of 7

•

**9**5

883

.

ľ

Ĩ

				INSIDE/			
200	UALE 12/6/95	SPILLED MAILEKIAL	2 quarts	Outside	East side on 15th Street	Absorbent applied. Product taken to DRMO for disposal.	3
2	10/5/93	Hydraulic Fluid	34 gallons	Outside	On the road to Building 770	Absorbent applied. Product taken to DRMO for disposal.	
12	3/14/95	Diesel	3 gallons	Outside	West side	Absorbent applied. Product taken to DRMO for disposal.	
95	9/13/93	Gasoline	10 gallons	Outside	Northwest of Building 995 on road - Truck tank punctured	Absorbent applied. Product taken to DRMO for disposal.	
treet	5/23/94	Sulturic acid	30 gallons	Outside	South of Gate 20 - west of 309/308	Product neutralized Soil excavated, containenzed and all products taken to DRMO for disposal.	
te -	10/28/93	Diesel Fuel	2 gallons	Outside	Gate 1 in street	Absorbent applied. Product taken to DRMO for disposal.	
te 	1/14/94	Diesel Fuel	5 galions	Outside	Gate 1 in street	Absorbent applied. Product taken to DRMO for disposal.	
te T	3/22/95	Motor oil	4 gallons	Outside	Gate 1 parking lot	Absorbent applied. Product taken to DRMO for disposal.	
e 15	9/12/95	Hydraulic Fluid	1.25 gallons	Outside	A Street and 11th Street - North through Gate 15 to Dunn Field	Absorbent applied. Product taken to DRMO for disposal.	
02	6/3/94	Mineral oil <1ppm PCB	10 gallons	Outside	Between 771 and 873 - transformer fell off truck	Absorbent applied. Product taken to DRMO for disposal.	
10	7/26/93	Ethyl acetate/Naphtha aromatic	<1 gallon of each	Outside	Damaged, leaking 55-gallon drums	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.	
50	5/7/90	Cleaning compound solvent	it of product leake	Outside	Leaking 55-gallon drums	Absorbent applied. Soll excavated, containerized and all products taken to DRMO for disposal.	
27	5/13/94	Hydraulic Fluid	25 gallons	Outside	On 27th Street from 925 to 972	Absorbent applied. Soil excavated, containerized and all products taken to DRMO for disposal.	
02	4/19/94	Hvdraulic Fhild	5 callons	Outside	G Street from 1089 to Gate 15	Absorbent applied. Product taken to DRMO for disposal.	

883

### TABLE 3-3 REMOVAL ACTIONS SUMMARY

IRP/SWMU SITE NUMBER(S)	DSERTS SITE NUMBER(S) <sup>(a)</sup>	MDRA PARCEL NUMBER(S)	DESCRIPTION	REMOVAL ACTION DESCRIPTION
42, 43, 44, 45 and 46	42, 43, 44, 45 and 46	33.9	Former PCP Dip Vat Area, Former Underground PCP Tank Area, Former Wastewater Treatment Unit Area, Former Contaminated Soil Staging Area, and Former PCP Pallet Drying Area	Approximately 602 cy <sup>3</sup> of surface and subsurface soil was removed from the PCP dip vat area because of elevated levels of PCP. Action completed in 1985.
73	73	2.7	2,4-Dichlorophenoxyacetic Acid (grassed area in Parcel 2, only)	Approximately 3,700 cy <sup>3</sup> of surface soil in the former family housing area of FU6 was removed because of the presence of dieldrin. Removal was necessary to allow for the planned residential reuse. Action completed in October 1998.
48	48	5.2		Approximately 400 cy <sup>3</sup> of surface soil surrounding the cafeteria, Building 274, was removed because of elevated levels of PCBs. Action completed in November 1998.
29, 31, 32, 33, 87, 88 and 89	29, 31, 32, 33, 87, 88 and 89	35.2, 35.5, 35.4, 35.2, 28.2	Former Underground Waste Oil Storage Tank, Former Paint Spray Booth (Building 1087), Sandblasting Waste Accumulation Area, Sandblasting Waste Drum Storage Area (metal shed south of Building 1088), DDT/ banned pesticides (Building 1084), POL (Building 1085), Acids (Building 1089)	Approximately 980 cy <sup>3</sup> of surface and subsurface soil from near Buildings 1084, 1085, 1087, 1088, 1089 and 1090 was removed because metals and PAH levels exceeded industrial standards. Action competed in August 2000.
83	83	30.5	Disposal of Dried Paint Residues - South of Building 949	Approximately 200 cy <sup>3</sup> of surface and subsurface soil from near Building 949 was removed because lead levels exceeded industrial standards. Action competed in October 2001.
60 and 85	60 and 85	36.14	Pistol Range Impact Area/Bullet Stop and Old Pistol Range Building 1184/Temporary Pesticide Storage	Approximately 930 cy <sup>3</sup> of surface soil from the former pistol range at Dunn Field was removed because lead levels exceeded residential standards. The old pistol range house was also removed during this project. Action completed in March 2003.
1	1	36.16	Mustard and Lewisite Training Sets (9 sets) Burial Site (1955)	Approximately 180 cy <sup>3</sup> of surface and subsurface soil from the suspected Chemical Agent Identification Sets burial site was removed because of suspected CWM. The soil removed contained foreign debris and sample results indicated it must be disposed of as hazardous waste, but no CWM was identified. Action completed in March 2001.

### TABLE 3-3 REMOVAL ACTIONS SUMMARY

IRP/SWMU SITE NUMBER(S)	DSERTS SITE NUMBER(S) <sup>(a)</sup>	MDRA PARCEL NUMBER(S)	DESCRIPTION	REMOVAL ACTION DESCRIPTION
24 (A and B)	24	36.29	Former Burial/Burn Site and Neutralization Pit	Approximately 29 bomb casings, 2 burster tubes and 1,220 cy <sup>3</sup> of surface and subsurface soil from the suspected bomb casing burial location (24A) were removed because of suspected CWM (mustard agent). Approximately 900 cy <sup>3</sup> of the removed soil contained mustard degradation products. Approximately 581 cy <sup>3</sup> of surface and subsurface soil from the suspected neutralization pit (24B) was removed because of suspected CWM. Approximately 33 cy <sup>3</sup> of the removed soil contained mustard or mustard degradation products. Action completed in March 2001.

#### Notes:

PCP: Pentachlorophenol

PAH: Polycyclic aromatic hydrocarbon

CWM: Chemical warfare materiel

a. Defense Site Environmental Restoration Tracking System (DoD Database)

•
0
0
$\sim$
2
ā
3
ē
ā
÷.

.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

SUBPARCEL	I OCATION	YEAR INSTALLED	<b>SIZE</b> (gals)	SUBSTANCE STORED	STATUS	FUTURE
4.11	Building 253, north side	1952	5,000	Heating oil	Removed July 1996	AN
4.6	Building 254, northwest side	AN	1,100	Gasoline	Removed December 1989	NA
4.7	Building 257	1942	12,000	Gasoline	Removed 1986	٩N
4.7	Building 257	1942	12,000	Gasoline	Removed 1986	AN
4.7	Building 257	1951	20,000	Gasoline	Removed 1986	AN
4.6	Building 257, south side	1984	18,000	Gasoline	Removed 1998	AN
4.6	Building 257, south side	1984	20,000	Gasoline	Removed 1998	NA
4.7	Building 257, west side	1951	2,580	Gasoline	Removed December 1989	ΨN
14.2	Building 209, north side	1942	12,000	Heating oil	Removed July 1994	AN
14.2	Building 209, north side	1942	500	Heating oil	Removed July 1995	ΨN
14.2	Building 209, north side	1942	500	Blower blow-down water	Removed July 1995	AN
15.6	Building 319, north side	1988	4,000	Heating oil	Removed July 1994	AN
17.2	Building 359, north side	1942	12,000	Heating oil	Closed in place July 1994	ΨN
17.2	Building 359, north side	1942	500	Heating oil	Closed in place September 1995	AN
17.2	Building 359, north side	1942	500	Blower blow-down water	Closed in place July 1994	ΨN
17.2	Building 359/4	1979	1,000	Heating oil	Removed 1993	AN
17.2	Building 359/4	1942	500	Diesel Fuel	Removed 1993	AN
24.3	Building 770, east side	1951	10,000	Heating oil	Removed July 1994	Ϋ́
24.3	Building 770, west side	AN	440	Gasoline	Removed December 1989	Ϋ́
24.3	Building 770, west side	1951	1,000	Used motor oil	Removed December 1989	Ϋ́

TABLE 3-4 UNDERGROUND STORAGE TANK SUMMARY

,

Ì

1

1 of 2

•

TABLE 3-4 UNDERGROUND STORAGE TANK SUMMARY
---

.

2		YEAR	SIZE (gals)			FUTURE
	LOCATION	INSTALLED		SUBSTANCE STORED	STATUS	ACTIONS
24.3	Building 770, west side	1951	1,000	Used motor oil	Removed December 1989	NA
25.2	Building 875, east side	1950	1,000	Heating oil	Closed in place July 1994	AN
33.9	Building 737, south side	1942	12,000	Pentachlorophenol and dioxin	Removed September 1985	AN
33.9	Building 737, west side	1986	1,000	Rodenticide pesticide/herbicide insecticide rinsate	Closed in place September 1995	NA
33.9	Building 754	1956	200	Gasoline	Removed January 1986	AN
33.11	Building 756, west side	1987	1,000	Diesel fuel	Removed July 1994	ΑN
35.2	Building 1085, east side	1942	1,000	Waste oil	Removed December 1989 (found and removed during 2000 Removal Action)	NA
35.2	Building 1085	1950	100	Hydraulic fluid	Closed in place July 1995	NA

Notes: EBS: NA: UST:

Environmental baseline survey Not applicable Underground storage tank

.

•

,

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

2 of 2

TABLE 3-5 ABOVEGROUND STORAGE TANK SUMMARY

STUDY AREA NO.	LOCATION	YEAR INSTALLE D	SIZE (gals)/ TYPE	SUBSTANCE STORED	STATUS	FUTURE ACTIONS
4	Building 257	1992	1,000/NA	Gasoline	Building demolished 1999	NA
4	Building 257	1992	1,000/NA	Diesel fuel	Building demolished 1999	NA
24	Building 770	1951	11,155/NA	Diesel fuel	Removed July 1994	NA
24	Building 770	1951	11,155/NA	Fuel oil	Removed July 1994	NA
33	Building 720	1942	12,000/NA	Diesel	Removed 1997	NA
33	Building 756	1994	1,000/NA	Diesel fuel	Active	DRC maintains

Notes:

NA:

Not applicable TBD: To be determined

SI	TABLE 3-6	<b>UBPARCEL DESCRIPTIONS</b>
		SUE

Ĩ

SUBPARCEL	LOCATION	APPROXIMATE			
NUMBER AND LABEL	(x, y coordinates)	SIZE <sup>5</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
Environmental C	Condition Category	y 1			
1.1(1)	32,10	0.01	Sentry Station/Gate 1	This subparcel is associated with the Sentry Station at Gate 1. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. The deed to the DRC for 13.36 acres was signed on May 6, 2002. This property has been transferred.	Per MI ROD effective September 9, 2001, no further action required
1.2(1)	32,13	0.0	Sentry Station/Gate 2	This subparcel is associated with Sentry Station at Gate 2. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. This property has been transferred.	Per MI ROD effective September 9, 1002, no further action required
1.3(1)	32,16	<0.01	Waiting Shelter/ Building 129	This subparcel is associated with Building 129. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel A FOST for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. The deed to the URC for 13.36 acres was signed on May 6, 2002. This property has been transferred.	Per MI ROD effective September 9, 1002, no further action required.
14(1)	31,13	<0 01	Waiting Shelter/ Building 139	This subparcel is associated with Building 139. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. The deed to the DRC for 13.36 acres was signed on May 6, 2002. This property has been transferred.	Per MI ROD effective September 9, 1002, no further action required

1 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
1.5(1)	34,12	0.31	Building 144	This subparcel is associated with Building 144. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. The deed to the DRC for 13 36 acres was signed on May 6, 2002. This property has been transferred.	Per MI ROD effective September 6, 2001, no further action required.
1.6(1)	32,13	0.02	Building 145	This subparcel is associated with Building 145. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. The deed to the transferred.	Per MI ROD effective September 6, 2001, no further action required.
1.7(1) Demolished 1999	31,10	<0.01	Waiting Shelter/ Building 155	This subparcel is associated with Building 155. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in September 2001. The deed to the City of Memphis Police Department for 4.67 acres was signed on February 6, 2002. The deed to the transferred.	Per Mi ROD effective September 6, 2001, no further action required.
2.1(1)	34,6	0.11	Building 176	This subparcel is associated with Building 176. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6.52 acres was signed on October 22, 2001. This property has been transferred.	Per MI ROD effective September 6, 2001, no further action required.
2.2(1)	34,6	0.03	Building 178	This subparcel is associated with Building 178. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6.52 acres was signed on October 22, 2001. This property has been transferred	Per MI ROD effective September 6, 2001, no further action required.
Defense Distr Rev. 1 BRAC Cle.	ribution Cent anup Plan Versid	t <b>er (Memphis)</b> on 10		January 2007	2 of 102

.

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

İ

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS°	REMEDIATION/ MITIGATION
2.3(1)	34.5	0.11	Building 179	This subparcel is associated with Building 179. There has been no documented P release or disposal of hazardous substances or petroleum products, nor has S there been migration from an adjacent property of hazardous substances or at petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6.52 acres was signed on October 22, 2001. This property has been transferred.	Per MI ROD effective September 6, 2001, no further action required
2 4(1)	34 S	0.11	Building 181	This subparcel is associated with Building 181. There has been no documented P release or disposal of hazardous substances or petroleum products; nor has S there been migration from an adjacent property of hazardous substances or at petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6.52 acres was signed on October 22, 2001. This property has been transferred.	Per Mi ROD effective September 6, 2001, no further action required
2.5(1)	34,4	0.11	Building 183	This subparcel is associated with Building 183. There has been no documented P release or disposal of hazardous substances or petroleum products. nor has S there been migration from an adjacent property of hazardous substances or at petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6.52 acres was signed on October 22, 2001. This property has been transferred.	Per MI ROD effective September 6, 2001, no further action required.
2.6(1)	34,4	0.11	Building 184	This subparcel is associated with Building 184. There has been no documented P release or disposal of hazardous substances or petroleum products. nor has S there been migration from an adjacent property of hazardous substances or at petroleum products. The EPA concurred via letter dated March 13, 1997, with the CERFA letter report Category 1 designation for this subparcel. A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6 52 acres was signed on October 22, 2001. This property has been transferred.	Per MI ROD effective September 6, 2001, no further action required.
Please see Categ 13.3, 13.4, 14 1, 1	jory 4 descriptions 15.1, 16.2, 21.1, 23	for the following subp 1.1, 23.2, 23.3, 23.4, 2	arcels that reverte 3.5, 29.1, 30.4, 3	d from Category 1 to Category 4 based on LUCs: 3.1, 3.2, 3.3, 3.4, 4.1, 4.3, 6 3, 8.2, 3.1, 33.2, 33.4 and 33.10	2, 8 3, 8.5, 9.4, 10.4, 13.1, 13.2,
Please see Categ	ory 6 descriptions	for the following subp	arcels that reverte	d from Category 1 to Category 6 based on groundwater contamination beneath the si	subparcel 4 2, 4.11 and 33.5.
Please see Categ because groundw	jory 4 descriptions ater pre-design da	for the following subp ta indicated the grour	varcels that reverte	ed in 2002 from Category 1 to Category 6 and in 2003 changed from Category 6 to Ca action would not be implemented at these subparcels: 8.4, 9 2, 9.5, 10.6, 11.3, 11.4, 1	ategory 4 based on LUCs only 17.1, 33.3 and 34.1

3 of 102

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

January 2007

TABLE 3-6 SUBPARCEL DESCRIPTIONS

Per DF ROD effective April 12, 2004, no further action required. indicates this subparcel is not included in the area requiring effective September 6, 2001, REMEDIATION/ MITIGATION necessary. The MI ROD No further remediation remedial action. motor oil spill was reported in 1995 for the Gate 1 parking lot. In addition, a diesel (Site 73) that were historically sprayed with pesticides and herbicides. A 4-gallon indicated levels of several constituents exceeding BCT screening criteria that did BCT concurred to change this subparcel from Category 7 to Category 3 The DF ROD indicates no further action required at this site. A FOST for this subparcel Parcel 1 was used in the past for administrative and employee parking purposes property to the City of Memphis. However, the City declined the property and DOI/NPS returned the property to DA In July 2006, DA offered this property for and south parking lots in this subparcel are the location of former housing units. appropriate action and disposed of all residues in accordance with federal, state and local regulations. The MI RI baseline risk assessment concluded that FU 6, surrounding Building 144 as well as Buildings 143, 146 and 147. Both the north concurred that a hazardous substance release occurred as a result of pesticide change from Category 7 to Category 3 The MI ROD indicates this subparcel is application during routine grounds maintenance, but not at concentrations that These housing units were demolished. This subparcel includes grassed areas require remediation. On January 17, 2001, the BCT concurred that Parcel 1.8 residential surrogate site that indicated restricted use was located in Parcel 4. This subparcel is associated with Site 62 (Bauxite Storage), one above-grade not present unacceptable risks for residential or industrial reuse. In 2002, the Department for 4.67 acres was signed on February 6, 2002. The deed to the not included in the area requiring remedial action. A FOST for this subparcel was signed in March 2005. On September 27, 2005 DA signed the Letter of public sale, but as of October 2006 it has not sold. This property has been transferred from DLA to DA DRC for 13.36 acres was signed on May 6, 2002. This property has been spill was reported in 1993 at Gate 1. The Spill Team responded, took the Assignment transferring 17.66 acres to DOI/NPS, which was to deed the which contains Parcels 1, 4 and 5, was suitable for industrial reuse. The and does not contain any long-term operational areas. The MI RI Report indicated levels that are not inconsistent with unrestricted use. The BCT covered bauxite pile. DNSP removed the pile in 1998. The DF RI Report was signed in September 2001. The deed to the City of Memphis Police This subparcel is associated with the parking lots and open land area BASIS<sup>c</sup> Environmental Condition Category 2: No subparcels designated Category 2. transferred Site 62 (Bauxite north and south parking lots and open land area oxyacetic acid, Buildings 143, dichlorophen-Site 73 (2,4-146 and 147 surrounding all grassed Storage) FACILITY areas) Ь APPROXIMATE SIZE b (acres) 17.68 0.92 Environmental Condition Category 3 coordinates) LOCATION 23,11 33,12 X, Y NUMBER AND SUBPARCEL LABEL 36.12(3) 1.8(3)

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

4 of 102

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

r			
REMEDIATION/ MITIGATION	Per DF ROD effective April 12, 2004, no further action required.	Per DF ROD effective April 12, 2004, no further action required.	Per DF ROD effective April 12, 2004, no further action required.
BASIS <sup>E</sup>	This subparcel is associated with Site 62 (Bauxite Storage), two above-grade covered bauxite piles. DNSP removed the piles in 1998. The DF RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for residential or industrial reuse In 2002, the BCT concurred to change this subparcel from Category 7 to Category 3. The DF ROD indicates no further action required at this site. A FOST for this subparcel was signed in March 2005. On September 27, 2005 DA signed the Letter of Assignment transferring 17.66 acres to DOI/NPS, which was to deed the property to DA. In July 2006, DA offered this property for public sale, but as of October 2006 it has not sold. This property for transferred from DLA to DA.	This subparcel is associated with Site 19 (Former Tear Gas Canister Burn Site) where sanitary wastes, construction debris, smoke pots, and tear gas canisters where disposed of from 1955 to 1960. The DF RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for residential or industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 3. The DF ROD indicates no further action required at this sub- A Signed in March 2005. On September 27, 2005 DA signed the Letter of Assignment transferring 17.66 acres to D0/NPS, which was to deed the property to the City of Memphis. However, the City declined the property and D0/NPS returned the property to DA. In July 2006, DA offered this property for public sale, but as of October 2006 it has not sold. This property has been transferred from DLA to DA.	This subparcel is associated with Site 20 (Probable Asphalt Burial Site) where asphalt and roofing gravel were dumped in a surface fill, but were reportedly removed in 1981. The DF RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for residential, recreational or industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 3. The DF ROD indicates no further action required at this site. A FOST for this subparcel was signed in March 2005. On September 27, 2005 DA signed the Letter of Assignment transferring 17.66 acres to DOI/NPS, which was to deed the property to the City of Memphis. However, the City declined the property and DOI/NPS returned the property to DA. In July 2006. DA offered this property for public sale, but as of October 2006 it has not sold. This property has been transferred from DLA to DA.
FACILITY	Site 62 (Bauxite Storage) DF	Site 19 (Former Tear Gas Canister Burn Site) DF	Site 20 (Probable Asphalt Burial Site) DF
APPROXIMATE SIZE <sup>b</sup> (acres)	e. e	0.08	0.34
LOCATION (x, y coordinates)	27,11	28,11	30,10
SUBPARCEL NUMBER AND LABEL	36.13(3)	36.24(3)	36 25(3)

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

5 of 102

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
36.26(3)	31,13	0.51	Site 21 (XXCC-3 Burnal Site) DF	This subparcel is associated with Site 21 (XXCC-3 Burial Site) that consists of two trenches of unknown depths where an unknown amount of XXCC-3 impregnite (used to make clothing less susceptible to the effects of chemical warfare agents) and clothing treated with XXCC-3 impregnite was buried. The DF RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable fiss for residential, recreational or industrial reuse. In 2002, the BCT concurred to change this subparcel from industrial reuse. In 2002, the BCT concurred to change this subparcel from this site. A FOST for this subparcel was signed in March 2005, DA signed the deed to the City of Memphis for 1.57 acres. This property was used in the Hays Road expansion project. This property has been	Per DF ROD effective April 12, 2004, no further action required.
36.27(3)	31,12	<u>ب</u>	Site 50 (AOC A/ DF Northeast Quadrant Drainage Ditch) DF DF	This subparcel is associated with Site 50 (AOC ADF Northeast Quadrant Drainage Ditch), a concrete-lined drainage ditch collects stormwater runoff from surrounding areas. In 2004, the BCT concurred to change the subparcel boundary to eliminate the area situated above groundwater contamination along the northern fence line (north subparcel boundary now ends about 225 feet south of the northern fence line). The DF RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable isks for residential, recreational and industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for groundwater remedial actions along the northern fenceline. The DF ROD indicates no further action required for the portion of this site included in this subparcel. In 2004, the BCT concurred to change this subparcel from Category 3. A FOST for this subparcel from 2005 On September 27, 2005 DA, signed the Letter of Assignment transferring 2005 On September 27, 2005 DA signed the Letter of Assignment transferring Howwer, the City declined this property and DOI/NPS returned the property to DA. In July 2006, DA offered this property for public sale, but as of October 2006 it has not sold. This property has been transferred from DLA to DA.	Per DF ROD effective April 12, 2004, no further action required

883 107

6 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007
REMEDIATION/ MITIGATION	Per DF ROD effective April 12, 2004, no further action required
BASIS <sup>e</sup>	This subparcel is associated with the open land area east of the railroad tracks of DF excluding Subparcels 36.12 and 36.13 and includes Site 63 (Fluorspar Storage). Of the 11 fluorspar mounds included in Site 63, ten were situated in this subparcel. DNSP removed the all 11 mounds by 1999. In 2004, the BCT concurred to change the subparcel boundary to eliminate the area situated above groundwater contamination along the northern fence line (north subparcel boundary now ends about 225 feet south of the northern fence line (north subparcel boundary now ends about 225 feet south of the northern fence line (north subparcel boundary now ends about 225 feet south of the northern fence line (north subparcel stochange the western boundary to coincide with the area identified in the DF ROD as available for unresticted reuse. This subparcel containing PCP. This subparcel also contains grassed (Site 71) that were historically sprayed with pesticides, and waste oil containing PCP. This subparcel also contains grassed (Site 73) and gravel areas that were historically sprayed with pesticides and herbicides, and waste oil containing PCP. This subparcel also contains grassed (Site 73) and gravel areas that were historically sprayed with pesticides and herbicides, but were areas that were historically sprayed with pesticides and herbicides. The DF RI Report indicated several constituents exceeding BCT screening ortenia <sup>2</sup> that did not present unacceptable risk for residential reuse, but were areasing ruteniar to levels identified throughout Shelby County and will not require for the portion of this subparcel from Category 7 to Category 6 based on the anticipated need for groundwater remedial action <sup>1</sup> to 2002, the BCT concurred to change this subparcel from Category 6 based on the anticipated need for groundwater remedial action <sup>1</sup> to 2002, the BCT concurred to change this subparcel from Category 6 based on the anticipated need for groundwater remedial action <sup>1</sup> to 2002, the BCT concurred to change this subparcel from tremed
FACILITY	Open land area east of railroad tracks, excluding existing subparcels Site 63 (Fluorspar State 71 (Herbicide, all railroad tracks) Site 73 (2,4- dichlorophen- oxyacetic acid, all grassed areas)
APPROXIMATE SiZE <sup>b</sup> (acres)	22 58 (based on the survey performed for the transfer the area is 21.76 acres)
LOCATION (x, y coordinates)	- 28,12
SUBPARCEL NUMBER AND LABEL*	36.30(3)

I

7 of 102

January 2007

TABLE 3-6 SURPARCEL DESCRIPTIONS	
-------------------------------------	--

.

SUBPARCEL NUMBER AND LABEL <sup>1</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>°</sup>	REMEDIATION/ MITIGATION
36.31(3)	28,13	5.22 (based on the survey performed for the transfer the area is 1.06 acres)	75-foot strip along Hays Rd. from Person Ave. to Dunn Ave. for road widening project Site 73 (2,4- dichlorophen- oxyacetic acid, all grassed areas)	This subparcel is associated with an open land area of DF along Hays Street from Person Avenue to Dunn Avenue excluding Subparcel 36.26. The DRC requested this subparcel due to a Memphis road works project to expand Hays Street. In 2004, the BCT concurred to change the subparcel boundary eliminating the area situated above groundwater contamination along the northern fence line (northeast corner of subparcel boundary now ends about 163.37 south of the northwest corner of subparcel boundary now ends about 163.37 south of the northwest corner of subparcel boundary contains grassy areas (Site 73) that were historically sprayed with pesticides and herbicides. The DF RI Report indicated levels of several constituents exceeding BCT screening criteria <sup>2</sup> that did not present unacceptable nsks for residential or industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for groundwater remedial actions along the northern fencelline. The DF ROD indicates no further BCT for this subparcel was signed in March 2005. On September 2, 2005, DA signed the deed to the City of Memphis for 1.57 acres. This property was used in the Hays Road expansion project. This property has been transferred.	Per DF ROD effective April 12, 2004, no further action required
36.32(3)	36,13	7.82 (based on the survey performed for the transfer the area is 12.54 acres)	Open land area in northeast corner (recreation area) excluding existing subparcels Site 73 (2,4- dichlorophen- oxyacetic acid, all grassed areas)	This subparcel is associated with the open land area in the northeast corner of DF, excluding Subparcels 36.14, 36.25, 36.26 and 36.27. The Depot created this subparcel due to interest in the area as a future recreation/park area. In 2004, the BCT concurred to change the subparcel boundary eliminating the area situated above groundwater contamination along the northern fence line (north subparcel boundary now ends about 225 fee 73) that were historically sprayed with pesticides and herbicides. The DF RI Report indicated several constituents exceeding BCT screening cittera? That did not present unacceptable risks for residential, recreational or industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for groundwater remedial actions along the northern fience line. This subparcel from Category 3. A FOST for this subparcel from this subparcel from category 6 to change this subparcel from category 6 to change this subparcel from Category 7 to Category 6 based on the anticipated need for groundwater remedial actions along the northern fine cateford in this subparcel from Category 3. A FOST for this subparcel was signed in March 2005. On Soptember 27, 2005 DA signed the Letter of Assignment transferring 17 6D acres to D0/NPS, which was to deed the property to the City of Memphis. However, the City declined the property and D0/NPS returned the property to DA in July 2006, DA offered this property for public sale, but as of October 2006 it has not sold. This property has been transferred from DLA to DA	Per DF ROD effective April 12, 2004, no further action required.

8 of 102

883 109

	REMEDIATION/ MITIGATION		Removal action completed in 1998. Per MI ROD effective September 6, 2001, no further remediation necessary.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
	BASIS <sup>¢</sup>		This subparcel is associated with the open land area surrounding the former military family housing units and garages in Parcel 2 Four BRAC soil samples were collected and sample results indicated levels of chlorinated hydrocarbon pesticides (dieldrin, DDE, DDT and gamma-chlordane) above BCT screening criteria. The Depot elected to conduct a removal action at this subparcel to allow for unrestricted reuse. In September 1997, the BCT changed this subparcel to allow for unrestricted reuse. In September 1997, the BCT changed this subparcel to allow for unrestricted reuse. In September 1997, the BCT changed this subparcel to allow for unrestricted reuse. In September 1997, the BCT changed this subparcel to allow for unrestricted reuse. In September 1997, the BCT changed this subparcel to a Category 6 due to the presence of dieldrin and the DRC's high priority for reuse of this subparcel. The Depot completed the removal action was complete and to change 1999, the BCT concurred that the removal action was complete and to change this subparcel from Category 6 to Category 4 based on the successful completion of this removal action. The MI ROD Indicates this subparcel is not included in the area requiring remedial action. A FOST for this subparcel was signed in February 2001. The deed to Alpha Omega Veterans Services for 6.52 acres was signed on October 22, 2001. This property has been transferred.	This subparcel is associated with Building 193. There has been no documented release or disposal of hazardous substances or petroleum products, nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for residential recreational or industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD called for remedial action in the form of LUCs to maintain a boundary fence around Parcel 3, to prevent use of fluvial aquifer that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. On September 29, 2005, DA signed the Letter of Assignment transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by
	FACILITY		Open land area surrounding the military family housing units and garages Site 73 (2,4- dichlorophen- oxyacetic acid, all grassed areas)	Building 193
APPROXIMATE	SIZE <sup>b</sup> (acres)	gory 4	5 94	0.01
LOCATION	(x, y coordinates)	Condition Cate	33,6	32,2
SUBPARCEL	NUMBER AND LABEL <sup>*</sup>	Environmental	2.7(4)	3.1(4)

.

TABLE 3-6 SUBPARCEL DESCRIPTIONS

.

9 of 102

January 2007

,

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and Use Restrictions in January 2005.
BASIS <sup>6</sup>	This subparcel is associated with Building 195. There has been no documented release or disposal of hazardous substances or petroleurn products; nor has there been migration from an adjacent property of hazardous substances or petroleurn products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD called for remedial action in the form of LUCs to maintain a boundary fence around Parcel 3, to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Atthough EPA concurred via letter dated March 13, 1997, with the CERFA tetter report that designated this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. On September 29, 2005, DA signed the Letter of Assignment transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis Youth Ministries. This property has been transferred from DLA to DA.	This subparcel is associated with Building 196. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for resceting BCT screening criteria that did not present unacceptable risk for rescetutial reuse, but did present unacceptable risk for rescetutial reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD called for remedial action in the form of LUCs to maintain a boundary fence around Parcel 3, to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A signed the Letter of Assignment transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministries. This property has been transferred from DLA to DA.
FACILITY	Building 195	Building 196
APPROXIMATE SIZE <sup>b</sup> (acres)	0.10	0.02
LOCATION (x, y coordinates)	31.2	31.2
SUBPARCEL NUMBER AND LABEL	3.2(4)	3.3(4)

883 111

10 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

r		·
REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP LUCs implemented via LUCIP LUCs implemented via LUCIP submission of MI Notice of Land Use Restrictions in January 2005.
BASIS <sup>6</sup>	This subparcel is associated with Building 198. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCIA remedy includes LUCs. The MI ROD called for remedial action in the form of LUCs to maintain a boundary fence around Parcel 3, to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel calegory 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. On September 29, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministries. This property has been transferred from DLA to DA	This subparcel is associated with Buldings 188, 189, 192, 194, 197 and 398, open land area surrounding these buildings, the golf course, the baseball field and the playground area. This subparcel contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for recreational or industrial reuse, but did present unacceptable risks for recreational or industrial reuse, but did not present unacceptable risks for recreational or industrial reuse, but did present unacceptable risks for recreational or industrial reuse, but did not present unacceptable risks for careational or industrial reuse. Use VOC levels: therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. Site 73 is located throughout the MI and this subparcel is in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to maintain a boundary fence around Parcel 3; is operations reuse. In 2003, the BCT concurred that this subparcel for daycare of furthis subparcel was signed in July 2004. On September 29, 2005, DA signed the Letter of Assignment transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministnes. This property has been transferred from DLA to DA.
FACILITY	Building 198	Recreational area including the golf course, playground, softball field, volleyball and tennis courts, wading pool, Buildings 194, 197 and 398, 197 and 398, and open land area surrounding the community club complex the community club complex Road Site 73 (2,4 dichlorophenoxy areas)
APPROXIMATE SIZE <sup>b</sup> (acres)	0.0	32.17 (based on the survey performed for the transfer the area is 41.46 acres)
LOCATION (x, y coordinates)	31,2	29,4
SUBPARCEL NUMBER AND LABEL <sup>a</sup>	3.4(4)	3.5(4)

883 112

11 of 102

January 2007

UBPARCEL JMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
(4)	26,6	τ. Έ	Site 26 (Lake Danielson)	This subparcel is associated with Lake Danielson (Site 26), which is located in the northwest corner of the Golf Course and receives stomwater runoff from the central portion of the MI. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for recreational or industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. Site 26 in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to maintain a boundary fence around Parcel 3, to prevent use of fluvial aquifer groundwater tand to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 4 based on implementation of the LUCS A FOST for this subparcel was signed in July 2004. On September 29, 2005, DA signed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministnes. This property has been transferred from DLA to DA.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
(4)	26,4	0.30	Site 51 (AOC B/Lake Danielson Outlet Ditch)	This subparcel is associated with the Lake Danielson outlet ditch (Site 51) that receives stormwater flow from surrounding areas and intermittent flow from the lake. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for recreational or industrial reuse, but did present unacceptable risks for recreational or industrial reuse, but did present unacceptable risks for recreational or industrial reuse, but did present unacceptable risks for recreational or enerodial action to reduce VOC levels, therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater eampling data indicated the groundwater remedial action would not be implemented at this subparcel. Site 51 is in the area of the MI for which the furvial aquiter groundwater around Parcel 3, to prevent use of fluvial aquiter groundwater and to prevent residential or daycare operations teuse. In 2003, the BCT concurred that this subparcel change from Category 6 to category 4 based on implementation of the LUCs A FOST for this subparcel assignment transferring 46. 7.4 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministnes. This property has been transferred from DLA to DA.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005

12 of 102

,

January 2007

f

ľ

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
BASIS <sup>¢</sup>	This subparcel is associated with the Golf Course Pond (Site 25) that receives surface water runoff from the golf course and southeast portion of the MI. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for recreational or industrial reuse, but did present unacceptable risk for residential reuse. Site 25 is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to maintain a boundary fence around or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. On September 29, 2005, DA signed the Letter of Assignment transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministnes. This property has been transferred from DLA to DA.	Golf Course Pond outlet ditch (Site 52) receives stormwater flow from surrounding areas and intermittent flow from the pond. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for recreational or industral reuse, but did present unacceptable risk for residential reuse. Site 51 is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to maintain a boundary fence around Parcel 3, to present unse of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. DA signed the Letter of Assignment transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministries. This property has been transferred from DLA to DA.	A 1947 installation map shows a pistol range directly behind where Building 271 now stands, near the 9th hole of the golf course. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for recreational or industrial reuse, but did present unacceptable risk for recreational or industrial reuse, but did present unacceptable risk for recreational or industrial reuse, but did present unacceptable risk for recreational or industrial reuse, but did present unacceptable risk for recreational or industrial reuse, but did present unacceptable risk for residential reuse. Site 73 is located throughout the MI and this subparcel is in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to mincludes LUCs. The MI ROD calls for remedial action in the form of LUCs to includes LUCs. The MI ROD calls for remedial action in the form of LUCs to mincludes LUCs. The MI ROD calls for the selected A form of LUCs to includes LUCs. The MI ROD calls for the selected to the City 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. On September 29, 2005, DA signed the Lucs. This subparcel was signed in July 2004. On September 29, 2005, DA signed the Lucs. This property has been transferring 46.74 acres to DOI/NPS, which will deed the property in 2006 to the City of Memphis to be used by Memphis Youth Ministries. This property has been transferring transferred from DLA to DA.
FACILITY	Site 25 (Golf Course Pond)	Site 52 (AOC C/Golf Course Pond Outlet Ditch)	Former pistol range near Hole 9 Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)
APPROXIMATE SIZE <sup>b</sup> (acres)	0.23	0.10	0 25
LOCATION (x, y coordinates)	32,5	30,3	9.0° 8
SUBPARCEL NUMBER AND LABEL	3.8(4)	3.9(4)	3.10(4)

13 of 102

January 2007

ſ

Ì

Ì

Î

.

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP porton of 2004 MI RD and submission of MI Notice of Land Use Restructions in January 2005. This subparcel overties the groundwater treatment area where enhanced broremediation was selected as the CERCLA remedy and EPA does not consider it available for transfer.	UST closure approval from TDEC-UST received in December 1998. Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy and EPA does not consider it available for transfer.
BASIS <sup>c</sup>	This subparcel is associated with Building 271. There has been no documented release or disposal of hazardous substances or petroleum products: nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable nisk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aqtihough EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel for Category 1 to Category 4 based on implementation of the LUCs. Although this building is designated Category 4, it overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy and EPA does not consider it available for transfer.	This subparcel is associated with Buildings 256 and 257 and Site 67 (MOGAS, Building 257). The DRC demolished both buildings in 1999 during construction of the entrance bouevard Building 257 was fumigated in the past. Air sampling human health hazards from fumigation Several spills were reported for this building, including: one 2-galion gasoline spill reported on August 11, 1993, and gasoline release from tank at gasoline ration reported on August 31, 1993. The Spill Team responded, took the appropriate action and disposed of all residues in accordance with federal, state and local regulations In addition, fuel dispensing and storage have been ongoing at Building 257 since 1942 (two 1,000-galion ASTs are located at this building and a 2,580-galion gasoline tank was removed December 1989). Two USTs (18,000 and 22,000 gallons) were removed in 1998 from the open land area south of Bldg. 257. In September 1997, the BCT changed this subparcel to a Category 6 due to the scheduled UST removal project. Upon recept of UST closure approval from TDEC-UST in December 1998, The BCT changed this subparcel to a Category 6 due to the scheduled UST removal project. Upon recept of UST closure approval from TDEC-UST in December 1998, the BCT changed this subparcel from Category 6 to Category 2 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industral reuse, but did present unacceptable risks for industral reuse in 2003. A based on implementation of the LUCs. Although these buildings are designated Category 4, they overlie the groundwater treatment area where enhanced bioremediation severations reuse to consider the angle of transfer Anticipate completing a FOST for this subparcel in 2003.
FACILITY	Building 271	Buildings 256 and 257 Site 67 (MOGAS Building 257)
APPROXIMATE SIZE <sup>b</sup> (acres)	0 03	0.25
LOCATION (x, y coordinates)	31,7	28,10
SUBPARCEL NUMBER AND LABEL*	4.3(4)	4.7(4) Demolished 1999

.

15 of 102

January 2007

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

Ì

1

Í

		ed ed
ATION/ TTION	ctive 01, other the action requir ed via LUCti Al RD and Notice of Le in January	ctive 01, other tha action require
REMEDI	MI ROD effec ember 6, 200 s no further a s implements on of 2004 M nission of MI restrictions	Al ROD effectember 6, 200
	Per N September N Porticional 2005 / Curcon 2005 / Curcon	Septer LUCS
BASIS <sup>c</sup>	This subparcel is associated with the open land area surrounding Buildings 349, 350 and 250. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000 This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000 This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening critera that did not present unacceptable risks for reacceptable reuse, but did present unacceptable risks for residential reuse. Siles 70, 71 and 73 are located throughout the MI and this subparcel is in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare of a fluvial aquifer groundwater and to prevent residential or daycare of gravent uses igned in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with Building 250 and may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. Staining due to acid leaks from batteries in the forklift area was observed during the EBS visual inspection. After the December a or DCT Accesson to change functions to Category 1 the BCT
FACILITY	Open land area surrounding Buildings 250, 349 and 350 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichtorophenoxy acetic acid, all grassed areas)	Building 250
APPROXIMATE SIZE <sup>b</sup> (acres)	4 4	2.8
LOCATION (x, y coordinates)	28,11	29,11
SUBPARCEL NUMBER AND LABEL*	6.1(4)	5.2(4)

Î

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
6.3(4)	27,12	ω ω	Building 349	This subparcel is associated with Building 349, which may have been fumigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy indudes LUCs The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or adocare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERF letter report that designated this subparcel from Category 1, the BCT concurred in 2002 to change this subparcel from Category 1, the BCT concurred in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
6 4(4)	26,11	2.8	Building 350	This subparcel is associated with Building 350, which may have been fumigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation. Staining due to acid leaks from batteries in the forklift area was observed during the EBS visual inspection. After the December 1997 BCT decision to change fumigated buildings to Category 1, the BCT conferred and concurred via telephone calls that this subparcel would become a conferred and concurred via telephone calls that this subparcel would become a conferred and concurred via telephone calls that this subparcel would become a conferred and concurred via telephone calls that this subparcel would become a concurred to change this subparcel from Category 7 to Category 3 believing no remedial action was required. The MI RI Report indicated levels of several concurred to change this subparcel from Category 7 to Category 3 believing no remedial action was required. The MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent uracceptable risks for industral reuse, but did present unacceptable risks for residential reuse. LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of feuse. In Z002, the BCT concurred to change this subparcel from Category 3 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006 This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

17 of 102

sUB
-----

Î

S

Ĵ

This subparcel contains railroad tracks (Sites 70 and 71) and iistorically sprayed with pesticides, herbicides and waste oil or the railroad tracks and ballasts were removed in 1999/2000. The task Evaluation identified this subparcel for potential removal action a bactory 7 to Category 6. The MI RI Report indicated levels of category 7 to Category 6. The MI RI Report indicated levels of category 7 to Category 6. The MI RI Report indicated levels of category 7 to category 6. The MI RI Report indicated levels of category 7 to category 6. The MI RI Report indicated levels of category 7 to removal action occurred Sites 70 and 71 are loc herefore, no removal action occurred Sites 70 and 71 are loc herefore, no removal action occurred Sites 70 and 71 are loc herefore, no removal action occurred Sites 70 and 71 are loc herefore, no removal action occurred Sites 70 and 71 are loc herefore, no removal action occurred Sites 70 and 71 are loc herefore, no removal action occurred Sites 70 and 71 are loc herefore, no removal action of the subparcel was signed in July 2004. DA executed the de or this subparcel was signed in July 2004. DA executed the de or this subparcel is associated with Building 249 that was former his subparcel is associated with Building 249 that was former torage facility for clothing treated with impregnite (Site 65 - X) themical used as a preventive to the effects of chemical warfa	<ul> <li>This subparcel contains railroad tracks (Sites 70 and 71) and surrounding building 249</li> <li>Building 249</li> <li>This subparcel contains railroad tracks and waste oil consurt of POL.</li> <li>Risk Evaluation identified this subparcel for potential removal action a Tailroad tracks.</li> <li>Chemical Leaks, Category 7 to Category 6. The MI RI Report indicated levels of constituents exceeding BCT scorening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for remedial action i realiroad tracks</li> <li>Site 71</li> <li>(Herbicides, all rends)</li> <li>(Herbicides, all remedy includes LUCs. The MI ROD calls for remedial action i the realiroad tracks</li> <li>(Derevent use of fluvial aquifer groundwater and to prevent reador industrial reuse, the subparcel was signed in July 2004. DA executed the drint form is subparcel is associated with Building 249 that was former</li> </ul>	<ul> <li>This subparcel contains railroad tracks (Sites 70 and 71) and historically sprayed with pesticides, herbicides and waste oil containes are removed in 1999/2000. The railroad tracks and ballasts were removed in 1999/2000. The railroad tracks and ballasts were removed in 1999/2000. The railroad tracks and ballasts were removed in 1999/2000. The BCT identified the subparcel or potential removal action a chaines track to category 7 to Category 6. The MI RI Report indicated levels of calload tracks constituents exceeding BCT score and waste oil or scalar and the subparcel as exceeding BCT score in 1999/2000. The BCT identified the subparcel for potential removal action a craitroad tracks constituents exceeding BCT score in RI Report indicated levels of trainoad tracks in the BCT identified the subparcel is in the area of the MI for which the railroad tracks) is prevent use of fluvial aquifer groundwater and to prevent residences. In 2002, the BCT concurred to chan from Category 6 to Category 6 to Category 4 based on implementation of the for this subparcel was signed in July 2004. DA executed the dayna in 2006. This property has been transferred.</li> </ul>
his subparcel is associated with Building 249 that was fo torage facility for clothing treated with impregnite (Site 65 themical used as a preventive to the effects of chemical v	Building 249 This subparcel is associated with Building 249 that was fo	
A battery acid spill was reported on April 15, 1993, at B the Spill Team responded, applied sodium bicarbonate residues in accordance with federal, state and local reg any have been fumigated. Air sampling conducted dur fiftor indicated no human health hazards from furnigativ g97 BCT decision to change furnigated buildings to C antierred and concurred that this subparcel would becc on the cleanup of the battery acid. In June 1998, the BC hange this subparcel from Category 7 to Category 4 b emedial action was required. The MI RI Report indicat isks for industrial reuse, but did present unacceptable isks for industrial reuse, but did present unacceptable iste 55 and costed in the act of the MI for which the selected CET ocated in the act of the MI for which the selected	Site 65 (XXCC3) storage raciny for coming treared with impregnite (site A battery acid spill was reported on April 15, 1993, at B The Spill Team responded, applied sodium bicarbonate residues in accordance with federal, state and local reg may have been fumigated. Air sampling conducted dur effort indicated no human health hazards from funigati 1997 BCT decision to change fumigated buildings to C conferred and concurred that this subparcel would bect on the cleanup of the battery acid. In June 1998, the 88 change this subparcel from Category 7 to Category 4 b remedial action was required. The MI RI Report indicat constituents exceeding BCT screening criteria that did risks for industrial reuse, but did present unacceptable Site 65 requires no active remedial action in the form fluvial aquifer groundwater and to prevent residential o reuse. In 2002, the BCT concurred that this subparcel based on implementation of the LUCs. A FOST for this July 2004. DA executed the deed to DRC in April 2006.	2.8 Building 249 This subparcel is associated with Building 249 that was solved by the clothing treated with impregnite (Site 65 (XXCC3) chemical used as a preventive to the effects of chemica state 5 (XCC3) chemical used as a preventive to the effects of chemica A battery acid spill was reported on April 15, 1993, at B The Spill Team responded, applied sodium bicarbonate residues in accordance with federal, state and local reg may have been fumigated. Air sampling conducted during from findinated no human health hazards from fumigating to C conferred and concurred that this subparcel would beco on the cleanup of the battery acid. In June 1998, the B change this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange this subparcel from Category 7 to Category 4 b crange the area of the MI ROD calls for remedial action in the form fluvial aquifer groundwater and to prevent residential of created in the area of the MI ROD calls for remedial action in the form fluvial aquifer groundwater and to prevent residential of created in the area of the MI ROD calls for remedial action in the form fluvial aquifer groundwater and to prevent residential of created in the area of the MI ROD calls for remedial action in the form fluvial aquifer groundwater and to prevent residential of crea
	Site 65 (XXCC3)	2.8 Building 249 Site 65 (XXCC3)

18 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

Į

SUBPARCEL NUMBER AND LABEL <sup>®</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
8.1(4)	28,14	6.4	Open land area surrounding Buildings 229, 230, 329 and 330 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	This subparcel is associated with the open land area surrounding Buildings 229, 230, 329 and 330. This subparcel contains railroad tracks (Sites 70 and 71) that were historically sprayed with pesticides, herbicides, and waste oil containing PCP and grassed areas (Site 73) that were historically sprayed with herbicides and pesticides. The railroad tracks and ballasts were removed in 1999/2000. The MI RI person undecaded levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for residential reuse. The report also inducated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel is located in the area of the MI for which the selected CECLA remedy includes LUCs. The MI for which the selected CECLA remedy includes LUCs. The MI groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been fransferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005
8.2(4)	29,15	2.8	Building 229	This subparcel is associated with Building 229, which may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated October 20, 1998, with the CEFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1, was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 120

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

.

19 of 102

Î

\$

SUBPARCEL NUMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
8.3(4)	29,14	2.8	Building 230	This subparcel is associated with Bulding 230, which may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI RD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1, the BCT concurred in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
8.4(4)		2.8	Building 329	This subparcel is associated with Building 329, which may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. Atthough EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 6 based on potential for groundwater remedial action at this subparcel. Subsequent groundwater sampling data indicated groundwater free action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005

883 121

20 of 102

January 2007

Ĵ

SUBPARCEL NUMBER AND LABEL <sup>1</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
8.5(4)	26,13	8	Building 330	This subparcel is associated with Building 330, which may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI Rt Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI RDD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred this subparcel form Category 1, the BCT concurred in 2002 to change this subparcel from Category 1, the BCT concurred in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
9 1(4)	23,13	6.3	Open land area surrounding Buildings 429, 430, 449 and 450 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	This subparcel is associated with the open land area surrounding Buildings 429, 430, 449 and 450. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industral reuse, but did present unacceptable risks for residential reuse. The medicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action nould not be implemented at this subparcel. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in PGO calls for rendetal action in the area of the MI for concurred in 2002 to change this subparcel is located in the area of the MI for concurred in zoro to be implemented at this subparcel. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in the area of the MI for the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

.

21 of 102

Î

SUBPARCEL NUMBER AND LABEL <sup>1</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
9.2(4)	23,15	89	Building 429	This subparcel is associated with Building 429, which may have been fumigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigaton. In December 1997, the BCT concurred to change this subparcel to Category 1. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 6 based on potential for groundwater remedial action at this subparcel. Subsequent groundwater sampling data indicated groundwater remedial action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 4 based on implementation of the LUCs A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
9.3(4)	23,13	2.8	Building 430	This subparcel is associated with Building 430 and may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation Staining due to acid leaks from batteries in the forklift area was observed during the EBS visual inspection. After the December 1997 BCT decision to change furnigated buildings to Category 1, the BCT concurred to change furnigated buildings to Category 1, the BCT concurred to change this subparcel to Category 3 based on the cleanup of battery acid. In June 1998, the BCT again concurred to change this subparcel from Category 7 to Category 3 baleving no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT concurred to retrain that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 3 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCS The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquife groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

22 of 102

January 2007

Ĵ

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SiZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
9.4(4)	23,12	2.8	Building 449	This subparcel is associated with Building 449, which may have been fumigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated October 20, 1998, with the CEFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1, was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
9.5(4)	23,11	2.8	Building 450	This subparcel is associated with Building 450, which may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designed this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 6 based on potential for groundwater remedial action at this subparcel subparcel change from Category 6 based on implementation of the LUCs. A FOST for this subparcel in 2003, the BCT concurred that this subparcel change from Category 4 based on implementation of the LUCs. A FOST for this property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

.

883 124

23 of 102

January 2007

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

was reported on August 11, 1995, inside Building 649, Section 5. T Team responded, applied absorbent and disposed of all residues in with federal, state and local regulations. The 1996 Final Environme Survey determined this subparcel to be Category 3 and the BCT co based on the cleanup of the spills and believing no further remedia required. The MI RI Report indicated levels of several constituents is BCT screening criteria that did not present unacceptable risks for ti- reuse, but did present unacceptable risks for residential reuse. The indicated that groundwater beneath this subparcel may require rem to reduce VOC levels; threefore, the BCT concurred in 2002 to cha subparcel from Category 3 to Category 6. Subsequent groundwatei data indicated the groundwater remedial action would not be implei this subparcel. This subparcel is in the area of the MI for which the remedy includes LUCs The MI ROD calls for remedial action in the to prevent use of fluvial aquifer groundwater and to prevent residen daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that this sub- daycare operations reuse. In 2003, the BCT concurred that the reading of this subparcel was signed in July 2004. DA executed the in April 2006. This property has been transferred.	was reported on August 11, 1995, inside Building 649, Section 5. T Team responded, applied absorbent and disposed of all residues is with federal, state and local regulations. The 1996 Final Environme Survey determined this subparcel to be Category 3 and the BCT co based on the cleanup of the spills and believing no further remedia required. The MI RI Report indicated levels of several constituents BCT screening criteria that did not present unacceptable risks for residential reuse. The indicated that groundwater beneath this subparcel may require rem to reduce VOC levels; therefore, the BCT concurred in 2002 to cha subparcel from Category 3 to Category 6. Subsequent groundwater data indicated the groundwater remedial action would not be implei this subparcel. UCS The MI ROD calls for remedial action in the to prevent use of fluvial aquifer groundwater and to prevent residen daycare operations reuse. In 2003, the BCT concurred that this sub change from Category 6 to Category 4 based on implementation of FOST for this subparcel was signed in July 2004 DA executed the	was reported on August 11, 1995, inside Building 649, Section 5. T Team responded, appled absorbent and disposed of all residues in with federal, state and local regulations. The 1996 Final Environme Survey determined this subparcel to be Category 3 and the BCT oc based on the deanup of the spills and believing no further remedia required. The MI R Report indicated levels of several constituents BCT screening criteria that did not present unacceptable risks for ri- reuse, but did present unacceptable risks for residential reuse. The indicated that groundwater beneath this subparcel may require rem to reduce VOC levels; therefore, the BCT concurred in 2002 to cha subparcel from Category 3 to Category 6. Subsequent groundwate data indicated the groundwater remedial action would not be implei this subparcel. This subparcel is in the area of the MI for which the remedy includes LUCs. The MI ROD calls for remedial action in the to prevent use of fluvial aquifer groundwater and to prevent residen daycare operators reuse. IN a 2003, the BCT concurred that this sub- channe from Category 6 to Category 6 concurred that this sub- channe from Category 6 to Category 6 boroundwater and to prevent residen daycare operators reuse. IN a 2003, the BCT concurred that this sub- channe from Category 6 to Category 6 boroundwater and to prevent residen daycare operators reuse. IN a 2003, the BCT concurred that this sub-	was reported on August 11, 1995, inside Building 649, Section 5. T Team responded, appled absorbent and disposed of all residues in with federal, state and local regulations. The 1996 Final Environme Survey determined this subparcel to be Category 3 and the BCT oc based on the cleanup of the spills and believing no further remedia required. The MI R Report indicated levels of several constituents BCT screening criteria that did not present unacceptable risks for residential reuse. The indicated that groundwater beneath this subparcel may require rem to recue (from Category 3 to Category 6. Subsequent groundwater data indicated the groundwater remedial action would not be implei this subparcel. This subparcel is in the area of the MI for which the
	In April 2000 Interpreted nas been transferred.	FOST for this subparcel was signed in July 2004 DA in April 2006 This property has been transferred.	remedy includes LUCs The MI ROD calls for remed to prevent use of fluvial aquifer groundwater and to r daycare operations reuse. In 2003, the BCT concurr change from Category 6 to Category 4 based on imp FOST for this subparcel was signed in July 2004 DA in April 2006 This property has been transferred.
This subparcel is associated with the oper 649, 550 and 650 and contains railroad tr areas that were historically sprayed with p containing PCP. The railroad tracks and b This subparcel also contains grassed are sprayed with pesticides and herbicides. The several constituents exceeding BCT scree unacceptable risks for industrial reuse, bu residential reuse. The report also indicate subparcel may require remedial action to concurred in 2002 to change this subparc Subsequent groundwater sampling data i action would not be implemented at this subparc subcont residential or daycare oper and to prevent residential or daycare oper concurred that this subparcel from to concurred that this subparce oper	Open land area surrounding Buildings 549, 550 and 650 and contains railroad tr Buildings 549, 550 and 650 and contains railroad tr 550, 649 and 650 550, 649 and 650 550, 649 and 650 71his subparcel also contains grassed area rounding PCP. The railroad tracks and b This subparcel also contains grassed area surrounding PCP. The railroad tracks and various Various Various Chemical Leaks, various Chemical Leaks, various trailroad tracks subparcel may require remedial action to 1,2,3,4,5 and 6) concurred in 2002 to change this subparc file 71 (Herbicides, all concurred in 2002 to change this subparc subparcel may require remedial action to concurred in 2002 to change this subparc file 71 (Herbicides, all concurred that this subparce oper acetic acid, all concurred that this subparce oper	<ul> <li>8.7 Open land area This subparcel is associated with the open surrounding surrounding E49, 550 and 650 and contains railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 7his subparcel area contains grassed area sprayed with pesticides. The several constituents exceeding BCT screever unacceptable risks for industrial reuse, but realitoad tracks subparcel may require remedial action to 1,2,3,4,5 and 6) concurred in 2002 to change this subparce subparcel may require remedial action to concurred in 2002 to change this subparce subparcel may require termedial action to concurred in 2002 to change this subparce subparcel may require remedial action to concurred in 2002 to change this subparce subparcel may require termedial action to concurred in 2002 to change this subparce subparcel may require termedial action to concurred in 2002 to change this subparce subparce dictodes, all action would not be implemented at this subparce subparce dictodes, all action in the form LUCs to preveded to prevent residential or daycare open acetic acid, all concurred that this subparcel change from concurred that this subparce change from conclusion in the form LUCs to preveded to prevent concurred that this subparce change from concurred that this subparce open acetic acid, all concurred that this subparce change from concurred that this subparce open acetic acid.</li> </ul>	18,11       8.7       Open land area surrounding surrounding surrounding surrounding surrounding buildings 549, 550 and 650 and contains railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 550, 649 and containing PCP. The railroad tracks and b 7his subparcel area contains grassed area sprayed with pesticides and herbicides. The subparcel area contains grassed area variables for POL.         Site 70 (POL, Various       Site 70 (POL, various         Various       Unacceptable risks for industrial reuse, bu residential reuse. The report also indicate unacceptable risks for industrial reuse, bu residential reuse. The report also indicate subparcel may require remedial action to concurred in 2002 to change this subparce subparcel may require remedial action to concurred in 2002 to change this subparce subparcel action to action would not be implemented at this subparce subparcel action to reacted the subparce subparce subparcel action to action would not be implemented at this subparce dichlorophenoxy         Site 73 (2,4, and 6)       Site 71       Site 71       Subsequent groundwater sampling data i action to action would not be implemented at this subparce oper action such action in the form LUCs to preverd action concurred that this subparce oper action action action action in the solected cERCLA remedy inclusion action in the form LUCs to preverd action concurred that this subparcel change from action in the form LUCs to preverd action actic action actic action action actic action action actic a
	surrounding Buildings 549, 550, 649 and 650 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	surrounding Buildings 549, 550, 649 and 650 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	surrounding Buildings 549, 550, 649 and 650 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy accetic acid, all grassed areas)

883 125

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

January 2007

24 of 102

ł

Í

BPARCEL MBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>£</sup>	REMEDIATION/ MITIGATION
	17,10	0.25	Spill location between the southern corners of Buildings 550 and 650	This subparcel is associated with a spill location between the southern corners of Buildings 550 and 650. A battery acid and hydraulic fluid spill was reported on March 18, 1993. The Spill Team responded, applied sodium bicarbonate and absorbent and disposed of all residues in accordance with federal, state and local regulations. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable nsks for industrial reuse, but did present unacceptable risks for subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
	20,12	2.8	Building 549	This subparcel is associated with Building 549, which may have been fumigated. Also, the west side of the building contains a fumigation chamber. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquife groundwater and to prevent residential or daycare. Although EPA concurred this subparcel form Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been irransferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 126

25 of 102

January 2007

I

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

TA UBPARCE
---------------

SUBPARCEL NUMBER AND	LOCATION (x, y	APPROXIMATE SIZE <sup>b</sup>			REMEDIATION
LABEL <sup>*</sup>	coordinates)	(acres)	FACILITY	BASIS <sup>c</sup>	MITIGATION
11.1(4)	18,14	Q.	Open land area surrounding Buildings 529, 530 and 630 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, alf railroad tracks) Site 73 (2,4 dichlorophenoxy grassed areas)	This subparcel is associated with the open land area surrounding Buildings 529, P 530 and 630. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicades and waste U oil containing PCP The railroad tracks and ballasts were removed in 1999/2000. UThis subparcel also contains grassed areas (Site 73) that were historically postrayed with pesticides. The MI RI Report indicated levels of sprayed with pesticides and herbicides. The MI RI Report indicated levels of stranspred with pesticides and herbicides. The MI RI Report indicated levels of stranspred with pesticides and herbicides. The MI RI Report indicated levels of stranspred with pesticides and herbicides. The MI RI Report indicated levels of stranspred with pesticides and herbicides. The MI RI Report indicated levels of stranspred with pesticides and herbicides. The MI RI Report indicated levels of stranspredential reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this concurred may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6 Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent this subparcel is located in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for the medial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT optimentation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been	Per MI ROD effective Petember 6, 2001, other than UCs no further action required. UCs implemented via LUCIP ortion of 2004 MI RD and ubmission of MI Notice of Land lise Restrictions in January 005.

883 128

27 of 102

.

January 2007

.

submission of MI Notice of Land LUCs no further action required submission of MI Notice of Land LUCs no further action required. September 6, 2001, other than September 6, 2001, other than LUCs implemented via LUCIP LUCs implemented via LUCIP Use Restrictions in January portion of 2004 MI RD and Use Restrictions in January portion of 2004 MI RD and **REMEDIATION/** MITIGATION Per MI ROD effective Per MI ROD effective 2005. 2005. This subparcel is associated with Building 529, which may have been fumigated. to Category 3 based on the cleanup of battery acid and firefighting foam. In June indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable This subparcel is associated with Building 530, which may have been fumigated. BCT concurred in 2002 to change this subparcel from Category 3 to Category 6. Staining due to acid leaks from batteries in the forklift area was observed during chemicals were stored in the west end of the building. Records indicate several risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the action would not be implemented at this subparcel. This subparcel is in the area implementation of the LUCs. A FOST for this subparcel was signed in July 2004. remedial action would not be implemented at this subparcel. This subparcel is in Category 3 believing no further remedial action was required. The MI RI Report Category 1, the BCT concurred in 2002 to change this subparcel from Category based on implementation of the LUCs A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been disposed of all residues in accordance with federal, state and tocal regulations. fumigated buildings to Category 1, the BCT concurred to change this subparce! health hazards from furnigation Antifreeze, firefighting foam and photographic concurred that this subparcel change from Category 6 to Category 4 based on of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater change this subparcel to Category 1. Although EPA concurred via letter dated the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD the EBS visual inspection. After the December 1997 BCT decision to change Air sampling conducted during the BRAC sampling effort indicated no human 1998, the BCT again concurred to change this subparcel from Category 7 to Air sampling conducted during the BRAC sampling effort indicated no human the BCT concurred that this subparcel change from Category 6 to Category 4 spills of firefighting foam. The Spill Team responded, applied absorbent and groundwater and to prevent residential or daycare operations reuse. In 2003, Subsequent groundwater sampling data indicated the groundwater remedial March 13, 1997, with the CERFA letter report that designated this subparcel calls for remedial action in the form of LUCs to prevent use of fluvial aquifer health hazards from furnigation. In December 1997, the BCT concurred to subparcel. Subsequent groundwater sampling data indicated groundwater 1 to Category 6 based on potential for groundwater remedial action at this and to prevent residential or daycare operations reuse. In 2003, the BCT DA executed the deed to DRC in April 2006. This property has been BASIS<sup>°</sup> transferred. transferred. Building 529 Building 530 FACILITY **APPROXIMATE** SIZE (acres) 2.8 2.8 coordinates) LOCATION 19,15 (x, y 20,14 NUMBER AND SUBPARCEL LABEL<sup>\*</sup> 11.2(4) 11 3(4)

I

Î

SUBPARCEL NUMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SiZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>E</sup>	REMEDIATION/ MITIGATION
11.4(4)	16,13	2.8	Building 630	This subparcel is associated with Building 630, which may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 6 based on potential for groundwater remedial action at this subparcel. Subsequent groundwater sampling data indicated groundwater remedial action would not be implemented at this subparcel This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to prevent use of fluvial aquifer groundwater and to prevent testlentual or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
12.1(4)	17,15	1.7	Open land area surrounding Building 629 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dicthorophenoxy acetic acid, all grassed areas)	This subparcel is associated with the open land area surrounding Building 629. This subparcel contains railroad tracks (Sites 7D and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable insiss for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in the area of the MI for which the selected form LUCs The prevent use of fluxial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 130

29 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

Ï

SUBPARCEL NUMBER AND LABEL <sup>®</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
12.2(4)	16,15	2.8	Building 629 Site 57 (AOC H/Building 629 Spill Area)	This subparcel is associated with Building 629, formerly a hazardous maternals storage building (DDT, herbiodes, solvenis, oxidizers, and toxic/corrosive maternals) and Site 57 (AOC H/Building 629 Spill Area). A 6-galion nitric acid spill was reported on April 23, 1990, inside Building 629, Section 1. The Spill Team responded, applied sodium bicarbonate and disposed of all residues in accordance with federal, state and local regulations. This building may have been thringated. Air sampling conducted during the BRAC sampling effort accordance with federal, state and local regulations. This building may have been thringated on human health hazards from furnigation. After the December 1997 BCT decision to change this subparcel to Category 4 based on the cleanup of the nitric acid to change this subparcel to Category 4 based on the cleanup of the nitric acid spill. In January 1998, the BCT again concurred to change subparcel from Category 7 to Category 4 based on the cleanup of the nitric acid spill. In January 1998, the BCT again concurred to change subparcel from Category 7 to Category 4 based on the cleanup of the nitric acid spill. In January 1998, the BCT again concurred to change subparcel from Category 7 to Category 4 based on the cleanup of the nitric acid spill. In January 1998, the BCT concurred to change this subparcel from Category 4 based to findustrial reuse. The report also indicated the present unacceptable risks for residential reuse The report also indicated the groundwater beneatil this subparcel may require remedial action to reduce VOC fevels, therefore, the BCT concurred in 2002 to change this subparcel from Category 4 to Category 6. Subsequent groundwater sampling data indicated the groundwater beneatil this subparcel action would not be implemented at this subparcel from Category 4 to Category 6. Subsequent groundwater sampling data indicated the groundwater cendeil action would not be implemented at this subparcel from Category 4 to Category 6. Subsequent groundwater sampling data indicated	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of Mi Notice of Land Use Restrictions in January 2005.
13.1(4)	33,16	<0.01	Station/Gate 23	This subparcel is associated with the Sentry Station at Gate 23. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fuvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 131

30 of 102

January 2007

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
13.2(4)	33,16	<0.01	Station/Gate 24	This subparcel is associated with the Sentry Station at Gate 24. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable fisk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
13.3(4)	32,16	<0.0 <del>1</del>	Sentry Station/Gate 25	This subparcel is associated with the Sentry Station at Gate 25. There has been no documented release or disposal of hazardous substances or petroleum products: nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer proundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the concurred in 2002 to change this subparcel from Category 1, the BCT concurred in 2002 to change this subparcel from LUCs. This property has been further the form the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 132

31 of 102

January 2007

I

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SiZE b (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
13.4(4 )	31,17	5.5	Building 210 Site 41 (Satellite Drum Accumulation Area)	This subparcel is associated with Building 210 and Site 41 (Satellife Drum Accumulation Area). The building also contained the base photographer's photo developing lab in Bay 7. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. Site 41 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated October 20, 1998, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
13 5(4)	33,16	6 Ƙ	Building 211 and open land area surrounding Buildings 210 and 211, and Sentry Stations 23 and 25 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic areas)	This subparcel is associated with Building 211 and its associated emergency generator. Gates 23, 24 and 25, and the surrounding open land area extending to Airways Boulevard This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides. The MI RI Report indicated fevels of several constituents exceeding BCT screening criteria that dd not fresent unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 4 based on implementation of the LUCs A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005

883 133

32 of 102

January 2007

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

.

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SiZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
14.1(4)	27,19	<0.01	Station/Gate 22	This subparcel is associated with the Sentry Station at Gate 22. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
14.2(4) Demolished 1998	33,17	10.5	Building 209 and open land area surrounding Building 209 and Sentry Station 22 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	This subparcel is associated with Building 209 (demolished in 1998) and the surrounding open land area extending north to Dunn Road and east to Airways Boulevard. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides in addition, this subparcel is associated with neating oil tank that was located outside of Building 209 but was removed in July of 1994. There has been no documented release associated with this tank, and no evidence was found of disposal or of migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did the the BMI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did the subparcel is located in the area of the MI converted to chenge this subparcel is located in the area of the MI converted to the change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004, DA executed to the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

33 of 102

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

,

883 135

.

34 of 102

January 2007

SUBPARCEL NUMBER AND LABEL <sup>a</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
15.3(4)	26,16	0.41	Building 319	This subparcel is associated with Building 319, a storage facility for various thazardous substances including flammables and forces (covaride) and Site 74	Per Mi ROD effective Sentember 6, 2001, other than
			Site 74	(Flammables, Toxics). Low-level radioactive materials were also stored in the	LUCs no further action required.
			Toxics	western bay of Building 319. Beginning in 1994, the eastern end of Building 319	LUCs implemented via LUCIP
			West End -	was used for nazaroots waste storage by DKMO. In addition, a xytene spill was reported on November 18, 1991, inside Building 319. Section 4, In 1996 an	portion of 2004 MI RU and submission of MI Notice of Land
			Building 319)	inspection of the western bay was conducted as required for closure of the	Use Restrictions in January
				Defense Distribution Center's Nuclear Regulatory Commission permit for storacte of Inw-level radioarctive materials at the Devot The instruction	2005.
				determined that approximately 8 feet of wall space within the western bay	
				required remediation for low-level radioactive impacts. The Depot completed	
				remediation in 1997. Soil samples collected in 1997 indicated chromium and	
				industrial scenarios. The NRC approved the building remediation/permit closure	
				documentation and deleted the Memphis Depot from the DDC's permit Building	
				319 was released for use with no NRC restrictions. In June 1999, the BCT	
				received the NRC permit closure approval documentation and concurred to	
				criange this supparcel from Category / to Category 4 based on the cleanup of both the videne soill and the low-level radioactivity and believing no further	
				remedial action was required. The MI RI Report indicated levels of several	
				constituents exceeding BCT screening criteria that did not present unacceptable	
				risks for industrial reuse, but did present unacceptable risks for residential reuse	
				The report also indicated that groundwater beneath this subparce! may require	
				change this subparcel from Category 4 to Category 6. Subsequent groundwater	
				sampling data indicated the groundwater remedial action would not be	
				implemented at this subparcel. No further active remediation is required for Site	
				74; however, this subparcel is located in the area of the MI for which the	
				selected CENCEA Territedy includes EUCS. The MLKUU carls for remedial action In the form EUCs to prevent use of fluvial antifer provindwater and to prevent	
				residential or daycare operations reuse. In 2003, the BCT concurred that this	
-				subparcel change from Category 6 to Category 4 based on implementation of	
				the LUCs A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred	

35 of 102

.

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

REMEDIATION/ MITIGATION	MI ROD effective tember 6, 2001, other than Ds no further action required. Ds implemented via LUCIP tion of 2004 MI RD and mission of MI Notice of Land Restrictions in January 5.	MI ROD effective tember 6, 2001, other than 2s no further action required 3s implemented via LUCIP ion of 2004 MI RD and mission of MI Notice of Land Restrictions in January 5.
BASIS <sup>6</sup>	This subparcel is associated with Building 702, demolished in 1998. In February Per 1999. The BCT concurred to change this subparcel from Category 7 to Category 1UU was required. The MI RI Report indicated levels of several constituents building was demolished and believing no further remedial action LUC was required. The MI RI Report indicated levels of several constituents but did present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. 2006 The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial 2002, the BCT concurred to change this subparcel from Category 3 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has	This subparcel is associated with a portion of the open gravel storage area Y50 that is west of Buildings 308 and 309. This subparcel is associated with Site 36 (DRMO Hazardous Waste Concrete Storage Pad), Site 37 (DRMO Hazardous Waste Gravel Storage Pad), Site 38 (DRMO Damaged/Empty Lubricant ULUC Waste Gravel Storage Pad), Site 38 (DRMO Damaged/Empty Lubricant bott container Area). This subparcel consists of gravel areas (Site 72) that were built for PRE identified this subparcel for removal action, and the BCT concurred to change this subparcel for removal action, and the BCT concurred to change this subparcel for removal action, and the BCT concurred to change this subparcel for removal action, and the BCT concurred to change this subparcel for removal action, and the BCT concurred to change this subparcel for removal action, and the BCT concurred to change this subparcel for removal action, and the BCT concurred to containing PCP. The RE identified this subparcel for removal action in dicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse; therefore, no removal action indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for indicated levels of several constituents of a the Supparcel action in the form LUCs to prevent use of fluvial action in the form LUCs. The subparcel action in the form LUCs of prevent uses of not actegory for Category 6 to
FACILITY	Building 702	Open land area west of Buildings 308 and 309 Site 36 (DRMO Hazardous Waste Concrete Storage Pad) Site 37 (DRMO Hazardous Waste Gravel Storage Pad) Site 38 (DRMO Damaged/ Empty Hazardous Materials Drum Storage Area) Site 39 (DRMO Damaged/ Empty Lubricant Container Area) Site 72 (Waste Oil, DRMO Yard, surface application for dust control)
APPROXIMATE SIZE <sup>b</sup> (acres)	0.28	e e
LOCATION (x, y coordinates)	14,18	23,18
SUBPARCEL NUMBER AND LABEL <sup>*</sup>	15.4(4) Demolished 1998	15.5(4)

883 137

36 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

submission of MI Notice of Land LUCs no further action required. Per MI ROD effective September 6, 2001, other than LUCs implemented via LUCIP Use Restrictions in January portion of 2004 MI RD and **REMEDIATION** MITIGATION 2005. Report indicated levels of several constituents exceeding BCT screening criteria groundwater beneath this subparcel may require remedial action to reduce VOC Category 7 to Category 6. Subsequent groundwater sampling data indicated the prevent residential or daycare operations reuse. In 2003, the BCT concurred that residues in accordance with federal, state and local regulations. In addition, this This subparcel is associated with open storage areas Y10, Y11, Y50, and Y60; S702); and a 4,000-gallon heating oil tank located outside of Building 319 removed in July 1994. The DRC demolished Buildings T416 and T417 in 2002. subparcel is also associated with a 30-gallon solvent spill south of Building 309 in 1991. The Spill Team responded, took appropriate action and disposed of all groundwater remedial action would not be implemented at this subparcel. Sites control), and Site 79 (Fuels, Miscellaneous Liquids, Wood and Paper – Vicinity 54, 55, 72 and 79 and this subparcel are located in the area of the MI for which this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial sprayed with pesticides, herbicides and waste oil containing PCP. The MI RI levels; therefore, the BCT concurred in 2002 to change this subparcel from action in the form LUCs to prevent use of fluvial aquifer groundwater and to Runoff Canal), Site 72 (Waste Oil, DRMO yard, surface application for dust (DRMO East Stormwater Runoff Canal), Site 55 (DRMO North Stormwater that did not present unacceptable risks for industrial reuse, but did present Buildings 301, 304, 305, 306, 307, 309, T416, T417, 701 and 717, Site 54 subparcel contains railroad tracks and gravel areas that were historically There has been no documented release associated with this tank. This unacceptable risks for residential reuse. The report also indicated that the deed to DRC in April 2006. This property has been transferred. BASIS<sup>c</sup> 304, 305, 306, 307, 309, 416, 417, 701 and Oil, DRMO yard, open land area E/DRMO East F/DRMO North Site 72 (Waste Buildings 301, Runoff Canal) Site 54 (AOC Runoff Canal) application for Miscellaneous Liquids, Wood Site 55 (AOC Site 79 (Fuels, surrounding Vicinity 702); Stormwater Stormwater and Paper dust control) FACILITY 717 and surface APPROXIMATE size <sup>b</sup> (acres) 43.8 coordinates) LOCATION X X 18,17 NUMBER AND SUBPARCEL demolished in 416 and 417 LABEL<sup>\*</sup> 15.6(4) 2002

January 2007

37 of 102

	Land	and and
MEDIATION/ TIGATION	effective b. 2001, other t ther action requ mented via LUC 004 MI RD and of MI Notice of ions in January ions in January	effective s, 2001, other tf her action requ nented via LUC 04 MI RD and of MI Notice of I ons in January
REA	Per MI ROD September 6 LUCs no fur LUCs impler portion of 20 submission of Use Restrict 2005.	Per MI ROD September 6 LUCs no furti LUCs implem portion of 200 submission o Use Restricti 2005.
BASIS <sup>6</sup>	This subparcel is associated with the open land area surrounding Building 559. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI RI Report indicated levels of several with pesticides and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater remedial action to reduce VOC levels; therefore, the BT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater implemented at this subparcel from Category 7 to Category 6. Subsequent groundwater fremedial action of reduce LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquiler groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with Building 559, which may have been furnigated. Air sampling conducted during the BRAC sampling eiffort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI Rt Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable nsks for industrial reuse, but did present unacceptable nisk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated October 20, 1998, with the CERFA letter report that designated this subparcel Category 1, Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.
FACILITY	Open land area surrounding 559 Sile 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	Building 559
APPROXIMATE SIZE <sup>b</sup> (acres)	2.8	5.5
LOCATION (x, y coordinates)	21,9	17,10
SUBPARCEL NUMBER AND LABEL	16.1(4)	16 2(4) Demolished 1999

883 139

38 of 102

January 2007

1

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

/NOI	e other than on required. Via LUCIP ti and tice of Land lanuary	e other than on required. D and tice of Land anuary
	Per MI ROD effectiv September 6, 2001, LUCs no further acti LUCs implemented portion of 2004 MI F submission of MI No Use Restrictions in . 2005.	Per MI ROD effectiv September 6, 2001, LUCs no further acti LUCs implemented portion of 2004 MI R submission of MI No Use Restrictions in J 2005.
BASIS <sup>c</sup>	This subparcel is associated with land area where temporary Building 459 once stood. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 6 based on potential for groundwater remedial action at this subparcel. Subsequent groundwater sampling data indicated groundwater remedial action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with the open land area surrounding Building 359. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. In addition, this subparcel is associated with the following tanks a 12,000-gallon and a 500-gallon fuel oil tank closed in place in July 1994 and September 1995, respectively; a 1,000-gallon fuel oil tank and a 500-gallon dissel tank removed in 1993, a 12,000-gallon and a 500-gallon fuel oil tank removed in 1993. There have been no documented releases associated with these tanks. The MI RI Report indicated levels of several constituents industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated the groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 7 to category 6. Subsequent groundwater remedial andicated the groundwater remedial action would not be implemented at this subparcel in the area of the MI for which the selected indicated this subparcel is located in the area of the MI for which the selected form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs A FOST for this subparcel was signed in July 2004. DA executed the
FACILITY	Land area where temporary Building 459 once stood	Open land area surrounding 359 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)
APPROXIMATE SIZE <sup>b</sup> (acres)	60.0	3.7
LOCATION (x, y coordinates)	22,10 Building relocated to Parcel 30 adjacent to Building 925	22,9
SUBPARCEL NUMBER AND LABEL <sup>1</sup>	17.1(4)	17.2(4)

883 140

39 of 102

January 2007

CEL LOC AND () () () () ()	CATION (x, y dinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
N	52.9	ى بى	Building 359 Site 49 (Medical Waste Storage Area)	This subparcel is associated with Building 359 and Site 49 (Medical Waste Storage Area). The DRC demolished this building in 1999 during construction of the entrance boulevard. This building was used for storage of medical supplies, medical supply waste (expired sheft life medical supplies), medical supplies, medical supply waste (expired sheft life medical supplies), sodium chloride, medical supply waste (expired sheft life medical supplies), sodium chloride, medical supply waste (expired sheft life medical supplies), sodium chloride, and compasses). The 1997 Radiological Survey concluded this building was available for unrestheted use as no evidence of radiological contamination was forund. A sulfurc acid spill was reported on August 27, 1993 inside Building 359, Section 2. The Spill Team responded, applied sodium bicarborate and disposed of all resignes in accordance with federal, state and local regulations. An out of all resulting contramination was also located in this building. This building was fumgated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation After the December 1997 BCT decision to change fumigated buildings to Category 1, the BCT concurred to change this subparcel to Category 4 based on the cleanup of the sulfuric acid. In June 1998, the BCT again concurred to change this subparcel from Category 7 to Category 4 believing no further remedial action was required. The MI RI Report indicated evels of several constituents exceeding BCT screening critera that did not orsent unacceptable risks for industrial reuse, but did present unacceptable risks for resubarcel may require remedial action work subparcel from Category 4. Discondent of the subparcel from Category 6 to Category 6 Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel from Category 4. Discondent du the subparcel from Category 6 to Category 4. BSCT concurred the fire subparcel from Category 4 based on implementati	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

40 of 102

January 2007

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

.

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
18.1(4)HS/HR	17,8	4.0	Building 560	This subparcel is associated with Building 560. Two spills (5 gallons and 15 gallons) of aqueous film forming foam were reported on October 17, 1995 and November 14, 1995 inside Building 560. Section 3. The Spill Team responded, applied absorbent and disposed of all residues in accordance with federal, state and local regulations. The 1996 Final Environmental Baseline Survey determined this subparcel to be a Category 4 and the BCT concurred. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI RI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential to actions reuse. In 2002, the BCT concurred that this subparcel remains Category 4 based on implementation of the LUCs A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
18.2(4)	19,8	5.00	Open land area surrounding Building 560 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks)	This subparcel is associated with the open land area surrounding Building 560 This subparcel contains railroad tracks (Sites 70 and 71) that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. In September 1997, The BCT concurred to change this subparcel from Category 7 to Category 3 believing no further remedial action was required. The MI R Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. Sites 70 and 71 and this subparcel are located throughout the MI for which the selected CERCLA remedy includes LUCs The MI ROD calls for residential reuse. Sites 70 and 71 and this subparcel are located throughout the MI for which the selected CERCLA remedy includes LUCs The MI ROD calls for residential reuse. Sites 70 and 71 and this subparcel are located throughout the MI for which the selected CERCLA remedy includes LUCs The MI ROD calls for residential reuse. Sites 70 and 71 and this subparcel are located throughout the MI for which the selected CERCLA remedy includes LUCs The MI ROD MI for which the selected CERCLA remedy includes LUCs The MI ROD and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 3 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 142

41 of 102

January 2007

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
19.1(4)	21,8	2.8	Buildings 467 (fabric tension structure removed in 1996), 468, and open land area surrounding Buildings 465, 467, 468 and	This subparcel is associated with Building 467 (a fabric tension structure that ber A was removed in 1996), Building 468 and the open land area surrounding Septi Building 465, 468 and 469. Facility maintenance equipment was stored in LUCs building 468. This subparcel contains railroad tracks (Sites 70 and 71) that were LUCs historically sprayed with pesticides, herbicides, and waste oil containing PCP. Submaced tracks and ballasts were removed in 1999/2000. This subparcel Use F historically sprayed with herbicides and pesticides. In February 1998 the BCT submaced tracks area (Site 73) and a small gravel area that were bistorically sprayed with herbicides and pesticides. In February 1998 the BCT conducted a walk-through of the buildings. A 1,000-gallon oil/water separator is	r MI ROD effective ptember 6, 2001, other than Cs no further action required. Cs implemented via LUCIP tion of 2004 MI RD and mission of MI Notrce of Land e Restrictions in January 05.
			469 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbucides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetic acid, all	located in Subparcel 19.1 and is connected to the vehicle wash at Building 465. The separator is connected to the sanitary sewer and was routinely cleaned out. In March 1999, the BCT concurred to change this subparcel from Category 7 to Category 3 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable nexts for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels, therefore, the BCT concurred in 2002 to change this subparcel from Category 3 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial ection would not be implemented at this subparcel. Sites 70, 71 and 73 are located throughout the MI and this subparcel is Sites 70, 71 and 73 are which the selected CERCLA remedy includes LUCs. The MI ROD calls for which the selected action in the form LUCs to prevent use of fluvial action in the form LUCs to remedy action which action in the form LUCs to prevent use of fluvial action to the wite the flux action in the form LUCs to remedy includes LUCs. The MI ROD calls for	
			grassed areas)	and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred	

883 143

42 of 102

January 2007
.

-

1

1

}

 $\langle \gamma \rangle$ 

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
19.2(4)	22.7	0.01	Building 465	This subparcel is associated with Building 465, a vehicle wash rack. Chemical engine cleaners/degreasers may have been used or released in this building. This building contains a floor drain/sump connected to an oil/water separator, which is physically located in Subparcel 19.1. No sampling has been conducted at this subparcel. In February 1999, the BCT conducted a walk through of at this subparcel. In February 1999, the BCT conducted a walk through of the Building 465, determined that the sump had been cleaned upon facility dosure and used since then only to wash grounds keeping equipment. In May 1999, the BCT concurred to change this subparcel from Category 7 to Category 3 belleving no further remedial action was required. The MI RI Report indicated thereis of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated the groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 3 to Category 6. Subsequent groundwater sampling data indicated the groundwater beneath this subparcel may require remedial action to reduce tudes LUCs. The MI RO ralls for remedial action to reduce tudes LUCs. The MI RO ralls for the mate action would not be implemented at this subparcel true of fluvial aquife groundwater action function for the LUCs A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been function.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 144

43 of 102

submission of MI Notice of Land LUCs no further action required. September 6, 2001, other than LUCs implemented via LUCIP Use Restrictions in January portion of 2004 MI RD and **REMEDIATION** MITIGATION Per MI ROD effective 2005. May 1999, the BCT concurred that no further evidence of the spill remained, that MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for satellite drum accumulation area for waste petroleum products and sulfuric acid. Category 4 based on the cleanup of the spill and believing no further action was this subparcel. Sites 40 and 41 and this subparcel are located in the area of the from the absorbent and concrete and results indicated PCB-1242. According to implementation of the LUCs. A FOST for this subparcel was signed in July 2004 the Spill Team Leader on the scene at the time of the spill and during sampling. Approximately 6 ounces of material was spilled on the south wall and floor near contained Safety Kleen unit was used in Building 469. Building 469 was also a indicated that groundwater beneath this subparcel may require remedial action reuse, but did present unacceptable risks for residential reuse. The report also concurred that this subparcel change from Category 6 to Category 4 based on the entrance The sheet rock wall and concrete floor absorbed some of the oil. the effected area was removed during sampling operations. In February 1999, required. The MI RI Report Indicated levels of several constituents exceeding the BCT conducted a walk through and was unable to locate the spill area. In remedial action in the form LUCs to prevent use of fluvial aquifer groundwater repair/charge shop Acids, parts cleaning fluids and petroleum products were subparcel from Category 4 to Category 6. Subsequent groundwater sampling The Spill Team responded, applied absorbent and disposed of the residue in accordance with federal, state and local regulations. Samples were collected data indicated the groundwater remedial action would not be implemented at stored and used in Building 469. This subparcel is associated with Sites 40 to reduce VOC levels; therefore, the BCT concurred in 2002 to change this BCT screening criteria that did not present unacceptable risks for industrial There is no evidence of releases from the units or accumulation area. On (Safety Kleen Units) and 41 (Satellite Drum Accumulation Areas) A selfand to prevent residential or daycare operations reuse. In 2003, the BCT December 16, 1993, a transformer oil spill was reported at Building 469. a remedial action occurred, and to change this subparcel Category 7 to This subparcel is associated with Building 469, which was the battery DA executed the deed to DRC in April 2006 This property has been BASIS transferred. Site 41 (Satellite Site 40 (Safety accumulation Building 469 Kleen Units FACILITY Drum Area) APPROXIMATE SIZE b (acres) 0.22 coordinates) LOCATION (x, y 22,8 SUBPARCEL NUMBER AND LABEL 19.3(4)

	an P d an	and
IATION/ ATION	octive action requi ted via LUCI Mi RD and I Notice of L in January	ictive 01, other thi action requi ed via LUCI Al RD and I Notice of L in January
REMED MITIG	MI ROD effe tember 6, 20 s no further on of 2004 h ritission of M Restrictions 5.	MI ROD effe ember 6, 20 s no further s implement on of 2004 A nission of M rission of M Restrictions 5,
BASIS <sup>c</sup>	This subparcel is associated with a 1-gallon oil spill reported on November 3, 1995, at the north dock of Building 489, Section 4. The Spill Team responded, applied absorbent and disposed of all residues in accordance with federal, statt and local regulations. This subparcel became a Category 2 due to the ECP Category definition change that occurred after the 1996 Environmental Baseline Survey categorized this subparcel became a Category 3 in December 1998, The BC concurred to change this subparcel as a Category 3 in December 1998, The BC concurred to change this subparcel as a Category 2 based on the new ECP definitions and believing no further remedial action was required. The MI RI Report indicated beeks of several constituents exceeding BCT screening criteri that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 2 to Category 6. Subsequent groundwater sampling data indicated that groundwater remedial action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCS The MBCD calls for remedial action which the CERCLA remedy includes LUCS The MBCD calls for remedial action in the form LUCS to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel thange from Category 6 to Category 4 based on implementation of the LUCS. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with Building 670. Significant corrosion was observed during the EBS visual inspection due to acid leaks at the battery charging station. Sodium bicarbonate was applied and disposed in accordance with federal, state and local regulations. A 1-gallon spill of hydraulic fluid was responded, applied absorbent and disposed of all residues in accordance with federal, state and local regulations. The 1996 Final Environmental Baseline Survey determined this subparcel to be a Category 4 and the BCT concurred. The MI R1 Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, bu did present unacceptable risks for residential reuse. This subparcel is in the are of the M for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or dragrate operations reuse. In 2002, the BCT concurred that this subparcel remains Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred
FACILITY	Building 489	Building 670
APPROXIMATE SIZE <sup>b</sup> (acres)	0.46	O G
LOCATION (x, y coordinates)	21,5	17,6
SUBPARCEL NUMBER AND LABEL <sup>1</sup>	20.1(4)PR	20.2(4)HS/HR

Î

2

1

ľ

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and use Restrictions in January 2005.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
BASIS <sup>6</sup>	This subparcel is associated with Building 470. Corrosion was observed during the EBS visual inspection due to acid spills at the battery charging staton. Sodium bicarbonate was applied and disposed in accordance with federal, state and local regulations. The 1996 Final Environmental Baseline Survey determined this subparcel to be Category 4 and the BCT concurred believing no further remedual action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel from Category 4 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or this subparcel change from Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred	This subparcel is associated with Building 489. Corrosion was observed during the EBS visual inspection due to acid spills at the battery charging station. Sodium bicarbonate was applied and disposed in accordance with federal, state and local regulations. The 1996 Final Environmental Baseline Survey determined this subparcel to be a Category 4 and the BCT concurred believing no further remedial action was required. The MI R Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; therefore, the BCT concurred in 2002 to change this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy inclicated the groundwater remedial action would not be implemented at this subparcel. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse in 2003, 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.
FACILITY	Building 470	Building 489
APPROXIMATE SIZE <sup>b</sup> (acres)	5.0	С. У
LOCATION (x, y coordinates)	20.7	21,5
SUBPARCEL NUMBER AND LABEL <sup>*</sup>	20.3(4)HS/HR	20.4(4)HS/HR

.

883 147

Ĵ

ſ

Ĵ

ĺ

SUBPARCEL NUMBER AND LABEL <sup>a</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
20.5(4)	19,6	26.5 (based on the survey performed for the transfer the area is 18.25 acres)	Open land area surrounding Buildings 470, 489 and 670 Site 70 (POL, Vanous Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acetc acid, all grassed areas)	This subparcel is associated with the open land area surrounding Buildings 470, 489 and 670. This subparcel contains railroad track (Sites 70 and 71) and gravel areas that were histoncally sprayed with pesticides, herbicides and waste oil containing PCP and grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI Rt Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. Ucc levels: therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater remedial action to reduce VOC levels: therefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in the area of the MI for which the selected for the subparcel is located in the area of the MI for which the selected form LUCs. The MI ROD calls for remedial action in the residential or daycane operations reuse. In 2003, the BCT concurred that is subparcel change from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the educed the GDT concurred the subparcel was signed in July 2004. The executed the	Per Mi ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
20.6(4)	20.4	0.40	Spill area between western ends of Buildings 489 and 490	This subparcel is associated with a sulfuric acid spill on June 10, 1993, on the south dock of Bay 5, Building 489. The Spill Team responded, took appropriate action and disposed of all residues in accordance with local, state and federal regulations. This subparcel also contains gravel areas that were historically sprayed with waste oil containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for the ROD calls for remedial action in the form LUCS to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. A FOST of this subparcel was signed in July 2004 DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

47 of 102

January 2007

٩

TABLE 3 UBPARCEL DES
-------------------------

Ĩ

Í

Ĵ

Í

Ì

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
21.1(4)	17,3	о	Building 690	This subparcel is associated with Building 690, which was used to temporarily stage hazardous maternals prior to shipment. This subparcel became a Category 1 due to the ECP category definition change that occurred after the 1996 Environmental Baseline Survey categorized this subparcel became a Category 2. At the October 1997 meeting, the BCT concurred to change this subparcel to a Category 1 based on the new ECP definitions. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA residential reuse. This subparcel is in the area of the MI for which the CERCLA is to prevent use of fluvid aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated October 20, 1998, with the CERFA letter report that designated this subparcel category 1, the BCT concurred the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
R .2(4)PS/HS/H	23,3	5.0	Building 490 Site 40 (Safety Kleen Units)	This subparcel is associated with Building 490 and Site 40 (Safety Kleen Units). The Safety Kleen unit was removed prior to closure. Corrosion was observed during the EBS visual inspection due to acid spills at the battery charging station. Sodium bicarbonate was applied and disposed in accordance with federal, state and local regulations. A 1-gallon spill of sulfunc acid/battery acid was reported on December 15, 1995, inside Building 490, Section 5. The Spill Team responded, applied sodium bicarbonate and disposed of alt residues in accordance with federal, state and local regulations. Petroleum products and microfiche developing chemicals were stored and used in Building 490. The 1996 Final Environmental Baseline Survey determined this subparcel to be a Category 4 and the BCT concurred believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for reduced to actome that groundwater beneath this subparcel may require remedial action building the ERCLA reuse, but did present unacceptable risks for residential reuse of indicated the groundwater beneath this subparcel may require remedial action to reduce VOC levels; the BCT concurred in 2002 to change this subparcel from Category 4 to Calegory 6 Subsequent groundwater sampling data indicated the groundwater remedial action will not which the CERCLA remedy includes LUCs. The MI ROD calls for remedual action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 149

January 2007

48 of 102

submission of MI Notice of Land submission of MI Notice of Land LUCs no further action required LUCs no further action required LUCs implemented via LUCIP September 6, 2001, other than Per MI ROD effective September 6, 2001, other than LUCs implemented via LUCIP Use Restrictions in January Use Restrictions in January portion of 2004 MI RD and portion of 2004 MI RD and **REMEDIATION** MITIGATION Per MI ROD effective 2005. 2005. determined this subparcel to be a Category 4 and the BCT concurred. The MI RI subparcel may require remedial action to reduce VOC levels; therefore, the BCT action would not be implemented at this subparcel. This subparcel is in the area implementation of the LUCs. A FOST for this subparcel was signed in July 2004. the EBS visual inspection due to acid spiils at the battery charging station. Sodium bicarbonate was applied and disposed in accordance with federal, state Report indicated levels of several constituents exceeding BCT screening criteria Building 689 historically staged alcohol, acetone, toluene, and hydrofluoric acid This subparcel is associated with Building 685. Corrosion was observed during determined this subparcel to be a Category 4 and the BCT concurred believing prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation disposed of all residues in accordance with federal, state and local regulations Samples were collected from the concrete parking lot immediately adjacent to of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater concurred that this subparcel change from Category 6 to Category 4 based on unacceptable nsks for residential reuse. This subparcel is in the area of the MI of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial before transport The Safety Kleen unit was removed prior to closure. Eleven no further remedial action was required. The MI RI Report indicated levels of unacceptable risks for industrial reuse, but did present unacceptable risks for Subsequent groundwater sampling data indicated the groundwater remedial Foluene, Naphtha, Hydrofluoric Acid Spills) and Site 40 (Safety Kleen Units) and outside of Building 689. The 1996 Final Environmental Baseline Survey action in the form LUCs to prevent use of fluvial aquifer groundwater and to concurred in 2002 to change this subparcel from Category 4 to Category 6. that did not present unacceptable risks for industrial reuse, but did present several constituents exceeding BCT screening cnteria that did not present residential reuse. The report also indicated that groundwater beneath this spills are documented from May 8, 1990 through November 16, 1995 and included nitric acid, corrosion removing compound, hydraulic fluid, oil and This subparcel is associated with Building 689. Site 78 (Alcohol, Acetone, sulfunc acid. The Spill Team responded, took the appropriate action and and to prevent residential or daycare operations reuse. In 2003, the BCT DA executed the deed to DRC in April 2006. This property has been and local regulations. The 1996 Final Environmental Baseline Survey the deed to DRC in April 2006. This property has been transferred. BASIS<sup>c</sup> transferred. Site 78 (Alcohol, Hydrofluoric Acid Site 40 (Safety Building 689 Building 685 Kleen Units) FACILITY Acetone, Toluene, Naphtha, Spill) APPROXIMATE (acres) SIZE 0.73 5,2 coordinates) LOCATION (x, y 15,5 15,4 NUMBER AND SUBPARCEL 21.3(4)HS/HR 21.4(4)HS/HR LABEL<sup>\*</sup>

883 150

49 of 102

Ì

Í

L

·		
REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005
BASIS <sup>c</sup>	This subparcel is associated with the open land area surrounding Buildings 490, 689 and 690. This subparcel contains gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP and grassed areas (Site that were historically sprayed with pesticides and herbicides. This subparcel is also associated with Sites 75 (Unknown Wastes near Building 689) and 76 (Unknown Wastes Near Building 690). The MR RI Peport indicated levels of several constituents exceeding BCT screening orthem a that did not present unacceptable risks for industrial reuse, but did present that did not present unacceptable risks for industrial reuse, but did present that did not present unacceptable risks for industrial reuse, but did present unacceptable fisks for residential reuse. The report also indicated that groundwater beneath this subparcel may require remedial action to reduce VOC levels; threefore, the BCT concurred in 2002 to change this subparcel from Category 7 to Category 6. Subsequent groundwater sampling data indicated the groundwater remedial action would not be implemented at this subparcel. Site 73 is located throughout for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel change from Category 6 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with the open land area between east ends of Buildings 689 and 690. This subparcel contains gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004 transferred
FACILITY	Open land area surrounding Buildings 490, 685, 689 and 690 Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas) Site 75 (Unknown Wastes rear Building 689) Site 76 (Unknown Wastes rear Building 690)	Open land area between east ends of Buildings 689 and 690
APPROXIMATE SIZE <sup>b</sup> (acres)	32.9 (based on the survey performed for the transfer the area is 24.4 acres)	0.66
LOCATION (x, y coordinates)	19,3	18,4
SUBPARCEL NUMBER AND LABEL	21.5(4)	22 1(4)

883 151

50 of 102

Ì

.

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
22.2(4)	17,4	0.58	Spill area east of Building 685 between Buildings 689 and 690 Site 77 (Unknown Wastes near Buildings 689 and 690)	This subparcel is associated with Site 77 (Unknown Wastes Near Buildings 689 and 690). Battery acid spilled during MHE battery charging procedures was washed out a nearby door onto the gravel area immediately east of Building 685. This subparcel contains gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. In the ROD calls for remedial action is the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the LUCs. A FOST for this property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
23.1(4)	19,2	<0.01	Station/Gate 7	This subparcel is associated with the Sentry Station at Gate 7. There has been no documented release or disposal of hazardous substances or petroleurn products; nor has there been migration from an adjacent property of hazardous substances or petroleurn products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Atthough EPA concurred via letter dated March 13, 1997, with the concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restructions in January 2005.
23.2(4)	13,2	0 02	Sentry Station/Gate 8	This subparcel is associated with the Sentry Station at Gate 8. There has been no documented release or disposal of hazardous substances or petroleum products, nor has there been migration from an adjacent property of hazardous substances or petroleurn products. The MI Rt Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industral reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCS. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations cuse Athough EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel from Category 1 to Category 4 pased on implementation of the LUCs. A FOST for this subparcel was signed in fluy 2004. DA executed the deed to DRC in April 2006. This property has been ransferred	Per MI ROD effective September 6, 2001, other than UCs no further action required. UCs implemented via LUCIP ortion of 2004 MI RD and submission of MI Notice of Land Jse Restrictions in January 2005.
<b>Defense Distr</b> Rev. 1 BRAC Clex	<b>ibution Cent</b> anup Plan Versio	er (Memphis) n 10		January 2007	51 of 102

Ĵ

	than gurred. JCIP d f Land ry	than quired. JCIP d a f Land	r than Juried. JCIP d f Iny
	fective (001, other r action re- med via Lt MI Notice an MI Notice an is in Janua	fective 2001, other action re mted via L1 Mi Notice c is in Janus is in Janus	fective 2001, othe action re action re MI Notice rs in Januć rs in Januć
REMEI	All ROD eff amber 6, 2 i moturthe i implement ission of N Restriction	Al ROD ef amber 6, 2 a mo furthe a mpleme on of 2004 nission of 1 Restriction	All ROD ef ember 6, 2 s no furthe s impleme on of 2004 nission of 1
	Per A Septa Portice Use I Use I	Per A Septa LLUCs LLUCs LUCs 2005	Sept Sept LUCC LUCC Subm USe 2005 2005
BASIS <sup>6</sup>	This subparcel is associated with Building 787. The DRC demolished this building in 2002 The MI RI Report indicated levels of several constituents building in 2002 The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Atthough EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel category 1 to Catagory 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with Building 795. There has been no documented release or disposal of hazardous substances or perforleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report this subparcel from Calegory 1 to Calegory 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with Building 995. There has been no docurrented release or disposal of hazardous substances or petroleum products. Inor has there been migration from an adjacent property of hazardous substances or petroleum products. This subparcel was originally proposed as an ECP Category 1 in a December 6, 1996 CERFA letter, however, EPA was unable to concurr with the proposed ECP Category 1 due to potential groundwater contamination under the subparcel Upon further discussion based on recent EPA property transfer guidance and in a May 17, 1999 letter, EPA provided conditional concurrence with ECP Category 1 for this subparcel. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. This subparcel is in the area of the MI to which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.
FACILITY	Building 787	Wating Shelter/ Building 795	Building 995
APPROXIMATE SIZE <sup>b</sup> (acres)	0.12	0.0	0.18
LOCATION (x, y coordinates)	4	13, 3	5,2
SUBPARCEL NUMBER AND LABEL*	23.3(4) demolished 2002	23.4(4)	23.5(4)

52 of 102

Í

Í

883 154

53 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

1

Î

Ĩ

J

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
BASIS <sup>6</sup>	This subparcel is associated with Building 793, which previously stored flammable items and ordnance material and is Site 82 (Flammables , Buildings 783 and 793). In March 1999, The BCT concurred to change this subparcel from Category 7 to Category 3 based on a BCT visual inspection of the building's interior that determined no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. Dut did present to that did not present unacceptable risks for industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 3 to Category 4 based on implementation of the LUCs. A FOST for this property has been in July 2004, transferred.	This subparcel is associated with a gasoline spill reported on September 13, 1993, adjacent and to the northwest of Building 995. The Spill Team responded, applied absorbent, removed stained soil and disposed of it in accordance with federal, state and local regulations. Soil samples indicated that petroleum hydrocarbons were detected at 3.2 mg/kg, well below the Tennesses clean-up subparcel to Omg/kg. In October 1997, The BCT concurred to change this subparcel to Category 3. In December 1998, The BCT concurred to change this subparcel to Category 3. In December 1998, The BCT concurred to change this subparcel from Category 3. In December 1998, The BCT concurred to change this subparcel from Category 3. In December 1998, the BCT concurred to change this required. The MI RI Report indicated levels of several constituents exceeding for the action was required. The MI RI Report indicated levels of several constituents exceeding cates, but did present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent restential frause. LUCs. The MI ROD in the area of the LUCs. Anticipate completing a FOST for this subparcel in 2008, the BCT concurred to change the LUCs. Anticipate completing a FOST for this subparcel in 2008.
FACILITY	Building 793 Site 82 (Flammables, Buildings 783 and 793)	Spill area outside Building 995
APPROXIMATE SIZE <sup>b</sup> (acres)	0.04	0.25
LOCATION (x, y coordinates)	t.	4.2
SUBPARCEL NUMBER AND LABEL*	23.8(4)	23.9(4)

883 155

54 of 102

Ĩ

I

Ĩ

SUBPARCEL NUMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
23.10(4)	88	5.6	Area X01	This subparcel is associated with the open gravel storage area south of Buildings 873 and 875 in area X01, which was reportedly a small lake when the Depot opened in 1942. This subparcel consists of a gravel area that was historically sprayed with waste oil containing PCP, pesticides and herbicides. Records also indicate transformers possibly containing PCBs may have been stored at this area. There is no documentation of releases from the transformers. In October 1997, the BCT concurred to change this subparcel from Category 7 to Category 3 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA menedy includes LUCs. The MI RD Category 3 believing no further remedial action was required to the MI for which the LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT and to prevent the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
23.11(4)	6,2	e.e	Open land area surrounding Building 995 Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	This subparcel is associated with the open land area surrounding Building 995 This subparcel contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides and gravel areas that were historically sprayed with pesticides, herbicides and waste ol containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse. but did present unacceptable risks for residential reuse Site 73 and this subparcel are located throughout the for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005

;

55 of 102

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

Í

Ê

Ĩ

•

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
24.1(4)HR	10,3	2.0	Former material recoupment area at southern end of open stortage area X02 and at the southeast corner of Building 873 Site 27 (Former Recoupment Area, Building 873)	This subparcel is associated with the southern end of open storage area X02, the gravel area east of Site 27 (Former Recoupment Area, Building 873). The southern end of X02 was used as a hazardous materials recoupment area (remove hazardous materials from damaged containers then repackage the materials) until the current Recoup Building was constructed in 1987/1988. In 1985 the Depot completed a soil removal project as part of pre-RI activities at this subparcel. The 1996 Final Environmental Baseline Survey determined this subparcel to be a Category 5 and the BCT concurred based on the removal action, but that further category changes would require RI results. The MI RI Report indicated levels of several constituents exceeding BCT screening critena that du not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. In 2002, the BCT concurred to change this subparcel from Category 5 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008	Pre-RI activities included soil removal completed in 1985. Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
24.4(4)HS/PS	12,6	2.64	Portion of X03	This subparcel is associated with the eastern side of open storage area X03 extending from the recently constructed W.E. Freeman Drive to 6 <sup>th</sup> Street. The Depot created this subparcel in 2003 upon request from the DRC in order to facilitate transfer of this area. This subparcel consists of a gravel area that was used to store mission stock chemicals and POLs in 55-gallon drums. This area was also histoncally sprayed with waste oil containing PCP, pesticides and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for residential reuse, but did present unacceptable risks for residential reuse, but did present unacceptable risks for residential aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred on Category 4 based on implementation of the LUCs. A FOST for this subparcel for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
29.1(4)	3,10	0.01	Station/Gate 9	This subparcel is associated with the Sentry Station at Gate 9. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005

56 of 102

January 2007

SUBPARCEL NUMBER AND	LOCATION (x, y	APPROXIMATE			
LABEL*	coordinates)	(acres)	FACILITY	BASIS <sup>6</sup>	MITIGATION/
29.2(4)	4,18	30.31	Open storage areas X27 and X30, Buildings	This subparcel is associated with open storage areas X27 and X30, Buildings 801 and 802, and the surrounding open land area extending north to Dunn Road and west to Perry Road. This subparcel contains railinged tracks Sites 70 and	Per MI ROD effective September 6, 2001, other than LUCs no further action required
			801, 802 and 804 as well as	71), open storage areas and other gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP and grassed areas	LUCs implemented via LUCIP portion of 2004 MI RD and
			the surrounding open land area extending to	(Site 73) that were historically sprayed with pesticides and herbicides. The railroad tracks and ballasts were removed in 1999/2000. In addition, this subparcel is associated with a 1.25-gallon hydraulic fluid shift that was reported	submission of MI Notice of Land Use Restrictions in January 2005.
			Durn Road and to Perry Road	on September 12, 1995 in the street. The spill reportedly spread north, through Gate 15, and across Dunn Avenue. The Spill ream resoluted, applied	
			Site 70 (POL, Various	absorbent, removed any stained soil and disposed of all residues in accordance with federal, state and local regulations. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present	
			Crientical Leaks, railroad tracks 1,2,3,4,5 and 6)	unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. Sites 70, 71 and 73 are located throughout the MI and this subharcel is located in the area of the MI for units, the content of the MI	
·			Site 71 (Herbicides, all railroad tracks)	remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel	
			Site 73 (2,4 dichlorophenoxy	from Category 7 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	
			acetic acid, all grassed areas)		
29.3(4)	2,11	0.13	Storm drainage ditch adjacent to Gate 9	This subparcel is associated with Site 56 (West Stomwater Drainage Canat), a stormwater drainage canal that collects the stormwater runoff from the western portion of the MI. The MI RI Report indicated levels of several constituents Lexceeding BCT screening criteria that did not present unaccentable risks for	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs imolemented via 11.10P
			Vest Stormwater Drainage Canal)	industrial reuse, but did present unacceptable risks for residential reuse. No F further action is required for this site, however, it is located in the area of the MI s for which the selected CERCLA remedy includes I I ICs. The MI POD calls for	portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January
				remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT	2005.
				curcurse to criaringe rms subparcel from Category 7 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in Anona	

0

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

57 of 102

883 158

. .

SUBPARCEL NUMBER AND LABEL <sup>®</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
29.4(4)PR	4.18	6	Eastern end of Parcel 19, a portion of open storage area X03 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, alt railroad tracks)	This subparcel is associated with the eastern end of Parcel 29, a portion of open F storage area X30 extending from the recently constructed W.E. Freeman Drive to C Street. The Depot created this subparcel in 2003 upon request from the DRC in order to facilitate transfer of this area. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. In addition, this subparcel is associated with a 1.25-galon hydraulic fluid split that was reported on September 12, 1995. The spill reportedly spread north, through Gate 15, and across Durin Avenue (DDMT 1995) The Spill Team responded, applied absorbent, removed any stained soil and disposed of all residues in accordance with federal, state and local regulations. The MI Ri Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for in the form of LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred that this subparcel be Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006.	Per MI ROD effective september 6, 2001, other than UCs no further action required. UCs implemented via LUCIP ortion of 2004 MI RD and ubmission of MI Notice of Land Ise Restrictions in January 005.

.

883 159

58 of 102

January 2007

1

Í

•	
REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and use Restrictions in January 2005.
BASIS <sup>c</sup>	This subparcel is associated with Building 925. This building served as the Bulk Flammable Materials warehouse and stored 55-gallon drums of flammable materials such as xylene, toluene, acetone, methyl ethyl ketone, methanol and ethanol. Prior to construction of Building 915, this area was a bermed open storage location (X25) for petroleum products and flammable materials. A fabric tension structure was erected over this bermed area and warehoused flammable materials. On January 19, 1988, the fabric tension structure collapsed during a storm resulting in about 325 gallons of flammable materials being released in the bermed area and mixing with about 30,000 gallons of rainwater. The Spill Team and the Memphis Fire Department responded. The material was contained and removed to an appropriate disposal facility. The containment and clean up of this spill has been documented by the Depot and the Memphis Fire Department. The current Building 925 was constructed after this incident over a portion of the original fabric tension structure area. In September 1997, the BCT concurred to change this subparcel from Category 7 to Category 4 because the spill did not occur in the current building and any spilled material had volatized over the past nine years. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred that this subparcel remains Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.
FACILITY	Building 925
APPROXIMATE SIZE <sup>b</sup> (acres)	4
LOCATION (x, y coordinates)	4.14
SUBPARCEL NUMBER AND LABEL	30.1(4)

883 160

59 of 102

January 2007

.

PARCEL BER AND	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	RASISe	REMEDIATION
	4,13	0.42	Spill Area between Buildings 925 and 949 Site 53 (X-25 Flammable Solvents Storage Area near Building 925	This subparcel is associated with the former X25 open storage area, a 1988 spill and Site 53 (X-25 Flammable Solvents Storage Area near Building 925). In the past, flammable materials were stored in 55-gallon drums within an earthen bermed area, which was later converted to a concrete bermed area. In 1988, the tension structure was erected over the concrete bermed area. In 1988, the structure collapsed during heavy winds releasing approximately 327 gallons of flammable materials were stored. The Memphis Fire Department Hazmat approximately 30,000 gallons of water. The Memphis Fire Department Hazmat Team joined the Depot's Spill Team in cleaning up the spill. The material/water waste was purped out of the bermed area and disposed of according to federal, state and local regulations Building 925 was constructed over a portion of the area in 1994. In February 1999, the BCT concurred to change this subparcel from Category 7 to Category 4 based on cleanup of the spill and sample results. The MI Ri Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. No further active ermediation is required for Site 53; however, it is located in the area of the MI for which the selected CFCLA remedy includes LUCs. The MI ROC calls for remediation is the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred that this subparcel remains Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI ND and submission of MI Notice of Land Use Restrictions in January 2005.
	4,15	0.9	Open storage area X23 and open land area surrounding Buildings 925 and 949 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks)	This subparcel is associated with the open land area surrounding Buildings 925 and 949, excluding the area in Subparcels 30.2 and 30.5. This subparcel also contains a portion of open storage area X23 and was formerly open storage area X25. Both X23 and X25 were used to store 55-gallon drums of POLs and flammable materials. Buildings 925 and 949 were constructed on former open storage area X25. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. Sites 70 and 71 are located the PCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 6 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and portion of 2004 MI RD and burnission of MI Notice of Land Use Restrictions in January 2005.

883 161

60 of 102

January 2007

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

.

Ĩ

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Lead contaminated soil was removed from an area of approximately 7,200 square feet. The CERCLA Removal Action was completed in 2001. Paction was completed in 2001. Paction was completed in 2001. LUCs no further remediation LUCs no further remediation necessary. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
BASIS <sup>c</sup>	This subparcel is associated with Building 949, which was used for short-term hazardous substance storage and may have been furnigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from furnigation. In December 1997, the BCT concurred to change this subparcel to Category 1. The MI Rł Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable isks for industrial reuse, but did present unacceptable risk for residential reuse This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EA accurred via letter dated October 20, 1998, with the CERFA letter report that designated this subparcel form Category 1, the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	This subparcel is associated with Site 83 (Disposal of Dried Paint Residues south of Building 949). According to interviews with Depot personnel, spray painting and sand blasting occurred at this location until the early 1980s The MI RI Report indicated levels of several metals exceeding BCT screening criteria and presented unacceptable risks for industrial reuse. The MI FS and Proposed Plan indicated the need for lead-impacted sol to be removed from this subparcel. During development of the MI ROD, DLA elected to conduct a removal action. The ROD contains an explanation of significant differences regarding the removal action decision The Depot completed the removal action in 2001. Site 83 is located in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI RI Report also indicated levels of several constituents that presented unacceptable risks for residential reuse. The MI BCT concurred to change this subparcel from Category 6 to Category 4 based on completion of the removal action and on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.
FACILITY	Building 949	Former spray paint area south of Building 949 Site 83 (Disposal of Dried Parnt Residues south of Building 949)
APPROXIMATE SIZE <sup>b</sup> (acres)	1.4	0.55
LOCATION (x, y coordinates)	4,11	4,10
SUBPARCEL NUMBER AND LABEL	30.4(4)	30.5(4)

883 162

61 of 102

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
33.1(4)	12,16	0.01	Building 727	This subparcel is associated with Building 727. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial Although EPA concurred via buted dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1 the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
33.2(4) demolished 2002	14,10	0.05	Building 754	This subparcel is associated with Building 754. There has been no documented release or disposal of hazardous substances or petroleum products, nor has there been migration from an adjacent property of hazardous substances or petroleum products. The DRC demolished this building in 2002. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria trat did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse. The MI ROD calls for remedial which the CERCLA remedy includes LUCs. The MI ROD calls for remedial which the CERCLA remedy includes LUCs. The MI ROD calls for remedial effect dated March 13, 1997, with the CERFA letter report that designated this subparcel category 1, the BCT concurred in 2002 to change this subparcel from Category 1, the CT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per Mi ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.

883 163

62 of 102

January 2007

٠

l .

SUBPARCEL	LOCATION	APPROXIMATE			
NUMBER AND LABEL	(x, y coordinates)	SiZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>¢</sup>	REMEDIATION/ MITIGATION
33.3(4)	14,10	0.01	Building 755	This subparcel is associated with Building 755. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form of LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel from Category 1 the BCT concurred in 2002 to change this subparcel from Category 1 to Category 6 based on potential for groundwater remedial action at this subparcel. Subsequent groundwater subparcel. In SU03, the BCT concurred this subparcel. Subsequent groundwater subparcel. In Su03, the LUCs. A FOST for this subparcel in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
33.4(4)	14,9	0.06	Building 756	This subparcel is associated with Building 756. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risk for industrial reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI RIOD calls for rendial action in the form LUCs to prevent use of fluvial aquiter groundwater and to prevent residential or daycare operations reuse. This approve the RIOD calls for residential or dated March 13, 1997, with the CERFA letter report that designated this subparcel Kategory 1 to Category 1 the BCT concurred in 2002 to change this subparcel from Category 1 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
33.7(4) removed 1994	13,8	0.15	Former aboveground storage tank (Building 765) east of Building 770 Site 81 (Fuel Oil AST Building 765) Removed in 1994.	This subparcel is associated with Site 81 (Fuel Oil Building 765), a 12,000-gallon desel fuel aboveground storage tank removed in 1994. This subparcel also contains a gravel area that was historically sprayed with pesticides, herbicides and waste oil containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. Site 81 is located in the area of the MI for which the selected CERCLA remedy prevent use confluents LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 4 based on implementation of the LUCs in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
Defense Distr Rev. 1 BRAC Clea	ibution Cent anup Plan Versic	ter (Memphis) on 10		January 2007	63 of 102

[····		T
REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Per Mi ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.
BASIS <sup>6</sup>	This subparcel is associated with Building 753. There has been no documented release or disposal of hazardous substances or petroleum products, nor has there been migration from an adjacent property of hazardous substances or petroleum products. The DRC demolished this building in 2002. This subparcel became a Category 1 due to the ECP category definition change that occurred atter the 1996 Environmental Baseline Survey categorized this subparcel became a Category 1 based on the new ECP definitions. The MI RI Report after the 1996 Environmental Baseline Survey categorized this subparcel as a category 2. At the October 1997 meeting, the BCT concurred to change this subparcel to a Category 1 based on the new ECP definitions. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that dispensent unacceptable risks for industmal reuse, but did present unacceptable risks for industmal reuse, but did present unacceptable risk for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the residential or daycare operations reuse. Although EPA concurred via letter dated October 20, 1998, with the CERFA letter report that designated this subparcel Concurred in 2002 to change this subparcel from Category 1 to Category 1, the BCT concurred in 2002 to change this subparcel from Subparcel from Subparcel Was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred	This subparcel is associated with the 1,000-gallon diesel above ground storage tank outside Building 756. The original 1,000-gallon underground storage tank supplying the emergency generator in Building 756 was removed in June 1994. The 1996 Final Environmental Baseline Survey determined this subparcel to be Category 2 and the BCT concurred believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for roundwater and of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent tesidential or daycare operations reuse. In 2002, the BCT concurred to predet this subparcel from Category 2 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been firansificred.
FACILITY	Building 753	Outside Building 756
APPROXIMATE SIZE <sup>b</sup> (acres)	0.01	0.25
LOCATION (x, y coordinates)	14,10	9.49
SUBPARCEL NUMBER AND LABEL <sup>1</sup>	33.10(4) demolished 2002	33.11(4)

883 165

64 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

1

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and use Restrictions in January 2005.
BASIS <sup>6</sup>	This subparcel is associated with the open land area surrounding Subparcels 33.2, 33.3, 33.4, 33.7, 33.10 and 33.11 at the southem end of Parcel 33 extending from the Memphis Depot Parkway and W.E. Freeman Drive to 6 <sup>th</sup> Street. The Depot created this subparcel in 2003 upon request from the DRC in order to facilitate transfer of this area. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbidides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. Sites 70 and 71 are located throughout the MI and this subparcel is in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for residential or daycare operations reuse. In 2003, the BCT concurred on Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	This subparcel is associated with Building 720, open storage areas X08 and X09, Site 80 (Fuel and Cleaners Dispensing Building 720), as well as the open land area surrounding Buildings 720 and 727 at the northern end of Parcel 33 extending from W.E. Freeman Drive to 6 <sup>th</sup> Street. The Depot created this subparcel in 2003 upon request from the DRC in order to facilitate transfer of this area. This area contains gravel areas where mission stock chemical items were stored in 55-gallon drums. This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, and 71) and gravel areas that were historically sprayed with Depot tracks (Sites 70 and 71) and gravel areas that were historically sprayed with Depot personnel, cleaners were not dispensed from Building 720; parts cleaning solutions were used in the building No evidence was found of a 1,000-gallon duesel aboveground storage tank west of Building 720; parts cleaning solutions were used in the building No evidence was found of a 1,000-gallon diesel aboveground storage tank west of Building 720; parts cleaning solutions were used in the building No evidence was found of a 1,000-gallon diesel aboveground storage tank west of Building 720; that was removed in 1997. The MI RI Report indicated levels of several constituents exceeding BCT screening colutions were used in the building No evidence use of invital aruse, but did present unacceptable risks for industral reuse, but did present unacceptable risks for industral reuse, but did present unacceptable risks for industral reuse, but did present unacceptable risks for readeding BCT screening criteria that did not present unacceptable risks for industral reuse, but did present unacceptable risks for industral reuse, but did present unacceptable risks for readeding BCT screening criteria that did not residential or daycare operations reuse. In 2003, the BCT concurred on Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 20
FACILITY	Southern end of Parcel 33 Site 70 (POL, Various Chemical tracks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks)	Building 720, open storage areas X08 and X09, open land area surrounding Buildings 720 and 727 at the northern end of Parcel 33 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks) Site 80 (Fuel and Cleaners Dispensing Building 720)
APPROXIMATE SIZE <sup>b</sup> (acres)	6.15	6.34
LOCATION (x, y coordinates)	14,9	12, 15
SUBPARCEL NUMBER AND LABEL	33.12(4)	33 13(4)HS

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

65 of 102

TABLE 3-6 SUBPARCEL DESCRIPTIONS
-------------------------------------

Ĩ

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>°</sup>	REMEDIATION/ MITIGATION
34.1(4)	24,8	0,4	Building 360	This subparcel is associated with Building 360. This building was constructed just before base closure and was not used for storage. There has been no documented release or disposal of hazardous substances or petroleum products; nor has there been migration from an adjacent property of hazardous substances or petroleum products. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for residential reuse. Although EPA concurred via letter dated March 13, 1997, with the CERFA letter report that designated this subparcel Category 1 to Category 1 to Category 6 based on the remedial actions addressed by the MI RD. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial actions addressed by the MI RD. This subparcel is in the area of the MI for which the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred to change this subparcel from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been transferred.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005
34.2(4)	24,7	2.7	Open land area surrounding Building 360 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) Site 71 (Herbicdes, all railroad tracks) Site 73 (2,4 dichlorophenoxy acefic acid, all grassed areas)	This subparcel is associated with the open land area surrounding Building 360 This subparcel contains railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. This subparcel also contains grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. In October 1997, the BCT concurred to change the MIRI Report indicated levels of several constituents exceeding BCT screening critera that did not present unacceptable insks for industrial required. The MIRI Report indicated levels of several constituents exceeding BCT screening critera that did not present unacceptable insks for industrial reuse, but did present unacceptable risks for residential reuse. Sites 70, 71 and 73 are located throughout the MI and this subparcel is located in the area of the MI for which the selected CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2003, the BCT concurred to change this subparcel from Category 6 to Category 4 based on implementation of the LUCs. A FOST for this subparcel was signed in July 2004. DA executed the deed to DRC in April 2006. This property has been	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and portion of 2004 MI RD and Use Restrictions in January 2005.

883 167

66 of 102

•

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
35.1(4)	n r	0.02	Building 1090	This subparcel is associated with Building 1090 that was used to store paint thinner, lubricating oil, P-19 preservation oil, and corrosion preservation compound. In February 1999, the BCT concurred that this building be cleaned during the removal action for the surrounding area and to change the subparcel from Category 7 to Category 6. The Depot completed the removal action in August 2000. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. This subparcel is in the area of the MI for which the CERCLA remedy includes LUCs. The MI ROD calls for remedial action in the form LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 6 to Category 8 based on implementation of the LUCs. Anticipate completing a FOST for this subparcel in 2008.	Building cleaned as part of non- time critical removal action in Parcels 28 and 35 completed in 2000. Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land USe Restrictions in January 2005.
36.14 (4)	1,11	0.33	Pistol Range Site 60 (Pistol Range Impact Area/Bullet Stop) Site 84 (Old Pistol Range Pistol Range 118 Building 118 Building Pesticide Storage)	This subparcel is associated with Site 60 (Pistol Range Impact Area and Bullet Stop) and Site 85 (Pistol Range Building 1184/Temporary Pesticide Storage). The DF Rt Report indicated several constituents exceeding BCT screening criteria that did not present unacceptable risks for residential, recreational and industrial reuse. However, lead levels at the pistol range impact area did present unacceptable risks for residential reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. In Ebruary 2002, the BCT concurred to conduct a removal action at this subparcel, which was completed in March 2003. The DF ROD indicates no further action required for Sites 60 and 84. In 2004, the BCT concurred to change this subparcel from Category 6 to Category 4. A FOST for this subparcel was signed in March 2005. On September 27, 2005 DA signed the Letter of Assignment transferring 17.66 acres to DOI/NPS, which was to property and DOI/NPS returned the property to DA. In July 2006, DA offered this property for public sale, but as of October 2006 it has not sold. This property has been transferred from DLA to DA.	Non-time critical removal action of lead in soil at the backstop area of Site 60 and removal of Building 1184 completed in March 2003. DF ROD effective April 12, 2004 indicates no further remediation necessary for this subparcel.
Environmental (	<b>Condition Cate</b>	gory 5: No subpa	rcels designate	d Category 5.	

67 of 102

submission of MI Notice of Land submission of MI Notice of Land LUCs no further action required. the groundwater treatment area where enhanced bioremediation where enhanced bioremediation LUCs no further action required. September 6, 2001, other than the groundwater treatment area remedy. Construction of the MI Per MI ROD effective September 6, 2001, other than remedy Construction of the MI LUCs implemented via LUCIP LUCs implemented via LUCIP 2005. This subparcel overlies was selected as the CERCLA was selected as the CERCLA 2005 This subparcel overlies Use Restrictions in January Use Restrictions in January portion of 2004 MI RD and portion of 2004 MI RD and operations began in 2006. operations began in 2006. **REMEDIATION** MITIGATION Per MI ROD effective RA completed and RA RA completed and RA this subparcel may contain VOC levels exceeding MCLs. This building is located in the area of the MI for which the selected CERCLA remedy includes LUCs and form of enhanced bioremediation of groundwater as well as LUCs to prevent use it also overlies the groundwater treatment area where enhanced bioremediation daycare operations reuse. In 2002, the BCT concurred to change this subparcel actions in the form of enhanced bioremediation of groundwater as well as LUCs based on potential for groundwater remedial action at this subparcel. Anticipate is the selected CERCLA remedy The MI ROD calls for remedial actions in the of fluvial aquifer groundwater, and to prevent residential or daycare operations MI RI Report indicated levels of several constituents exceeding BCT screening groundwater beneath this subparcel may contain VOC levels exceeding MCLs. risks for residential reuse. The report also indicated that groundwater beneath and the BCT concurred believing no further remedial action was required. The present unacceptable risks for residential reuse. The report also indicated that Environmental Baseline Survey determined this subparcel to be a Category 3 present unacceptable risks for industrial reuse, but did present unacceptable located in areas of the MI for which the CERCLA remedy includes enhanced bioremediation of groundwater and LUCs. The MI ROD calls for remedial levels of several constituents exceeding BCT screening criteria that did not concurred in 2002 to change this subparcel from Category 1 to Category 6 This subparcel is associated with Building 270. The Mi Ri Report indicated criteria that did not present unacceptable risks for industrial reuse, but did to prevent use of fluvial aquifer groundwater, and to prevent residential or No further action is required for Sites 30 and 41; however, these sites are reuse. Although EPA concurred via letter dated March 13, 1997, with the from Category 3 to Category 6 based on the remedial actions. Anticipate CERFA letter report that designated this subparcel Category 1, the BCT This subparcel is associated with Building 260, Site 41 (Satellite Drum Accumulation Area) and Site 30 (Paint Spray Booth). The 1996 Final completing a FOST for this subparcel in 2008. completing a FOST for this subparcel in 2008. BASIS Site 41 (Satellite Building 270 Site 30 (Paint Accumulation Spray Booth) Building 260 FACILITY ENO Area) APPROXIMATE SIZE<sup>b</sup> (acres) 0.33 0.15 Environmental Condition Category 6: coordinates) LOCATION X, X 31,7 30,9 4.4(6)PS/PR/HS NUMBER AND SUBPARCEL LABEL' 4 2(6)

883 169

68 of 102

January 2007

I

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
4.5(6)	30.8	3.2	Building 261 and area surrounding buildings in Parcel 4	This subparcel is associated with Building 261 and the open land area surrounding buildings in Parcel 4. This subparcel contains grassed areas that were historically sprayed with herbicides and pesticides. A 5,000-gallon heating oil tank was removed in July 1994 outside of Building 253. Two 12,000-gallon heating oil tank was removed in July 1994 outside of Building 253. Two 12,000-gallon heating oil tank was removed in July 1994 outside of Building 253. The 1986 257. One 18,000-gallon and one 20,000-gallon gasoline USTs that were actually in Subparcel 4.6 replaced these tanks. These tanks were removed in June 1998. Soil sampling conducted in accordance with TN UST removal procedures indicated no release of gasoline or diesel. The MI RI Report indicated levels of unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. This building is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area where enhanced bioremediation is the selected CERCLA remedy. The MI ROD calls for remedial actions in the euse. In 2002, the BCT concurred to groundwater as well as LUCs to prevent use euse. In 2002, the BCT concurred to change this subparcel from Category 7 to category 6 based on the remedial actions. Anticipate completing a FOST for this jubparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and use Restrictions in January 2005. This subparcel overfies the groundwater treatment area where enhanced bioremediation was selected as the CRRCLA remedy. Construction of the MI RA completed and RA operations began in 2006.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

883 170

ar MI ROD effective aptember 6, 2001, other than JCs no further action required Los implemented via LUCIP	ar MI ROD effective sptember 6, 2001, other than JCs no further action required. JCs implemented via LUCIP JICs implemented via LUCIP Intrission of MI Notice of Land se Restrictions in January	er MI ROD effective aptember 6, 2001, other than JCs no further action required. JCs implemented via LUCIP JCs implemented via LUCIP intro of 2004 MI RD and intro of 2004 MI RD and intro of 2004 MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area	er MI ROD effective aptember 6, 2001, other than JCs no further action required. JCs implemented via LUCIP anton of 2004 MI RD and bmission of MI Notice of Land bese Restrictions in January 05. This subparcel overlies are groundwater treatment area here enhanced bioremediation here schedred as the CFRC1 A	er MI ROD effective aptember 6, 2001, other than JCs no further action required. JCs implemented via LUCIP inton of 2004 MI RD and britission of MI Notice of Land se Restrictions in January 65. This subparcel overfies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI	er MI ROD effective aptember 6, 2001, other than JCs no further action required. JCs implemented via LUCIP ortion of 2004 MI RD and ibmission of 2004 MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI	er MI ROD effective sptember 6, 2001, other than JCs no further action required. JCs implemented via LUCIP ortion of 2004 MI RD and bmission of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	er MI ROD effective eptember 6, 2001, other than JCs in plemented via LUCIP JCs implemented via LUCIP ortion of 2004 MI RD and brinission of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area here enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	ar MI ROD effective aptember 6, 2001, other than DCs no further action required. DCs implemented via LUCIP action of 2004 MI RD and britission of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area area enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	ar MI ROD effective aptember 6, 2001, other than DCs no further action required. DCs implemented via LUCIP anton of 2004 MI RD and britission of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	ar MI ROD effective aptember 6, 2001, other than JCs in plemented via LUCIP JCs implemented via LUCIP arton of 2004 MI RD and priton of 2004 MI RD and brinission of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	ar Mi ROD effective aptember 6, 2001, other than JCs in plemented via LUCIP JCs implemented via LUCIP arton of 2004 MI RD and brinission of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	ar Mi ROD effective aptember 6, 2001, other than JCs implemented via LUCIP JCs implemented via LUCIP artion of 2004 MI RD and priton of 2004 MI RD and are restrictions in January 05. This subparcel overlies e groundwater treatment area area enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	ar Mi ROD effective aptember 6, 2001, other than JCs inplemented via LUCIP JCs implemented via LUCIP arton of 2004 MI RD and priton of MI Notice of Land se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the MI A completed and RA erations began in 2006.	er Mi ROD effective sptember 6, 2001, other than JCs inplemented via LUCIP ortion of 2004 Mi RD and priton of 2004 Mi RD se Restrictions in January 05. This subparcel overlies e groundwater treatment area nere enhanced bioremediation as selected as the CERCLA medy. Construction of the Mi A completed and RA erations began in 2006.
g as LUCs no further acting as LUCs implemented	LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nk all Use Restrictions in	g as LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI N( all Use Restrictions in , on 2005. This subparci	g as LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nc all Use Restrictions in . in 2005. This subparce the groundwater trei where enhanced bit reast as the	LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nc all Use Restrictions in , on 2005. This subparcé on 2005. This subparcé s where enhanced bit was selected as the remedy. Constructic	g as LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nc all Use Restrictions in , use Restrictions in , an 2005. This subparce is where enhanced bid is where enhanced bid is RA completed as the remedy. Constructio	LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nr all Use Restrictions in, on 2005. This subparco the groundwater tree s the groundwater tree s where enhanced bic remedy. Constructio y 6 RA completed and F operations began in erra	g as LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nc all Use Restrictions in , on 2005. This subparce is the groundwater tre: where enhanced bit was selected as the remedy. Constructio y 6 RA completed and F operations began in eria	g as LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nc all Use Restrictions in , on 2005. This subparcé where enhanced bic remedy. Constructio y 6 RA completed and F operations began in eria	g as LUCs no further act g as LUCs implemented portion of 2004 MI F submission of MI Nc all Use Restrictions in , use Restrictions in , use Restrictions in , on 2005. This subparcé where enhanced bir remedy. Constructio KA completed and F operations began in erra	g as LUCs no further act g as LUCs implemented portion of 2004 MI R all Use Restrictions in , an 2005. This subparcé where enhanced bic was selected as the remedy. Constructio ¢ 6 RA completed and F operations began in eria	g as LUCs no further act g as LUCs implemented portion of 2004 MI R all Use Restrictions in , on 2005. This subparce is the groundwater tra: where enhanced bic was selected and F veria selected and F operations began in eria	g as LUCs no further act g as LUCs implemented portion of 2004 MI R submission of MI Nc all Use Restrictions in , on 2005. This subparce is the groundwater tra: where enhanced bic was selected as the remedy. Constructio y 6 RA completed and F operations began in eria	g as LUCs no further act g as LUCs implemented portion of 2004 MI K all Use Restrictions in , all Use Restrictions in , all Use Restrictions in , all Use Restrictions in , and 2005. This subpared is where enhanced bic where enhanced bic where enhanced bic remedy. Constructio y 6 RA completed and F operations began in eria	g as LUCs no further act g as LUCs implemented portion of 2004 MI R all Use Restrictions in , all Use Restrictions in , all 2005. This subparero is where enhanced bic where enhanced bic was selected as the remedy. Constructio y 6 RA completed and F completed and F ater D D ater d D
	sumunity as processing el spill portion of 2 orner of submission sed of all Use Restrix	el spill portion of 2 mer of portion of 2 mer of JUse Restric 10-gallon 2005. This 2 USTs the ground-	al spull set of all portion of 2 mer of all Use Restric 10-gallon 2005. This 0 USTs the ground tember where entic	al spill portion of 2 mer of submission sed of all Use Restric (0-galion 2005. This o USTs the ground tember where enhi- uled UST was selected in remedy. Co	al spill portion of 2 mmer of portion of 2 mmer of portion of 2 mmer of Use Restric 0-gallon 2005. This 0 USTs the ground- tember where enhi- tember was select in remedy. Co	al spill portion of 2 al spill portion of 2 mmer of all Use Restric sed of all Use Restric 10-gallon 2005. This 0 USTs the ground- tember where enhi- tember was select uled UST was select ategory 6 RA complei ategory 6	al spill sortion of 2 al spill portion of 2 inmer of all Use Restric sed of all Use Restric 10-gallon 2005. This 10-gallon 2005. This 1	al spill portion of 2 mer of portion of 2 mer of submission sed of all Use Restric (0-galion 1 Use Restric (0-galion 2005, This JUSTs where enhi- tember where enhi- uled UST was select in remedy. Co ategory 6 RA complei in RI operations ng criteria	al spill portion of 2 al spill portion of 2 sed of all Use Restric (0-gallon Use Restric (0-gallon 2005, This JUSTs where enhis tember where enhis uled UST was select in remedy. Cc ategory 6 RA complet II RI operations and criterra g MCLs.	al spill portion of 2 el spill portion of 2 imer of all Use Restric sed of all Use Restric 10-gallon 2005. This 10-gallon 2005. This 10	al spill portion of 2 el spill portion of 2 imer of all Use Restric sed of all Use Restric 10-gallon 2005. This J USTs the groundy tember where enha tember where enha tember where enha temedy. Cc ategory 6 RA complet II RI operations operations M ROD MI ROD	al spill portion of 2 al spill portion of 2 imer of all Use Restric sed of all Use Restric 10-gallon 2005. This 0 USTs the groundy tember where entre uled UST was selecter uled UST was selecter the groundy Criteria operations I g MCLs. g MCLs. g MCLs. area	al spill portion of 2 al spill portion of 2 imer of all Use Restric sed of all Use Restric 10-gallon 2005. This 0 USTs the groundy tember where entre uled UST was selected in remedy. Cc fin remedy. Cc fin operations of criteria g MCLs. g MCLs. g MCLs. g MCLs. g MCLs. g MCLs. fevent	al spill portion of 2 al spill portion of 2 imer of all Use Restric sed of all Use Restric 10-gallon 2005. This 0 USTs the groundy tember where enha where
C and a start of the start of t	5-gallon diesel spill southwest corner of ent and disposed of al	5-gallon diesel spill southwest corner of ent and disposed of all lations. A 1,110-gallon UST field Two USTs	5-gallon diesel spill southwest corner of ent and disposed of all lations. A 1,110-gallon UST field Two USTs 254. In September s to the scheduled US	5-gallon diesel spill southwest corner of ent and disposed of all lations. A 1,110-gallon JST field Two USTs j 254. In September is to the scheduled UST y TDEC-UST in	5-gallon diesel spill southwest comer of ent and disposed of all lations. A 1,110-gallon JST field Two USTs J 254. In September to the scheduled UST y TDEC-UST in y TDEC-UST in	5-gallon diesel spill southwest corner of ent and disposed of all lations. A 1,110-gallon JST field Two USTs J 254. In September to the scheduled UST y TDEC-UST in y TDEC-UST in y TDEC-UST in guired. The MI RI BCT screening criteri	5-gallon diesel spill southwest corner of ent and disposed of all lations. A 1,110-gallon J251 in September i to the scheduled UST y TDEC-UST in barcel from Category 6 quired. The MI RI BCT screening criterr e, but did present	5-gallon diesel spill southwest corner of ant and disposed of all lations. A 1,110-gallon JST field Two USTs 224. In September it to the scheduled UST 7 TDEC-UST in barcel from Category 6 quired. The MI RI BCT screening criter e, but did present wolds excreation MC1 s	5-gallon diesel spill southwest corner of ant and disposed of all lations. A 1,110-gallon JST field Two USTs J 254. In September i to the scheduled UST / TDEC-UST in barcel from Category 6 quired. The MI RI BCT screening criter e, but did present ndicated that dicated that selected CERCLA.	5-gallon diesel spill southwest corner of ent and disposed of all lations. A 1,110-gallon JST field Two USTs J 254. In September i to the scheduled UST / TDEC-UST in parcel from Category 6 quired. The MI RI BCT screening criter e, but did present ndicated drat red present estected CERCLA estected CERCLA	5-gallon diesel spill southwest corner of and disposed of all JST field Two USTs J 254. In September it to the scheduled UST in ZTC-UST in Darcel from Category 6 quired. The MI RI BCT screening criterr e, but did present ndicated that vels exceeding MCLs. selected CERCLA is readment area	5-gallon diesel spill southwest corner of attons. A 1,110-gallon JST field Two USTs J 254. In September it to the scheduled UST / TDEC-UST in varcel from Category 6 quired. The MI RI BCT screening criteri- e, but did present ndicated that vels exceeding MCLs. vels exceeding MCLs. vels exceeding MCLs. vels exceeding MCLs. vels exceeding MCLs. vels exceeding MCLs.	5-gallon diesel spill southwest corner of attons. A 1,110-gallon JST field Two USTs J 254. In September to the scheduled UST / TDEC-UST in varcel from Category 6 quired. The MI RI BCT screening criteri- e, but did present ndicated that vels exceeding MCLs. selected CERCLA er treatment area remedy. The MI ROD ediation of groundwatt ater, and to prevent	5-gallon diesel spill southwest corner of attors. A 1,110-gallon J3T field Two USTs J 254. In September to the scheduled UST / TDEC-UST in parceffrom Category 6 quired. The MI RI BCT screening criteri- e, but did present ndicated that vels exceeding MCLs. vels exceed CERCLA ter treatment area ter treatment area remedy. The MI ROD ediation of groundwatch attr, and to prevent concurred to change
	k outside the south plied absorbent and	k outside the south k outside the south plied absorbent and docal regulations 89 from the UST fie	in accuracy, a cyam, the outside the south plied absorbent and the other regulations 89 from the UST fic thind Building 254.	k outside the south plied absorbent and rd local regulations. 89 from the UST fic thind Building 254. ttegory 6 due to the e approval by TDE(	k outside the south plied absorbent and of local regulations. 89 from the UST fie hind Building 254. tegory 6 due to the e approval by TDE( office uncountro	k outside the south plied absorbent and of local regulations. 89 from the UST fie hind Building 254. ttegory 6 due to the e approval by TDE( nge this subparce! to ctron was required. ts exceeding BCT 4	k outside the southin plied absorbent and d local regulations. 89 from the UST fie hind Building 254. tepgory 6 due to the a approval by TDE( nge this subparce! 1 action was required. ts exceeding BCT 3 dustrial reuse, but	k outside the south plied absouthant of local regulations. B9 from the UST fie hind Building 254. Itegory 6 due to the a approval by TDE( nge this subparce! 1 detion was required. Is exceeding BCT s dustrial reuse, but report also indicati	in accurate the south plied absorbent and rol local regulations. 89 from the UST file hind Building 254. Itegory 6 due to the a approval by TDEC rige this subparcel 1 tection was required. Is exceeding BCT s for which the select for which the select	in accurate the south plied absorbent and rol local regulations. B9 from the UST file hind Building 254. Itegory 6 due to the a approval by TDEC nge this subparcel 1 tection was required. Its exceeding BCT s dustrial reuse, but the report also indicatt rtain VOC levels es for which the select	k outside the southin plied absorbent and docal regulations. 89 from the UST fie hind Building 254. Itegory 6 due to the a approval by TDE( Toge this subparcel f dustrial reuse, but report also indicatt nation VOC levels ext for which the select for which the select ef groundwater trees ted CERCLA remed	k outside the southin plied absorbent and d local regulations 89 from the UST fie hind Building 254. Itegory 6 due to the a approval by TDEC nge this subparcel f dustrial reuse, but the exceeding BCT s dustrial reuse, but the select for which the select the groundwater trea thed CERCLA remec	k outside the southine plied absorbent and of local regulations. 89 from the UST fie hind Building 254. Itegory 6 due to the a approval by TDEC nge this subparcel f nge this subparcel f dustrial reuse, but i report also indicatt thain VOC levels ex for which the select the groundwater trea the CERCLA remec nced bioremediatio ifer groundwater, a	k outside the south plied absorbent and d local regulations. 89 from the UST fie hind Building 254. Itegory 6 due to the a approval by TDEC nge this subparcel f nge this subparcel to the vection was required. Its exceeding BCT & dustrial reuse, but report also indicate thain VOC levels ex- train VOC levels ex- to which the select the CERCLA remec nced bioremediatio ifer groundwater, a 002, the BCT concu
F from o fools	u, iiuii a laili u ssponded, appli	o, non a tany o isponded, applii feral, state and December 1989	9, num a tain use to num a tain use to num a tain use to num a policies and becamper 1989 to UST field behin boarcel to Cate to Cate	o, noni a uain o isponded, appli leral, state and December 1989 UST field behi bparcel to Cate bparcel to Cate f UST closure ε	o, initial addition isponded, applitic isponded, applitic becember 1989 UST field behir bparcel to Cate it UST closure a currend to chang	Junit a data to the second of application of a species and becapite and becapite and becapite and between the second of the s	Junual additional additional additional application application application application application and the second state and the second	Junual addition of a control of a control of a control of a control of the contro	Junual addition of the second second application of the second se	Junual additional additional additional additional application application application application and the standard standard application additional additi	Junual addition of the second application of the second second application of the second of the seco	o, initial additional additional additional additional special applications applied applied behin by arcel to Cately and the substructurents are constituents and constituents are constituents and constituents are cons	of introme addition of the second of application application of the state and becamber 1989 UST field behin biparcel to Cately biparcel to Cately fusched to change fusched to change and constituents al constituents are areal activity of the MI for second form of the MI for second form of fluvial aquife of fluvial aquife	Junual addition of the second
	larch 20, 1995 Spill Team res	larch 20, 1995 Spill Team res lance with fede removed in Dr	larch 20, 1995 Spill Team res lance with fede removed in Di (998 from the t	larch 20, 1995 Spill Team res ance with fede removed in Di 1998 from the t anged this sub pon receipt of	larch 20, 1995 Spill Team res ance with fede removed in Di 998 from the ( parged this vub pron receipt of the BCT conot	larch 20, 7995 Spill Team res ance with fede removed in Dr 998 from the ( and the team pron receipt of pron receipt of he BCT concu- he BCT concu-	larch 20, 1995 Spill Team res ance with fede removed in Dc 998 from the t anged this subj pon receipt of he BCT contor ving no furthe evels of severa trunacceptabl	larch 20, 7995 Spill Team res ance with fede ance with fede anged this subl pon receipt of he BCT concu eving no furthe eving no furthe si for residential ath this subnan	larch 20, 7995 Spill Team res ance with fede ance with fede anged this subl pon receipt of he BCT concu aving no furthe versi of severa ti runacceptablic at this subpail at this subpail	larch 20, 7995 Spill Team res ance with fede removed in Dic 998 from the L anged this subj pon receipt of he BCT conou wing no furthe svels of severa it unacceptablic for residential af or resudential at this subpar atted in the arc UCs and it als:	larch 20, 7995 Spill Team res ance with fede removed in Dic 998 from the L anged this subj pon receipt of he BCT contor wing no furthe svels of severa for residential aft this subpat for resudential atted in the are UCS and it als:	larch 20, 7995 Spill Team res ance with fede removed in Dc 998 from the L mged this subj pon receipt of he BCT concu ving no furthe vers of severa at this subpat at this subpat at this subpat at this subpat at this subpat at this subpat in the are UCS and it als: uncremediation actions in the fr	larch 20, 7995 Spill Team res ance with fede removed in Dc 998 from the t anged this subj pon receipt of pon receipt of he BCT concu virg no furthe vels of severa at this subpat at this subpat at this subpat at the are UCs and it als: UCs and it als:	larch 20, 7995 Spill Team res ance with fede entremoved in Dc 998 from the t anged this subj pon receipt of pon receipt of he BCT concu- ving no furthe evels of severa at this subpart at this subpart at this subpart at this subpart of as of correndential at this subpart of the are UCS and it als.
	reported on Ma treported on Ma ding 254. The S	i as reaking urun i reported on Ma ding 254. The S dues in accorda dues in accorda	Las reaking unui reported on Ma ding 254. The S dues in accorda dues in accorda oline tank was ri e removed in 19 e removed in 19	Las reaving unuillas reaving unuillas reaving unuillas traported on Ma dueng 2.34. The S dueng 2.34. The S duene tank was ri e removed in 19 e removed in 19 oval project. Up	Las reaking uur reported on Ma dues in accorde dues in accorde oline tank was r e removed in 19 7, the BCT char oval project. Up amber 1998, Th	Las reaking uur reported on Ma dues in accorda dues in accorda oline tank was r e removed in 19 7. the BCT char oval project. Up ember 1998, Th attegory 2 believ ort indicated lev	as reaking uur reported on Ma dung 254. The S dung 254. The S dung 254. The S dung 264. Up oval project. Up amber 1998, Th ategory 2 believ out indicated lev	Las reaking uur reported on Ma dues in accorda oline tank was ri e removed in 19 7, the BCT char oval project. Up ember 1998, Th ategory 2 believ ord indicated lev did not present cceptable risks f	Las reaking uur reported on Ma dues in accorda oline tank was ri e removed in 19 7, the BCT char oval project. Up ember 1998, Th aregory 2 believ ord indicated lev did not present did not present indwater beneat i building is local	Las reaking uur reported on Ma dues in accorda oline tank was ri e removed in 19 7, the BCT char oval project. Up amber 1998, Th ategory 2 believ ord indicated lev did not present cocptable risks f ardwater beneat indwater beneat ord includes LU	Las reaking uur reported on Ma dues in accorda oline tank was ri e removed in 19 7, the BCT char oval project. Up ember 1998, Th ategory 2 believ ord indicated lev did not present cceptable risks f cordatable risks f cordatable risks f andwater beneat edy includes LU re enhanced bic	Las reaking uur reported on Ma dues in accorda oline tank was r e removed in 19 7. the BCT char oval project. Up ember 1998. Th ategory 2 believ ort indicated lev did not present cceptable risks f undwater beneal undwater beneal de includes LU re enhanced bu re enhanced bu re enhanced bu	tas reaking uur reported on Ma dues in accorda oline tank was r a corored in 19 7. the BCT char oval project. Up amber 1998. Th artegory 2 belev ort indicated lev did not present cceptable risks f undwater beneal undwater beneal a pincludes LU re enhanced b fell as LUCs to r fell as LUCs to r	Las reaking uur reported on Ma dues in accorda dues in accorda oline tank was r e removed in 19 e removed in 19 7, the tank was r ovar indicate to artegory 2 believ out indicated lev did not present cceptable risks f undwater beneat undwater beneat to remediat is for remediat is for remediat or daycar fentiat or daycar
	wen was Builr	weii was Buik reski	wen Build resit gasc were 199	wer Built Puilt gasc gasc 1995 1995	wen Buit Buit Buit Basc 1995 1995 Dec	wen Buars Buars Buars Gasc 1999: 1999: 1999: 1999: Cent Cent Cent Cent Cent Cent Cent Cent	Rep C C C C C C C C C C C C C C C C C C C	Were Build 1997 1997 1997 1997 1997 1997 1997 199	Were Build Tem 1999 1999 1999 1999 100 100 100 100 100	Were Build 1997 1997 1997 1997 1997 1997 1997 199	were Build 1999 1999 1997 1997 1997 1997 1997 199	wen Buars Buars Buars Casc Casc Casc Casc Casc Casc Casc Cas	were Buars Buars Buars 1999 1999 1990 Coco Coco Coco Coco Coco Coco Coco Coc	resid Buda Buda Buda Buda Buda Ceco Co Co Co Co Co Co Co Co Co Co Co Co Co
					<u> </u>			, ,						
		<u> </u>	·											

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

883 171

.

UBPARCEL UMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
ŵ	6' 0°	0.02	Building 263 Site 68 (POL Building 263, 20 by 40 feet)	This subparcel is associated with Building 263, which has been used as attendants' room for the dispensing of petroleum, oil and lubricant to vehicles and as a vehicle grease rack since the 1940s, and to Site 68 (POL-Building 253). Records do not indicate any release, disposal or migration. In addition, this building was fumigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation. After the December 1997 BCT decision to change fumigated buildings to Category 1, the BCT concurred to change this subparcel to Category 3 based on the potential release and currend to change this subparcel from Category 7 to Category 1, the BCT concurred to change this subparcel from Category 7 to Category 1, the BCT again currend to change this subparcel from Category 7 to Category 1, the BCT again and currend to change this subparcel from Category 7 to Category 3 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening cateria that did not present unacceptable risks for industral reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. Site 68 is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overfles the groundwater reatment area where enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations in the form of selected CERCLA remedy includes LUCs to prevent use of fluvial aquifer groundwater area well as LUCs to prevent use of fluvial aquifer groundwater and to prevent the selected CERCLA remedy includes LUCs to prevent use of fluvial aquifer groundwater and to prevent use of fluvial aquifer groundwater and to prevent use of fluvial aquifer groundwater and to prevent the selected CERCLA remedy includes LUCs to prevent use of fluvial aquifer groundwater and to prevent tesidential or daycare operations in the form of	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected and RA meady. Construction of the MI RA completed and RA operations began in 2006.
G	29,8	<b>4.</b>	Pad 267 Site 58 (Pesticides, Herbicides Pad 267)	This subparcel is associated with Pad 267, the site of the former pesticide shop 16 (Building T267) and Site 58 (Pesticides, Herbicides Pad 267). Pad 267 was a concrete slab that has been covered with asphalt and is currently used as a parking lot. Building T267 was used for storing and mixing of pesticides/herbicides. Rinse water from pesticide/herbicide spraying operations parking lot. Building T267 was used for storing and mixing of pesticides/herbicides. Rinse water from pesticide/herbicide spraying operations parking lot. Building T267 was used for storing and mixing of pesticides/herbicides. Rinse water from pesticide/herbicide spraying operations was reportedly dumped on the ground near the facility. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did this subparcel may contain VOC levels exceeding MCLs. This building is located with this subparcel may contain VOC levels exceeding MCLs. This building is located with this subparcel may contain VOC levels exceeding MCLs. This building is located with this subparcel may contain VOC levels exceeding MCLs. This building is located with the selected CERCLA remedy includes LUCs and with the selected Defect remedial actions in the falso overlies the groundwater treatment area where enhanced bioremediation to the selected Defect A remedy The MI ROD calls for remedial actions in the falso overlies the groundwater residential resources and to fluvial aquifer groundwater, and to prevent residential or daycare operations for the subparcel in 2008.	Per MI ROD effective Per MI ROD effective UCs no further action required. UCs implemented via LUCIP ontion of 2004 MI RD and submission of MI Notice of Land Jse Restrictions in January 055. This subparcel overlies the groundwater treatment area the groundwater treatment area there enhanced bioremediation vas selected as the CERCLA emedy. Construction of the MI &A completed and RA perations began in 2006.

.

ARCEL ER AND BEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION	
······································	31,7	0.26	Building 273 and the former putting green Site 59 (Pesticides, Cleaners Building 273) Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	This subparcel is associated with Building 273 that was used for mixing golf course pesticides and herbicides and the former putting green. It is also associated with Site 59 (Pesticides, Cleaners Building 273). This subparcel includes grassed areas (Site 73) that were historically sprayed with pesticides and herbicides. The MI RI Report indicated levels of several constituents and herbicides. The MI RI Report indicated levels of several constituents and herbicides. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for raidential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MICs. Site 73 is located throughout the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 59 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. Site 50 and this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area where enhanced bioremediation is the form of enhanced bioremediation of groundwater as well as LUCs daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the remedial actions. Anticipate completing a FOST for t	Per MI ROD effective September 6, 2001 other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.	
	29,9	0.22	Building 253 Site 40 (Safety Kleen Unit) Site 66 (POL Building 253)	This subparcel is associated with Building 253, Site 40 (Safety Kleen Unit) and Site 66 (POL Building 253). Petroleum products (55-gallon drums of hydraulic oil) and antifreeze were stored and used at Building 253 Records and visual evidence do not indicate any release, disposal or migration in this building. Safety Kleen prior to closure removed the Safety Kleen unit in September 1997. This building may have been fumigated. Air sampling conducted during the BRAC sampling effort indicated no human health hazards from fumigation. In February 1998, the BCT concurred to change this subparcel to Category 1. The MI R Report indicated levels of several constituents exceeding BCT screening orither a that did not present unacceptable risks for industrial reuse, but did present unacceptable risk for nudustrial reuse, but did present unacceptable risk for nudustrial reuse, but did present unacceptable risk for nudustrial reuse, the report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs. Sites 40 and 66 are located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area where enhanced bioremediaton is the selected CERCLA remedy. The MI ROD calls for remedial actions in the form of enhanced bioremediaton of groundwater as wellen as LUCs to prevent use of fluvial aquifer groundwater and to prevent category 1, the BCT concurred in 2002 to change this subparcel for this subparcel in 2008. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA was selected as the CERCLA was selected and RA pperations began in 2006.	

submission of MI Notice of Land where enhanced bioremediation LUCs no further action required the groundwater treatment area Per MI ROD effective September 6, 2001, other than remedy. Construction of the MI LUCs implemented via LUCIP was selected as the CERCLA 2005. This subparcel overlies Use Restrictions in January portion of 2004 MI RD and operations began in 2006. **REMEDIATION** MITIGATION RA completed and RA reuse. In 2002, the BCT concurred to change this subparce from Category 4 to Category 6 based on the remedial actions. Anticipate completing a FOST for this industrial worker scenarios. In December 1997, the BCT recommended that the sump beneath the floor drain. Results indicate elevated concentrations of many report also indicated that groundwater beneath this subparcel may contain VOC sump be cleaned and, if appropriate, grouted closed and that upon completion completed the action in January 1998, and The BCT concurred to change this connected to the sanitary sewer. One surface soil sample was taken from the levels exceeding MCLs. This building is located in the area of the MI for which subparcel from Category 7 to Category 4 believing no further remedial action industrial reuse, but did present unacceptable risks for residential reuse. The exceeding BCT screening criteria that did not present unacceptable risks for groundwater treatment area where enhanced bioremediation is the selected enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or daycare operations This subparcel is associated with Building 251, demolished in 1999 during concentrations had a risk ratio above acceptable levels for residential and construction of the boulevard construction. Building 251 had a floor drain of this action, the subparcel should change to a Category 4. The Depot was required. The MI RI Report indicated levels of several constituents CERCLA remedy. The MI ROD calls for remedial actions in the form of the selected CERCLA remedy includes LUCs and it also overlies the metals and PAHs. The Preliminary Risk Evaluation indicated these BASIS<sup>c</sup> subparcel in 2008. Building 251 FACILITY APPROXIMATE SIZE (acres) 0.18 coordinates) LOCATION 31,10 (x, y NUMBER AND LABEL SUBPARCEL Demolished 4.12(6) 1999

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

73 of 102

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
4.13(6)	31,8	0. 18	Building 265	This subparcel is associated with Building 265 that has a floor drain that is connected to the sanitary sever. One surface soil sample was taken from the sump beneath the floor drain. Results indicate elevated concentrations of many metals and PAHs. The Preliminary Risk Evaluation indicated these sump beneath the floor drain. Results indicate elevated concentrations of many metals and PAHs. The Preliminary Risk Evaluation indicated these somecentrations had a risk ratio above acceptable levels for residential and industrial worker scenarios. In May 1998, the BCT recommended that the sumption concentrations had a risk ratio above acceptable levels for residential and industrial worker scenarios. In May 1998, the BCT recommended that the sumptible cleaned and, if appropriate, grouted closed and that upon completion of this action. In June 1998 and the BCT concurred to that this subparcel change from MI RI Report industrial reuse. The Depot completed the action in June 1998 and the BCT concurred to that this subparcel that did not present unacceptable risks for industrial reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. This building is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area wells for remedial actions in the form of furvial aquifer groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change fits subparcel from Category 4 to Category 6 based on the remedial actions. Anticipate completion of such as a subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overfies the groundwater treatment area where enhanced bioremediation where enhanced bioremediation remedy. Construction of the MI RA completed an RA operations began in 2006.
5.1(6)	29,7	0.49	Building 272 and surrounding open land area Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)	This subparcel is associated with Building 272 and the surrounding open land area. This subparcel contains grassed areas (Site 73) that were historically sprayed with herbicides and pesticides. In September 1997, The BCT concurred to change this subparcel from Category 7 to Category 3 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable insks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VDC levels exceeding MCLs. Site 73 is located throughout the MI for which the selected CERCLA remedy includes LUCs. This subparcel is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area where enhanced bioremediation is the selected CERCLA remedy. The MI ROD calls for remedial actions in the form of fluvial aquifer groundwater as well as LUCs to prevent use of fluvial aquifer groundwater and to prevent residential or daycare operations category 6 based on the remedial actions that which the selected CERCLA remedy includes the groundwater. Invisid aquifer groundwater as well as LUCs to prevent use of fluvial aquifer groundwater as well as LUCs to prevent use of fluvial aguifer groundwater for this subparcel from Category 3 to category 6 based on the remedial actions that will be addressed by the MI RD. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overfies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.

.

SUBPARCEL	LOCATION	APPROXIMATE			
LABEL"	(x, y coordinates)	SIZE (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
5.2(6)	28.7	د د	Building 274 and open land area surrounding Building 274 Site 48 (Former PCB Transformer Storage Area)	This subparcel is associated with Building 274, "J" Street Café, and the open land area surrounding the building. This subparcel is also associated with Site 48 (Former PCB Transformer Storage Area). Building 274 was constructed after transformer storage ceased. In 1997, surface soil samples were collected from the grassy areas directly outside of Building 274. Sample results indicated levels of PCBs and dieldrin exceeding BCT screening criteria. The DRC identified this subparcel as a high priority for reuse. In 1997, The BCT concurred to conduct a non-tume critical removal action at this subparcel and to change this subparcel to change this subparcel to a Calegory 6. The DPC concurred to change this subparcel to change this subparcel to a Calegory 6 to Category 4 believing no further remedial action was required. The MI RI Report indicated levels of several constituents subparcel from Category 6 to Category 4 believing no further remedial action was required. The MI RI Report indicated levels of several constituents subparcel from Category 6 to Category 4 believing no further remedial action was required. The MI RI Report indicated levels of several constituents subparcel from Category 6 to Category 4 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCL screening criteria that did not present unacceptable risk for for the subparcel from Category 6 to Category 4 believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCLs. Sile 48 is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area where enhanced bioremedial actions in the form of enhanced bioremediation of groundwater aveal action is the selected CERCLA remedy. The MI ROD calls for remedial actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or dato	Non-time critical removal action completed in 1998. Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of MI Notice of Land Use frestrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006
24.2(6)	11.6	66. 6	Open storage areas X02 and X03 Site 70 (POL, Various Chemical Leaks, railroad tracks 1,2,3,4,5 and 6) t Site 71 (Herbicides, all railroad tracks) a a	This subparcel is associated with open storage areas XO2 and XO3, which were sued for storage of POLs and flammable materials in 55-gallon drums until 1988. The areas then became steel storage areas and other gravel areas that were instorically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. The MI RI Report nictorically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. The MI RI Report not cated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but dud present unacceptable filts for residential reuse. The report also indicated that groundwater beneath is subparcel may contain VOC levels exceeding MCLs. Sites 70 and 71 and his subparcel are located in the area of the MI for which the selected CERCLA emedy includes LUCs. This subparcel also overlies the groundwater treatment is subparcel are located in the area of fluvial aquifer groundwater and this subparcel are located in the form of enhanced bioremediation of proundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and o change this subparcel from Category 7 to Category 6 based on the remedial ctions. Anticipate completing a FOST for this subparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs on further action required. LUCs implemented via LUCIP portion of 2004 MI RD and Use Restrictions in January 2005. This subparcel overfies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA emedy Construction of the MI RA completed and RA operations began in 2006.

883 176

75 of 102

January 2007

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

E

,

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP porton of 2004 MI RD and usubmission of MI Notice of Land Use Restrictions in Jarnuary 2005 This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy Construction of the MI RA completed and RA operations began in 2006.
BASIS°	This subparcel is associated with Site 34 (Building 770 Underground Oil Storage Tanks), Site 30 (Paint Spray Booth), Site 40 (Safety Keen Units) and Site 41 (Satellite Drum Accumulation Area) at Building 770 and T771. The EBS visual inspection noted that hazardous materials (antifreeze, paint, solvents, Safety Keen) and petroleum products were stored in Building 770. Three spills are documented from July 1990 through August 1993. The Spill Team responded, took appropriate action and disposed of all residues in accordance with federal, state and local regulations. Several tanks have been removed in July 1994; a 440- gallon diselt tank removed in July 1994; an 11,155-gallon fuel oil tank removed in July 1994; a 10,000-gallon fuel oil tank removed in July 1994; a 440- gallon gasoline tank removed in December 1989; and two 1,000-gallon used motor oil tanks removed in December 1989; and two 1,000-gallon used motor oil tanks removed in December 1989; and two 1,000-gallon used motor oil tanks removed in December 1989; and two 1,000-gallon used motor oil tanks removed in December 1989; Building 7771. The MI R I Report finspection noted oil staining on the floor drain. The EBS visual infocated levels of several constituents exceeding BCL Screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel are located in the area of the MI for which the selected CERCLA remedy includes LUCs. This subparcel overlies the groundwater beneath this subparcel are located in the area of the MI for which the selected creedy. The MI ROD calls for remedial actions in the form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from category 7 to category 6 based on the remedial actions. Anticipate completing a FOST for this subparcel in 2008.
FACILITY	Buildings 770 and 771, and open land area surrounding these buildings Site 34 (Building 770 Underground Oil Storage Tanks – removed in 1989) Site 30 (Paint Spray Booth) Site 40 (Safety Kleen Units) Site 41 (Satellite Drum Accumulation Area)
APPROXIMATE SIZE <sup>b</sup> (acres)	ອ. ຕ
LOCATION (x, y coordinates)	N. T
SUBPARCEL NUMBER AND LABEL	24 3(6)

883 177

76 of 102

January 2007

1

5

1

SUBPARCEL NUMBER AND LABEL	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>E</sup>	REMEDIATION/ MITIGATION
25.1(6)HS/HR demolished 2002	4.6	6.2	Building 873	This subparcel is associated with Building 873 Building 873 stored hazardous maternals such as chlorinated solvents, corrosives, petroleum, oils and lubricants. The DRC demolished Building 873 in 2002. The southerm end of the building and the gravel area east of the building were used as the hazardous maternals recoupment area (remove hazardous maternals from damaged containers then repackage the materials) until the current Recoup Building was maternals recoupment area (remove hazardous maternals from damaged containers then repackage the materials) until the current Recoup Building was maternals recoupment area (remove hazardous maternals from damaged containers then repackage the materials) until the current Recoup Building was forough November 29, 1993 and included tetrachforoethylene, sulfur acid, hydraudic fluid and descaling compound. The Spill Team responded, took the appropriate action and disposed of all residues in accordance with federal, state and local regulations. In September 1997, the BCT concurred to change this subparcel from Category 7 to Category 4 based on the cleanup of the spills and believing no further remedial action was required. The MI RI Report indicated the type of the present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel from Category 7 to Category 6 based on the cleanup of the spills and believing no further remedial action was required. The MI RI Report indicated that groundwater beneath this subparcel may contain VOC levels exceeding BCT screening criteria that did not present unacceptable risks for residential reuse. In ROD calls for remedial actions in the form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent testile form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent testile form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent testile f	Per MI ROD effective September 6, 2001, other than LUCs no further action required LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation where enhanced bioremediation where and RA completed and RA operations began in 2006.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

77 of 102

submission of MI Notice of Land removal at Site 27 completed in where enhanced bioremediation LUCs no further action required the groundwater treatment area submission of MI Notice of Land where enhanced bioremediation September 6, 2001, other than remedy. Construction of the MI LUCs no further action required the groundwater treatment area LUCs implemented via LUCIP September 6, 2001, other than remedy. Construction of the MI 2005. This subparcel overlies was selected as the CERCLA LUCs implemented via LUCIP Pre-RI activities included soil 2005. This subparcel overlies was selected as the CERCLA 1985. Per MI ROD effective Use Restrictions in January Use Restrictions in January portion of 2004 MI RD and portion of 2004 MI RD and operations began in 2006 **REMEDIATION/** operations began in 2006 MITIGATION RA completed and RA Per MI ROD effective RA completed and RA indicated levels of several constituents exceeding BCT screening cnteria that did form of enhanced bioremediation of groundwater as well as LUCs to prevent use Report indicated levels of several constituents exceeding BCT screening criteria railroad tracks (Sites 70 and 71) and gravel areas that were historically sprayed not present unacceptable risks for industrial reuse; therefore, no removal action This subparcel is associated with Building 875, the open land area surrounding selected as the CERCLA remedy. The MI ROD calls for remedial actions in the subparcel for potential removal action. In September 1997, the BCT concurred located throughout the MI, Site 27 and this subparcel are located in the area of the MI, for which the selected CERCLA remedy includes LUCs. This subparcel based on the remedial actions. Anticipate completing a FOST for this subparcel remedy includes LUCs. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy The MI occurred The report indicated the constituents did present unacceptable risks of fluvial aquifer groundwater, and to prevent residential or daycare operations groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and This subparcel is associated with the open land area surrounding Building 970. groundwater beneath this subparcel may contain VOC levels exceeding MCLs. to prevent residential or daycare operations reuse In 2002, the BCT concurred Sites 70 and 71 are located throughout the MI for which the selected CERCLA Buildings 873 and 875, and Site 27 (Former Recoupment Area, Building 873). The DRC demolished Building 875 in 2002. This subparcel also contains and ballasts were removed in 1999/2000. A 1,000-gallon heating oil tank was overlies the groundwater treatment area where enhanced bioremediation was to change this subparcel from Category 7 to Category 6 based on the remedial removal at Site 27 in 1985 as part of pre-RI activities. The PRE identified this This subparcel contains railroad tracks (Sites 70 and 71 and gravel areas that for residential reuse. The report also indicated that groundwater beneath this were historically sprayed with pesticides, herbicides and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. The MI RI with pesticides, herbicides and waste oil containing PCP. The railroad tracks closed in place in July 1994 outside Building 875. The Depot completed soil to change this subparcel from Category 7 to Category 6. The MI RI Report reuse In 2002, the BCT concurred that this subparcel remains Category 6 that did not present unacceptable risks for industnal reuse, but did present subparcel may contain VOC levels exceeding MCLs. Sites 70 and 71 are ROD calls for remedial actions in the form of enhanced bioremediation of unacceptable risks for residential reuse The report also indicated that actions. Anticipate completing a FOST for this subparcel in 2008. BASIS in 2008. Building 875 and Chemical Leaks, open land area Site 27 (Former 1,2,3,4,5 and 6) (Herbicides, all Open land area Chemical Leaks, Area, Building railroad tracks 1,2,3,4,5 and 6) Buildings 873 railroad tracks) surrounding Recoupment Site 70 (POL, surrounding Building 970 (Herbicides, all railroad tracks railroad tracks) Site 70 (POL, FACILITY and 875 Various Various Site 71 873) Site 71 APPROXIMATE SIZE (acres) 12.0 4.7 coordinates) LOCATION (X, Y 8,7 6'9 NUMBER AND SUBPARCEL LABEL. demolished 25.2(6) 26.1(6) 2002
P

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater freatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.
BASIS <sup>6</sup>	This subparcel is associated with Building 970. An oil-fired generator that had leaked oil onto the concrete pad was observed at Building 970, Section 6, during the EBS visual inspection. This release consisted of only petroleum products Absorbent was applied and the residue disposed in accordance with federal, state and local regulations. In October 1997, the BCT concurred to change this subparcel from Category 7 to Category 2 based on the cleanup of a petroleum product and believing no further remedial action was required. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industral reuse, but did present unacceptable risks for residential reuse. The MI RI Decated in the area of the MI for which the selected CERCLA remedy includes LUCs and it overfies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. The MI ROD calls for remedial actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 2 to Category 6 based on the remedial actions. Anticipate completing a FOST for this subparcel in 2008	This subparcel is associated with the open land area surrounding Building 972. This subparcel contains gravel areas that were historically sprayed with pesticides, herbicides and waste oil containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. This building is located risks for residential reuse. The RPOD calls for remediation this subparcel may contain VOC levels exceeding MCLs. This building is located it also overlies the groundwater treatment area where enhanced bioremediation is the selected CERCLA remedy. The MI ROD calls for remedial actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the remedial actions. Anticipate completing a FOST for this subparcel in 2008
FACILITY	Building 970	Open land area surrounding Building 972
APPROXIMATE SIZE <sup>b</sup> (acres)	6.3 .3	4
LOCATION (x, y coordinates)	6,4	9.
SUBPARCEL NUMBER AND LABEL	26.2(6)	27.1(6)

883 180

79 of 102

١,

January 2007

Ĵ

REMEDIATION/ MITIGATION	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January Use Restrictions in January 2005. This subparced overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.
BASIS <sup>c</sup>	This subparcel is associated with Building 972 and Site 84 (Flammables, Solvents, Waste Oil, etc., Building 972) The building once stored flammable materials, solvents and waste oil as an open shed building. Building 972 was converted to a closed building and stored and constructed wooden packing materials involving the use of petroleum products (oils and lubricants), paints and spray adhesives. Small operational spills occurred and were cleaned when they occurred. In addition, oil stained areas were observed in the building during they occurred. In addition, oil stained areas were observed in the building during they occurred. In addition, oil stained areas were observed in the building during the procurred. In addition, oil stained areas were observed in the building during the EBS visual inspection. The building recently had the floor cleaned and resealed, which removed the stains. In October 1997, the BCT concurred to change this subparcel from Category 7 to Category 4 based on the cleanup of operational spills and beleving no further remedial action was required. The MI R Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. Site 84 and Building 970 are located in the area of the MI for which the selected CERCLA remedy includes LUCs and overlies the groundwater reatment area where enhanced bioremediation was selected as the CERCLA remedy induced CERCLA remedy includes LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or dorane operations reuse In 2002, the BCT concurred to change this subparcel from Category 4 to Category 6 based on the remedial bioremedial of the subparcel from Category 4 to Category 6 based on the remedial to change this subparcel from Category 4 to Category 6 based on the remedial bioremedial actions areas in s	This subparcel contains the open storage area X04 north of Building 1089. This subparcel contains railroad tracks (Sites 70 and 71) that were historically sprayed with pesticides, herbicides, and waste oil containing PCP. The railroad tracks and ballasts were removed in 1999/2000. According to Depot personnel, this area was used for the storage of feed stock material and not hazardous this area was used for the storage of feed stock material and not hazardous materials in October 1997, the BCT concurred to change this subparcel from a Category 7 to a Category 3 believing no further remedial action was required the MI R Report indicated levels of several constituents exceeding BCT screening critena that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. Sites 70 and 71 are located throughout the MI for which the selected cERCLA remedy includes LUCs. This subparcel is in the area of the MI for which the selected as the CERCLA remedy includes LUCs and it overlies the groundwater freatment area where enhanced bioremediation was selected as the CERCLA remedy Top MI ROD calls for remedial actions in the form of enhanced bioremediation of groundwater as well as LUCs and it overlies the groundwater, and to prevent residential actions in the form of fluvial aquifer groundwater, and to prevent residential actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, a
FACILITY	Building 972 Site 84 (Flammables, Solvents, Waste oil, etc.)	Area X04 Site 70 (POL, Various Chemical Leaks, raulcoad tracks 1,2,3,4,5 and 6) Site 71 (Herbicides, all railroad tracks)
APPROXIMATE SIZE <sup>b</sup> (acres)	ç. G	6.0
LOCATION (x, y coordinates)	4 4	2,7
SUBPARCEL NUMBER AND LABEL	27.2(6)	28.1(6)

.

883 181

80 of 102

completed in 2000. Per MI ROD where enhanced bioremediation Non-time critical removal action submission of MI Notice of Land implemented via LUCIP portion of 2004 MI RD and submission LUCs no further action required. where enhanced bioremediation the groundwater treatment area remedy. Construction of the MI September 6, 2001, other than remedy Construction of the MI LUCs implemented via LUCIP was selected as the CERCLA Restrictions in January 2005. 2005. This subparcel overlies was selected as the CERCLA effective September 6, 2001 groundwater treatment area other than LUCs no further This subparcel overlies the Use Restrictions in January portion of 2004 MI RD and operations began in 2006. **REMEDIATION**/ of MI Notice of Land Use operations began in 2006. MITIGATION action required. LUCs RA completed and RA RA completed and RA Per MI ROD effective This subparcel is associated with Building 1089, the open land area surrounding ead, arsenic and chromium levels exceeding BCT screening cnteria. In October screening criteria that did not present unacceptable risks for industrial reuse, but including POLs and hazardous matenals. Records indicate that during the 1970s change it from Category 7 to Category 6. Building 1089 was decontaminated by vacuuming to remove free dust and pressure washing. The surface soil in areas calls for remedial actions in the form of enhanced bloremediation of groundwater This subparcel is associated with open storage areas X17, X19 and X21, and a removed in 1999/2000. The MI RI Report indicated levels of several constituents area of the MI for which the selected CERCLA remedy includes LUCs and it also levels exceeding MCLs. Sites 70 and 71 are located throughout the MI for which Category 6 based on the remedial actions. Anticipate completing a FOST for this store acids, paints and cleaning solvents. Surface soil sample results indicated 2000. The MI RI Report indicated levels of several constituents exceeding BCT where enhanced bioremediation is the selected CERCLA remedy. The MI ROD hazardous materials were recouped under a lean-to at the corner of 21st Street report also indicated that groundwater beneath this subparcel may contain VOC selected CERCLA remedy. The MI ROD calls for remedial actions in the form of 1997, the BCT concurred to conduct a removal action at this subparcel and to outside the southern end of the building were excavated to a depth of one foot reuse. In 2002, the BCT concurred to change this subparcel from Category 7 to herbicides and waste oil containing PCP The railroad tracks and ballasts were overlies the groundwater treatment area where enhanced bioremediation is the and E Street in the X21 area. This subparcel contains railroad tracks (Sites 70 MCLs. Site 89 is located in the area of the MI for which the selected CERCLA portion of X23 and X15. These areas were used to store a variety of materials and 71) and open storage areas that were historically sprayed with pesticides, Building 1089 and Site 89 (Acids, Building 1089). Building 1089 was used to and replaced with clean backfill. The excavated soil was disposed off-site as did present unacceptable risks for residential reuse. The report also indicated the selected CERCLA remedy includes LUCs. This subparcel is located in the as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred that this that groundwater beneath this subparcel may contain VOC levels exceeding industrial reuse, but did present unacceptable nsks for residential reuse. The special waste. The Depot completed this non-time critical removal action in exceeding BCT screening criteria that did not present unacceptable risks for fluvial aquifer groundwater, and to prevent residential or daycare operations remedy includes LUCs and it also overlies the groundwater treatment area enhanced bioremediation of groundwater as well as LUCs to prevent use of subparcel remains Category 6 based on the remedial actions. Anticipate completing a FOST for this subparcel in 2008. BASIS<sup>c</sup> subparcel in 2008 and surrounding open land area areas X17, X19 Chemical Leaks, Building 1089 Building 1089) Site 89 (Acids, 1,2,3,4,5 and 6) (Herbicides, all Open storage railroad tracks railroad tracks) Site 70 (POL FACILITY and X21 Various Site 71 APPROXIMATE SIZE acres) 6.31 23.7 coordinates) LOCATION (x, y 3,5 6,13 NUMBER AND LABEL<sup>4</sup> SUBPARCEL 28.2(6) 31.1(6)

81 of 102

,

Î

82 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

Ì

	(acres) 2.3	FACILITY Building 865 and surrounding open land area Site 28 (Recoupment Area. Building	<b>BASIS<sup>6</sup></b> This subparcel is associated wth Site 28 (Recoupment Area, Building 865) and the surrounding open land area. Building 865 was a handling area used to transfer hazardous substances/wastes or petroleum products/wastes from damaged or leaking containers into undamaged containers. A small fenced-in area is located on the southwest side of Building 865. The EBS visual inspection noted that this area contained various drums (5-, 10-, 15-, and 55-gallon) of old	REMEDIATION/ MITIGATION Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land
		865)	chemicals (oii, methy ethyl keione, and isopropanol), some with protruding rusting tops. This subparcel also includes gravel areas that were historically graved with pesticides, herbicides and waste oil containing PCP. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. Site 28 is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overlies the groundwater treatment area where and and extores in the selected CERCLA remedy. The MI ROD calls or remedial actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent his subparcel from Category 7 to Category 6 based on the remedial actions. Anticipate completion a Flor this subparcel in 2008.	Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.
·	0.02	Building 860	This subparcel is associated with Building 860. The DRC demolished this undiring in 2002. The MI RI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for madustrial reuse. The modustrial reuse, but did present unacceptable risk for residential reuse. The eport also indicated that groundwater beneath this subparcel contains VOC evels exceeding MCLs. This building is located in the area of the MI for which he selected CERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation is the selected "ERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation is the selected "ERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation is the selected "ERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation is the selected "ERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation is the selected "ERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation is the selected "ERCLA remedy includes LUCs and it also overlies the roundwater treatment area where enhanced bioremediation of groundwater as well as LUCs to prevent use of uvial aquifer groundwater and to prevent residential or daycare operations the selected in 2002 to change this subparcel from Category 1 to Category 6 ased on the remedial actions. Anticipate completing a FOST for this subparcel	Per MI ROD effective September 6, 2001, other than UUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of X004 MI ND and submission of X1 Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.

883 184

83 of 102

. .

January 2007

SIZE ° (acres)	FACILITY	A CISE	REMEDIATION/
0 25	Spill area west of Building 737 Site 44 (Former Wastewater Treatment Unit)	This subparcel is associated with the open land area outside Building 737 and Site 44 (Former Wastewater Treatment Unit). A 50-gallon mineral oil (<1 ppm PCB) spill was reported in1995 outside of Building 737. The Spill Team responded, excavated contaminated material and disposed of it in accordance with federal, excavated contaminated material and disposed of it in accordance Treatment Unit) was a temporary unit used to treat rainwater mixed with PCP- contaminated oil and mose waters from decontamination during the soil removal of the PCP dip vat system in 1985. The November 1996 Environmental Baseline Survey categorized this subparcel as a Category 4. In 1997 the ECP category definitions changed so that Category 4 was no longer appropriate for petroleum product releases. In December 1998, the BCT concurred Category 4 was not appropriate, as the release involved a petroleum product, and agreed to change the subparcel from Category 4 was no longer appropriate for petroleum product releases. In December 1998, the BCT concurred Category 4 was not appropriate, as the release involved a petroleum product, and agreed to change the subparcel from Category 4 to category 2 helewing no remedial action was required. The MR IR Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. Subsequent groundwater sampling data indicated the groundwater remedial action would not bresent unacceptable risk for reaction subparcel area fourther action is required for this site, however, Site 44 and this subparcel area of further action is required for this subparcel area of the BCT concurred to change this subparcel form Category 2 to category 6 based on the remedial actions. Anticipate completing a FOST for this	Mitter Luce Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and button of 2004 MI RD and button of 2004 MI RD and button of 2005. 2005.
		Site 44 (Former Wastewater Treatment Unit)	Site 44 (Former Wastewater Wastewater Treatment Unit) Treatment Unit Treatment Unit Treatment Unit Treatment Unit Treatment Unit Treatment Unit Treatment Unit Treatment Unit Treatment Unit Treatment Treatment I Treatment Treatment I Treatment Treatment I Treatment Treatment I Treatment Treatment I Treatment I Treatment Treatment I Treatment I T

883 185

84 of 102

January 2007

Į

Ĩ

(x, y coordinates)	APPRUXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION	
10,10	0.03	Building 863	This subparcel is associated with Building 863. The building contained a battery charging station. The DRC demolished this building in 2002. Material handling equipment (forklifts) was also stored in the building. The EBS visual inspection observed considerable oil stains on the concrete floor of Building 863. The BCT requested samples be taken from a nearby drainage point to determine if any eleases occurred from the building. Samples results indicated no levels requested samples be taken from a nearby drainage point to determine if any eleases occurred from the building. Samples results indicated no levels requested samples be taken from a nearby to category 3 believing no remedial action was required. The MI RI Report indicated levels of several constituents the subparcel from Category 7 to Category 3 believing no remedial action was required. The MI RI Report indicated levels of several constituents the stating the BCT screening criteria that did not present unacceptable risks for ndustrial reuse, but did present unacceptable risks for residential reuse. The eport also indicated that groundwater beneath this subparcel may contain VOC evels exceeding MCLs. This building is located in the area of the MI for which the selected CERCLA remedy includes LUCs and it also overhea the proundwater treatment area where enhanced bioremediation is the selected threatment treatment area when as LUCs to prevent use of luvial aquifer groundwater, and to prevent residential or daycare operations category 6 based on the remedial actions. Anticipate completing a FOST for this ubparcel in 2008.	Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overhes the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.	

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

WINDER ADD UNDER:         Stats Confirmed         FACILITY FACILITY         BASIS         BASIS         BASIS         EXERCIMATION FOR TRANSPORT         EXERCIMATION FOR TRANSPORT         EXE	SUBPARCEL	LOCATION	APPROXIMATE			
33(4)       2.14       2611       Open storage (wax, x0) and x0, x10, and x0, x10, and x0, x10, and x0 and x0, x10, x00, x00, x00, x00, x00, x00,	LABEL	(x, y coordinates)	SIZE (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
Biol on 663         Constrained Solution Solutio Solution Solution Sol	33.9(6)	12,14	26.91	Open storage	This subparcel is associated with open storage areas X05, X06, X07, X08, X09.	During pre-RI activities in 1985.
Constraint         Constra	860 and 863			areas X05, X06, Vo7 V10 214	X10 and X11; Building 737; and the open land area surrounding Buildings 737,	the PCP dip vat, underground
T/37, and bit     Constrained (F)     C	demolished			X11, Building	oou aiiu ooo. Tite UKU demoiisned buliqings 860 and 863 in 2002. This Subbarcel is associated with Site 42 (Former Pentachloronhenol (PCP) Nin Vat	storage tank, associated piping
Open faird area         Contaminated Soil Signing Area         TeCP optomethion greater hundings 77, and soft of Net. Solard Soil Ohun Strage Area) In 1955, the PCP dp viet, the Solard Soil and So	7007			737, and the	Area), Site 43 (Former Underground PCP Tank Area), Site 45 (Former	to a depth of 10 feet. Soil with
<ul> <li>Buddings 137, Undergrund Storge and Mass Concentrational Program of Impacts of premarked ana part mackade sol were removed to be remarked and were solved mark associated ping and impacted sol were removed to be remarked to be premarked and were solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and impact of solved premarked solved mark associated ping and presson to be and provided at a provide were piloted provide solved mark associated ping and impact of solved premarked solved mark associated ping and presson to be and provided at a piloted pilot presson to be and pilot presson the and pilot presson the and pilot presson be and pilot presson be and piloted and pilot presson be and pilot pilot pilot pilot pilot pilot pil</li></ul>				open land area	Contaminated Soil Staging Area, Site 46 (Pallet Drying Area) and Site 47	PCP concentrations greater
860 and 650.       360 and 650.         860 and 650.       200 (commendence provides and wate of the 20 (commendence provides and wate of the 20 (commendence).       200 (contracted escilication)         860 and 650.       201 (commendence).       200 (commendence).       200 (commendence).       200 (commendence).         860 and 650.       201 (commendence).       201 (commendence).       201 (commendence).       201 (commendence).       201 (commendence).         860 and 71 (commendence).       201 (commendence). <td< td=""><td></td><td></td><td></td><td>Buildings 737</td><td>(Former Contaminated Soil Drum Storage Area) In 1985, the PCP dip vat,</td><td>than 200 ppb remained beneath</td></td<>				Buildings 737	(Former Contaminated Soil Drum Storage Area) In 1985, the PCP dip vat,	than 200 ppb remained beneath
Ste 42 (Forme Ste 42 (Forme Paraditriorber Paraditriorber Area) Ste 42 (Forme Paraditriorber Paraditriorber Paraditriorber Paraditriorber Ste 43 (Forme Paraditriorber Ste 45 (Forme Paraditriorber Ste 45 (Forme Paraditriorber Paraditriorber Ste 45 (Forme Paraditriorber Paraditriorber Ste 45 (Forme Paraditriorber Ste 45 (Forme Paraditriorber Paraditriorber Ste 45 (Forme Paraditriorber Ste 45 (Forme Paraditriorber Paraditriorber Ste 45 (Forme Paraditriorber Ste 45 (Forme Paraditriorber Paraditriorber Ste 45 (Forme Paraditriorber Paraditriorber Paraditriorber Paraditriorber Paraditriorber Ste 45 (Forme Paraditriorber Paradi				860 and 863	a depth of 10 feet. Soil with PCP concentrations greater than 200 pob remained	t the excavated area. Per MI ROD effective Sentember 6
Prenachtoryner       Part 71, Open Storge areas and great areas hand even textorically sprayed with the historical area for great areas hand predicteds: an enholder areas of 2004 Min Moles of Land Use Stordes. Area         Read       (PCP) Div Value and VAL open Storge areas and great areas in the historical area (Ster 2)         Ster 43 (Former Printed Former PCD and pressed areas (Ster 2)       (PCP) Div Value and beliefs are adjacent adjacent adjacent adjacent adjacent adjacent product storge and belief product and belief			_	Site 42 (Former	beneath the excavated area. This subparcel contains railroad tracks (Sites 70	2001, other than LUCs no
<ul> <li>a) (PCD) (D) vial intervent in 1996, Hazardous subtracted and states and hardware in 1996, Hazardous subtracted and states and hardware intervent in 1996, Hazardous subtracted and states and hardware intervent in 1996, Hazardous subtracted as containing PCA that was intervent in 1996, Hazardous subtracted as for the approximated as the reground in 1996, Hazardous subtracted as for the approximation interred in topen storage areas X06, X07, X10, X11 and X12, K11 and X12, K14 and X14 and</li></ul>				Pentachiorophen	and 71), open storage areas and gravel areas that were historically sprayed with	further action required LUCs
Area         Area           Stile 43; (Free allocation strange area instances and petroleum products were a transmorted in 1982-2000. This subpared also contained a 200. Stile 43; (Free allocation years) and balasts were an instance and a green (III buildiny 75 and X1). Stile 43; (Free allocation years) and balasts were an instance and a green (III buildiny 75 and X1). Stile 43; (Free allocation years) and balasts were an instance and a green (III buildiny 75 and X1). Stile 44; (Free allocation years) and balasts were an instance and a green (III buildiny 75 and X1). Stile 44; (Free allocation years) and balasts were an instance and a green (III buildiny 75 and X1). Stile 44; (Free allocation years) and balasts were an instance and a green (IIII buildiny 75 and X1). Still year at a source and a green (IIII buildiny 75 and X1). Still years at a source and a green (III buildiny 75 and X1). Still years at a source and a green (IIII buildiny 75 and X1). Still years at a source and a green (IIII buildiny 75 and X1). Still years at a source and a green (IIII buildiny 75 and X1). Still years at a source and a green (IIII buildiny 75 and				ol (PCP) Dip Vat	Pesticides, herbicides and waste oil containing PCP and grassed areas (Site 73)	implemented via LUCIP portion
Site 45 (Former gallon gastine underground storage tank adjacent to Building 754 that was publicing underground storage tank adjacent to Building 754 that was public ground storage tank Area building 754 that was been proprieted and propertional storage tank Area building 754 that was building the Area buil				Area)	and were misionically sprayed with pesiticines and nerorides. The railroad tracks and ballasts were removed in 1999/2000. This subnarrel also contained a 200-	of 2004 MI KU and submission
PUnderground PUnderground Contaminated State 45 (Framk Areas)     Premoved in 1986. Hazardous substances and perroleum products were stored in open storage areas X07, X10, X11 and X12, Contaminated State 46 (Paint Areas)       State 46 (Paint Contaminated State 46 (Paint Areas)     Transformes containing mineral oil (non-PCB and PCB containing) were also stored in open storage areas X07, Leaking 55-gallon drum, which responded, areaterin approximative were respectively 55, 52 allon drum, which responded, areatering framed of an estorage areas X07, Leaking 55-gallon drum, which responded, areatering framed of an estorage areas X07, Leaking 55-gallon drum which responded, areatering framed were approximative were respectively areatering framed actions and dsposed of all resistors with respondent and stored would not be implemented at this subparced in the area of the MI (monch his subparced in the conditions to storage provides) stile 77 (Pomme Storage Areas)       Ster 70 (POL, Variantia RC, State 70 (POL, State 70 (POL, S				Site 43 (Former	gallon gasoline underground storage tank adjacent to Building 754 that was	Restrictions in January 2005.
PCP Tark Area Transformers containing mereral oil non-PCB and PCB containing were also contaminated contaminated contaminated soil Staging Heal) Transformers containing mineral oil non-PCB and PCB containing were also contaminated byring Area) Ste 46 (pailet Transformated Dyring Area) Ste 47 (Former Ste 77 (A resolution the stelected Contaminated Ste 71 Articipate completing a FOST for this subparcel in 2008. Articipate completing a FOST for this subparcel in 2008. Ste 73 (A 4 Articipate completing a FOST for this subparcel in 2008. Articipate completing a FOST for this subparcel in 2008. Articipate completing a FOST for this subparcel in 2008. Ste 73 (A 4 Articipate completing a FOST for this subparcel in 2008. Articipate completing a FOST for this subparcel in 2008. Articip				Underground	removed in 1986. Hazardous substances and petroleum products were	
Site 45 (Former Site 45 (Former Area) Contaminated Soli Staging Area) Site 45 (Former Soli Staging Area) Site 47 (Former Area) Site 47 (Former Area) Site 47 (Former Area) Site 47 (Former Area) Site 47 (Former Area) Site 47 (Former Area) Site 47 (Former Daying Area) Site 77 (Former Area) Site 71 (Former Daying Area) Site 71 (Former Da				PCP Tank Area)	Instorically stored in open storage areas X05, X06, X07, X10, X11 and X12.	
Contaminated actions and disposed of a micromatic waren reported by spin durins accordanced, lost Slaging Area) Area) Site 46 (Pallet Risks for industria reuse, but ld present unacceptable reuse, but ld present unacceptable reuse, but large Area) further action is actained throughout the MI and this subparcel in accel solid Dum Storage Area) Stile 70, Chemical Leaks, for and 73 are located throughout the MI and this subparcel is located at throuse related cERCLA remedy for action for selected contentions in the radion is subparcel in 2003, the BCT concurred to change related at 23, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3				Site 45 (Former	stored in open storane area X07.1 eaking 55-callon do me of athur	
Soi Stagring Area) Area) Soi Stagring Area) Site 46 (Pail Dyring Area) Site 47 (Former Dyring Area) Site 47 (Former Site 47 (Former Site 77 (For				Contaminated	acetate/naphtha aromatic were reported to the Spill team. which responded	
Area)Federal state and local regulations. The MI R (Report indicated levels of several ronstituents exceeding BCT screening critera that dno present unacceptable insks for industrial reuse. Dut did present unacceptable risks for reademinal reuse. The report and and present unacceptable reuse. The report solicated that groundwater beneath this subparcel may contain Solic Drum Soli Drum				Soil Staging	took the appropriate actions and disposed of all residues in accordance with	
Site 46 (Pallet Dying Area) Site 46 (Pallet Dying Area) Site 47 (Former Dying Area) Site 47 (Former Dying Area) Site 47 (Former Dying Area) The report also indicated that groundwater breach this subparcel respondent of the mile action the miletanetic at this subparcel Soli Dhum Soli Dhum Soli Dhum Soli Dhum Soli Dhum Stee 70, 71 and 73 are located throughout the Miletanetic at this subparcel Soli Dhum Stee 70, 71 and 73 are located throughout the Miletanetic at this subparcel Stee 70, 71 and 73 are located throughout the Miletanetic at this subparcel Stee 70, 71 and 73 are located throughout the Miletanetic at this subparcel Stee 70, 71 and 73 are located throughout the Miletanetic at this subparcel Stee 70, 71 and 73 are located throughout the Miletanetic at this subparcel Stee 70, 71 and 73 are located throughout the Miletanetic stees (Chemical Leaks, form of LUCs to prevent use of fluvial aquife groundwater, and to prevent railroad tracks) Stee 71 (Herbicides, all railroad tracks) Ste 73 (2, 4, 5 and 5) this subparcel from Category 7 to Category 6 based on the remedial actions in the railroad tracks) Ste 73 (2, 4 dichlorophenoxy acetic acid, all grassed areas)				Area)	federal, state and local regulations. The MI RI Report indicated levels of several	
Drying Area Drying Area Drying Area Drying Area Stle 47 (Former Soli Drum Soli Drum Soli Drum Stee 47 (Former Contaminated Soli Drum Stee 70, 71 and 73 are located throughout the Mi as subparcel may contain Sites 70, 71 and 73 are located throughout the Mi and this subparcel is located in the area of the MI for which the selected CERCLA remedy includes LUCs No further action is required for Sites 22, 43, 45, 46 and 47; however, these sites and this subparcel are located in the area of the MI RO the MI for which the selected certical tacks traincad tracks file 71 (Herbiddes, all site 73 (2, 4 dichlorophenoxy action and areas) Site 73 (2, 4 dichlorophenoxy action and areas) Site 73 (2, 4 dichlorophenoxy action and selected from Category 7 to Category 6 based on the remedial actions Anticipate completing a FOST for this subparcel in 2008.				Site 46 (Pallet	constituents exceeding BC1 screening criteria that did not present unacceptable	
Site 47 (Former Contaminated Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Solution Site 70 (FOL. Site 70 (FOL. Site 70 (FOL. Various Site 70 (FOL. Various CERCIA remedy includes LUCs. The MI for which the selected further action is required for Sites 42, 43, 45, 46 and 47; however, these sites in the areas of the MI for which the selected further action is required for Sites 42, 43, 45, 46 and 47; however, these sites in the areas of the MI for which the selected further action is required for Sites 42, 43, 45, 46 and 47; however, these sites in the areas of the MI for which the selected further action is required for Sites 42, 43, 45, 46 and 47; however, these sites in the areas of the MI for which the selected further action is required for Sites 42, 43, 45, 46 and 47; however, these sites form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent trailioad tracks Site 71 (Herbicides, all railroad tracks) Site 73 (2,4 dichlorophenoxy acctic acid, all grassed areas)				Drying Area)	The report also indicated that oroundwater beneath this subnarrel may contain.	
Contaminated the groundwater remedial action would not be implemented at this subparcel. Soil Drum Sites 70, 71 and 73 are located throughout the MI and this subparcel is located Storage Area) butther action is required for Sites 42, 43, 46 and 77, howwer, these sites and this subparcel are located in the area of the MI for which the selected Various CERCLA remedy includes LUCs. The MI ROD calls for remedial actions in the railroad tracks from of LUCs to prevent use of fundal aquifer groundwater, and to prevent railroad tracks lestedential or daycare operations reuse in 2008. Site 71 (Herbicides, all railroad tracks) and Site area of this subparcel in 2008. Site 73 (2,4 dichtorophenoxy acetic acid, all grassed areas)				Site 47 (Former	VOC levels exceeding MCLs. Subsequent groundwater sampling data indicated	
Soil Drum Storage Area) Storage Area) Storage Area Storage Area Storage Area Storage Area Storage Area Storage Area Strand CPCLA remedy includes LUCs No further action is required for Sites 4.45 and 4.7 howver, these sites Various CERCLA remedy includes LUCs. The MI ROD calls for remedial actions in the railroad tracks (for of daycare operations reuse in 2002, the BC concurred to change 1,2,3,4,5 and 6) this subparcel from Category 7 to Category 6 based on the remedial actions Site 7,1 (Herbicides, all railroad tracks) Site 73 (2,4 dichorophenory acetic acid all grassed areas)				Contaminated	the groundwater remedial action would not be implemented at this subparcel.	
Storage Area)       In the area of the Mi for which the selected CERCLA remedy includes LUCs No         Site 70 (POL, various       Various         Various       CERCLA remedy includes LUCs. The MI ROD calls for remedial actions in the selected trading to tay and this subparcel are located in the area of fluvial aquifer groundwater, and to prevent railroad tracks         Remean constrained tracks       form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent railroad tracks         Rite 71       Anticipate completing a FOST for this subparcel in 2008.         Site 73       Anticipate completing a FOST for this subparcel in 2008.         Site 73       Site 73         Site 73       Anticipate completing a FOST for this subparcel in 2008.         Site 73       Anticipate completing a FOST for this subparcel in 2008.         Site 73       Anticipate completing a FOST for this subparcel in 2008.				Soil Drum	Sites 70, 71 and 73 are located throughout the MI and this subparcel is located	
Site 70 (POL, and this subparce not outset st. 45, 40, and 47, nowever, these sites         Various       CFRCLA remedy includes Lucs. The MI ROD called a ctions in the calculated racks, form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent trailroad tracks         1,2,3,4,5 and 6)       this subparcel from Category 7 to Category 6 based on the remedial actions in the railroad tracks.         Site 71       (Herbicides, all railroad tracks)         Site 73       Site 74         dichlorophenoxy accel actions       FOST for this subparcel in 2008.         Site 73       Anticipate completing a FOST for this subparcel in 2008.         Site 73       Site 73         grassed areas)       Site 73			. <u> </u>	Storage Area)	In the area of the MI for which the selected CERCLA remedy includes LUCs No	
Various     CERCLA remedy includes LUCs. The MI ROD calls for remedial actions in the railroad tracks.       Chemical Leaks, form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent railroad tracks.     form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent area in 2002, the BCT concurred to change 1,2,3,4,5 and 6)       Tailroad tracks     fins subparcel from Category 7 to Category 6 based on the remedial actions Site 71       (Herbicides, all railroad tracks)     Anticipate completing a FOST for this subparcel in 2008.       Site 73 (2,4 dichlorophenoxy accelication)     Site 70 (addition of actions area)       Site 73 (2,4 dichlorophenoxy action category actions)     Site 70 (addition of actions)				Site 70 (POL,	initiate action is required for Sues 44, 45, 45, 45, 40 and 47, nowever, mese sites and this subbarcel are located in the area of the MI for which the selected	
Chemical Leaks, form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent railroad tracks residential or daycare operations reuse in 2002, the BCT concurred to change 1,2,3,4,5 and 6) this subparcel from Category 7 to Category 6 based on the remedial actions Site 71 Anticipate completing a FOST for this subparcel in 2008. Site 73 (2,4 dichlorrophenoxy acetic acid, all grassed areas)				Various	CERCLA remedy includes LUCs. The MI ROD calls for remedial actions in the	
railroad tracks       residential or daycare operations reuse in 2002, the BCT concurred to change         1,2,3,4,5 and 6)       this subparcel from Category 7 to Category 6 based on the remedial actions         Site 71       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.         Site 73 (2,4       Anticipate completing a FOST for this subparcel in 2008.				Chemical Leaks,	form of LUCs to prevent use of fluvial aquifer groundwater, and to prevent	
Site 71     Anticipate completing a FOST for this subparcel in 2008.       (Herbicides, all railroad tracks)     Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)				1,2,3,4,5 and 6)	residential or daycare operations reuse In 2002, the BCT concurred to change this subbarcel from Category 7 to Category 6 based on the remedial actions	
(Herbicides, all railroad tracks) Site 73 (2,4 dichroroxy actior ordy, all grassed areas)			- <u></u>	Site 71	Anticipate completing a FOST for this subparcel in 2008.	
Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)				(Herbicides, all		
Site 73 (2,4 dichlorophenoxy acetic acid, all grassed areas)						
dicriforophenoxy acetic acid, all grassed areas)				Site 73 (2,4		
grassed areas)			_	dichlorophenoxy		
				acelic acio, all orassed areas)		

.

883 187

86 of 102

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>5</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
35.2(6) demolished 2000	3,5	0.43	Building 1084 and open land area surrounding this building Site 29 (Former Underground Waste Oil Storage Tank) Storage Tank)	This subparcel is associated with Site 88, an old concrete grease rack and storage area for POLs at Building 1085 (removed 2000); Site 29, a UST associated with the grease rack (removed 1988); Site 87 (Building 1084, removed 2000), in the past used for storage of DDT and other pesticides, and the open land area surrounding these buildings. This subparcel contains gravel areas that were sprayed with herbicides, pesticides and waste oil containing PCP. Samples were collected from the gravel areas and results indicated levels of metals and PAHs at levels exceeding BCT screening criteria. In February 1999, the BCT concurred to change this subparcel from Category 6 and proceed through the removal action process. The Depot completed the corncrete slab and hydraulitic lift associated with Site 88 in August 2000. The MI RI Report indicated levels of several constituents exceeding BCT screening correcte slab and hydraulitic lift associated with Site 88 in August 2000. The MI RI Report indicated levels of several constituents exceeding BCT screening proundwater beneath this subparcel may contain VOC levels exceeding MCLs. Sites 29, 87 and 88 as well as this subparcel are located in the area of the MI for which the selected Groundwater treatment will address releases from Sites 29. R7 and 88 as well as this subparcel are located in the area of the MI for which the selected Groundwater treatment will address releases from Site 29. The MI ROD calls for remedial actions in the form of enhanced pioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer forundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred that this subparcel remains Category 6 based on the groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred that this subparcel remains CAtegory 6 based on the groundwater fraiting a FOST for this subparcel in 2008.	Non-time critical removal action completed in 2000. Per MI ROD effective September 6, 2001, LUCs apply to this subparcel and Sites 87 and 88. The selected groundwater treatment of enhanced bioremediation will address releases from Site 29. LUCs implemented via LUCIP portion of 2004 MI RD and usubmission of MI Notice of Land Use Restrictions in January 2005. This subparcel overles the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy Construction of the MI RA completed and RA operations began in 2006

<sup>883</sup> 188

87 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

ľ

SUBPARCEL NUMBER AND LABEL <sup>®</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
35.3(6)	S.E	0.22	Building 1086 Site 30 (Paint Spray Booths)	This subparcel is associated with Building 1086 that contains a spray paint booth and stored hazardous materials from 1959 through 1983/1984. This building also contains a sump This subparcel is associated with Site 30 (Paint Spray Booths). Samples were collected from the sump, and results indicated levels of metals and naphthalene. The BCT determined that the sump should be cleaned during removal actions at the surrounding parcels. In February 1999, the BCT concurred to change this subparcel from Category 7 to Category 6 and proceed through the removal action process. The Depot completed the removal action in August 2000. The MRI Report indicated levels of several constituents exceeding BCT screening criteria that did not present unacceptable risks for resolution in August 2000. The MI for which the selected CERCLA industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel may contain VOC levels exceeding MCLs. No further action required for Site 30, however, this subparcel is located in the area of the MI for which the selected CERCLA industrial reuse LUCs and it also overlies the groundwater treatment area where enhanced bioremediation is the selected CERCLA remedy. The MI ROD calls for remedial actions in the form of enhanced bioremediation of groundwater as well as LUCs to prevent use of fluvial aquifer groundwater, and to prevent residential or daycare operations reuse. In 2002, the BCT concurred that this subparcel remains Category 6 based on the remedial actions. Antrcipate completing a FOST for this subparcel in 2008.	Non-time critical removal action completed in 2000. Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of 2004 MI RD and submission of 2004 MI RD and submission of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy. Construction of the MI RA completed and RA operations began in 2006.

•

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

I

REMEDIATION/ MITIGATION	Non-time critical removal action completed in 2000. Per MI ROD effective September 6, 2001, other than LUCs no further action required. LUCs implemented via LUCIP portion of MI Notice of Land Use Restrictions in January 2005. This subparcel overlies the groundwater treatment area where enhanced bioremediation was selected as the CERCLA remedy Construction of the MI RA completed and RA operations began in 2006.
BASIS <sup>6</sup>	This subparcel is associated with Site 31 (Former Spray Paint Booth in Building 1087) which was used for major stock primer and enamel spray painting operations, and Site 33 (Sandblasting Waste Drum Storage) which consists of an open-sided, metal roof shed with a gravel floor south of Building 1088 and was historically used to store 55-gallon drums containing spent sandblasting was historically used to store 55-gallon drums containing spent sandblasting was historically used to store 55-gallon drums containing spent sandblasting was historically used to store 55-gallon drums containing spent sandblasting was historically used to store 55-gallon drums containing spent sandblasting with herbicdes and pesticides. Surface soil samples results indicated levels of PAHs, pesticides and metals exceeding BCT screening criteria. At the February 1999 methin, the BCT concurred that this subparcel should change from Category 7 to Category 6 and proceed through the removal action process. Building 1087 was decontaminated by vacuuming to remove free dust and pressure washing The surface soil outside Buildings 1087 and 1088 was secwarted to a depth of one foot and replaced with clean backfill. The excavated pressure washing The surface soil outside Buildings 1087 was decontaminated by vacuuming to removal action process. Building 1087 was decontaminated by vacuuming to removal action mocess. Building 1087 was decontaminated by vacuuming to removal action mocess. Building 1087 was decontaminated by vacuuming to removal action mocess. Building 1087 was decontaminated by vacuuming to removal action mocess. Building 1087 was decontaminated by vacuuming to removal action mocess. Building 1087 was decontaminated by vacuuming to removal action mocess. Building 1087 was decontaminated by vacuuming to removal action mocess and present unacceptable risks for industral reuse, but did present unacceptable risks for rendering the surface as unbarcel are located in the acteo for the selected CERCLA remedy. The MCD calls for removal action i
FACILITY	Building 1087, former sandblast waste drum storage area and the surrounding open land area Site 31 (Former Spray Paint Booth, Building 1087) Site 33 (Sandblasting Waste Drum Storage Area shed south of Building 1088)
APPROXIMATE SIZE <sup>b</sup> (acres)	4 Q
LOCATION (x, y coordinates)	ო ო
SUBPARCEL NUMBER AND LABEL	35.4(6)

883 190

89 of 102

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

completed in 2000. Per MI ROD selected as part of the CERCLA where enhanced bioremediation site This subparcel overlies the Non-time critical removal action implemented via LUCIP portion of 2004 MI RD and submission remedy. Construction of the MI Per DF ROD effective April 12, was selected as the CERCLA effective September 6, 2001, Restrictions in January 2005. further action required at this groundwater treatment area subsurface soil remediation This subparcel overlies the other than LUCs no further operations began in 2006. 2004, other than LUCs no area where SVE/ZVI was of MI Notice of Land Use **REMEDIATION/** MITIGATION RA completed and RA action required. LUCs remedy Area), Buildings 1088 and 1091 as well as the open land area surrounding these buildings but not included in existing subparcels. Sample results associated with screening criteria In October 1997, the BCT concurred to change this subparcel from Category 7 to Category 6 and proceed through the removal action process. required at Site 32, however the site and this subparcel area located in the area RD indicate no further action is required for this site; however, it is located in the part of the CERCLA remedy Anticipate completing a FOST for this subparcel in selected CERCLA remedy. The MI ROD calls for remedial actions in the form of exceeding MCLs and that burial sites within the Disposal Area are not suited for based on the remedial actions Anticipate completing a FOST for this subparcel overlies the groundwater treatment area where enhanced bioremediation is the Site 32 indicated levels of chromium, lead, arsenic, and PAHs exceeding BCT reuse, but did present unacceptable risks for residential reuse. The report also nsks for residential reuse. The report also indicated that groundwater beneath BCT concurred to change this subparcel from Category 7 to Category 6 based overlies the subsurface soil remediation area where SVE/ZVI was selected as constituents exceeding BCT screening criteria (including VOCs in subsurface This subparcel is associated with Site 2 (Ammonia Hydroxide and Acetic Acid Bunal Site) where a seven-pound jug of ammonia hydroxide and a one-gallon utility workers because of possible disturbance of buned wastes. In 2002, the DF disposal area where the selected CERCLA remedy includes LUCs. And it on the anticipated need for remedial actions. DF ROD and DF Disposal Sites This subparcel is associated with Site 32 (Sandblasting Waste Accumulation present unacceptable risks for industrial reuse, but did present unacceptable soil impacting indoor air) that did not present unacceptable risks for industrial depth of one foot and replaced with clean backfill. The Depot completed the non-time critical removal action in August 2000. The MI RI Report indicated fluvial aquifer groundwater, and to prevent residential or daycare operations pressure washing. The surface soil outside the building was excavated to a of the MI for which the selected CERCLA remedy includes LUCs and it also enhanced bioremediation of groundwater as well as LUCs to prevent use of this subparcel may contain VOC levels exceeding MCLs. No further action Building 1088 was decontaminated by vacuuming to remove free dust and levels of several constituents exceeding BCT screening criteria that did not reuse. In 2002, the BCT concurred that this subparcel remains Category 6 indicated that groundwater beneath this subparcel contains VOC levels bottle of acetic acid were burred The DF RI Report indicated several BASIS<sup>°</sup> in 2008. 2010. Site 2 (Ammonia open land area Buildings 1088 Hydroxide and and 1091 and (Sandblasting Accumulation surrounding extending to Perry Road Acetic Acid Burial Site) FACILITY Site 32 Waste Area) Ь APPROXIMATE SIZE b (acres) <0.01 4.0 (x, y coordinates) LOCATION 30,9 2,2 NUMBER AND SUBPARCEL LABEL<sup>®</sup> 35.5(6) 36.1(6)

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

90 of 102

J

SUBPARCEL NUMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
36 2(6)	6. 00	0.01	DF Site 3 (Mixed Chemical Bunal Site, ortho- tolidine dihydro- chloride, 1955)	This subparcel is associated with Site 3 (Mixed Chemical Burial Site) where 3,000 quarts of unknown chemicals and five cubic feet of ortho-tolidine dihydrochloride were burned in 1955. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable nsks for residential reuse. The report also indicated that groundwater beneath this subparcel contians VOC levels entity workers because of possible disturbance of burned wastes in 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. DF ROD and DF Disposal Sites RD indicated and it overlies the subsurface soil remediation area where includes LUCs and it overlies the subsurfaces soil remediation area where includes LUCs and it overlies the subsurfaces of the selected CERCLA remedy includes LUCs and it overlies the subsurfaces soil remediation area where includes LUCs and it overlies the subsurfaces soil remediation area where includes LUCs and it overlies the subsurface soil remediation area where ortho-tolidine. Excavation was completed in 2006, and USEPA approved the Disposal Sites RACR on August 25, 2006. Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD excavation, transportation and disposal as well as LUCs required at this site. Excavation began in March 2005 and was completed in 2006. USEPA approved the Disposal Sites RACR on August 25, 2006 This subparcel overfies the subbarrace soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.
36.3(6)	9 <sup>0</sup> 0	0.02	DF Site 4 (POL Burial Site, thriteen 55-gallon drums of oil, grease and paint) Site 90 (SWMU 4 1/ POL Burial Site, thirty-two 55-gallon drums of oil, grease and thinner)	This subparcel is associated with Site 4 (POL Burial Site, thirteen 55-gallon drums of oil, grease and paint) and Site 90 (SWMU 4.1/ POL Burial Site, thirty- two 55-gallon drums of oil, grease and thinner). Materials were buried in two adjacent trenches. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable nsks for industrial reuse, but did present agroundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of burned wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. DF ROD and DF Disposal Sites RD indicate excavation, transportation and disposal of Site 4. SVE, ZVI and PRB are required to address releases from Sites and and of Site 4. SVI. 4.1). This site also LUCs. Excavation at Site 4 completed in April 2005. USEPA approved the Disposal Sites RACR on August 25, 2006. Two RDs are being prepared to disposal Sites RD and Off-Depot Groundwater RD. Dunn field RDI and ZVI PRB Implementation Study completed in 2006. Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Siles RD excavation, transportation and disposal of Site 4, SVE, ZVI and PRB as well as LUCs required at these sites. Excavation completed in April 2005. USEPA approved the Disposal Sites RACR on August 25, 2006 Source Areas (SVEIZVI) RD to be completed and RA to begin in 2007. Issues regarding Off Depot Groundwater RD off Depot Groundwater RD final document.

883 192

-

SUBPARCEL NUMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
36.4(6)	6'06	60.0 <del>5</del>	DF Site 5 (Methyl Bromide Buriat Site A, 3 cubic feet, 1955)	This subparcel is associated with Site 5 (Methyl Bromide Burial Site) where three cubic feet of methyl bromide were buried. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of burned wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. DF ROD and DF Disposal Sites RD indicate no further action is required for this site, however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs and it overfies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.
36 5(6)	80° 80°	<0.01	DF Site 7 (Nitric Acid Burial Site, 1954)	This subparcel is associated with Site 7 (Nitric Acid Burnal Site) where 1,700 quart bottles of nitric acid were buried. The DF R1 Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based BCT concurred to change this subparcel from Category 7 to Category 6 based not categories the autoricpated need for remedial actions DF ROD and Disposal Sites RD on dicate no further action is required for this site, however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.
36.6(6)	30.8	<0.01	DF Site 8 (Methyl Bromide Bunal Site B, 1954)	This subparcel is associated with Site 8 (Methyl Bromide Bural Site) where 3,768 one-gallon cans of methyl bromide were buried to a depth of 7 feet. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Disposal Area are not suited on the anticipated need for remedial actions DF ROD and Disposal Sites RD indicate no further action is required for this site: however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.
Defense Disti Rev. 1 BRAC Cle	ribution Cen	iter (Memphis)		January 2007	92 of 102

1

Í

REMEDIATION/ MITIGATION	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. Releases from this unit will be addressed by SVE, ZVI and PRB. Source Areas RD to be completed and RA to begin in 2007. Issues regarding Off Depot Groundwater RD (PRB) may result in delay of final document.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at these sites Releases from Site 12 will be addressed by SVE, ZVI and PRB Source Areas RD to be completed and RA to begin in 2007. Issues regarding Off Depot Groundwater RD (PRB) may result in delay of final document.
BASIS <sup>6</sup>	This subparcel is associated with Site 11 (Trichloroacetic Acid Burial Site) where 1,433 one-ounce bottles of trichloroacetic acid were buried at a depth of 6 feet. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Category 6 based on the anticipated need for remedial actions. Releases from this site will be addressed by SVE, ZVI and PRB. This site also is located in the DF disposal area where the selected actions. Releases from this site will be addressed by SVE, ZVI and PRB. This site also is located in the DF disposal area where the selected sites: Source Areas RD and Off-Depot Groundwater RD. Dunn Field RDI and ZVI PRB Implementation Study completed in 2006. Anticipate completing a FOST for this subparcel in 2010.	This subparcel is associated with Sites 12 and 12.1 (Sulfuric and Hydrochlonc Acid Burial) where 30 pallets of discarded acid containers were buried at a depth of 8 feet. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable fisks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers for change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. Releases from Site 12 will be addressed by SVE, ZVI and PRB. These sites also are located in the DF disposal area where the selected CERCLA remedy includes LUCs. Two RDs are being prepared to address these sites. Source Areas RD and Off-Depot Groundwater RD. Dunn Field RDI and ZVI PRB Implementation Study completed in 2006.
FACILITY	DF Site 11 (Trichloroacetic Acid Burial, 1965)	DF Sites 12 and 12.1 (Sulfuric and Hydrochloric Acid Burial, 1967)
APPROXIMATE SIZE <sup>b</sup> (acres)	<0.01	90 0
LOCATION (x, y coordinates)	31,9	27,8
SUBPARCEL NUMBER AND LABEL <sup>2</sup>	36.7(6)	36.8(6)

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

•

93 of 102

2004, and DF Disposal Sites RD 2004, and DF Disposal Sites RD selected as part of the CERCLA selected as part of the CERCLA required at this site. Excavation the subsurface soil remediation action required at this site. This USEPA approved the Disposal Per DF ROD effective April 12 excavation, transportation and Per DF ROD effective April 12. 2006. This subparcel overties disposal as well as LUCs are subsurface soil remediation other than LUCs no further Sites RACR on August 25, area where SVE/ZVI was area where SVE/ZVI was **REMEDIATION/** completed in April 2005. MITIGATION subparce! overlies the remedy. remedy. indicate excavation, transportation and disposal as well as LUCs required at this cubic yards of mixed chemicals and acids and 8,100 pounds of unnamed solids exceeding MCLs and that burial sites within the Disposal Area are not suited for This subparcel is associated with Sites 16 (Unknown Acid Burial Site, 1969)and no further action is required for this site; however, it is located in the DF disposal anticipated need for remedial actions. DF ROD and Disposal Sites RD indicate reuse, but did present unacceptable risks for residential reuse. The report also exceeding BCT screening criteria (including VOCs in subsurface soil impacting groundwater beneath this subparcel contains VOC levels exceeding MCLs and BCT concurred to change this subparcel from Category 7 to Category 6 based because of possible disturbance of buried wastes. In 2002, the BCT concurred where SVE/ZVI was selected as part of the CERCLA remedy Excavation was present unacceptable risks for residential reuse. The report also indicated that constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial utility workers because of possible disturbance of buried wastes. In 2002, the on the anticipated need for remedial actions DF ROD and Disposal Sites RD indoor air) that did not present unacceptable risks for industrial reuse, but did completed in Aprit 2005, and USEPA approved the Disposal Sites RACR on August 25, 2006 Anticipate completing a FOST for this subparcel in 2010. unnamed acid were burned. The DF RI Report indicated several constituents subsurface soil remediation area where SVE/ZVI was selected as part of the area where the selected CERCLA remedy includes LUCs and it overlies the This subparcel is associated with Site 13 (Mixed Chemical Burial) where 32 remedy includes LUCs and it overlies the subsurface soil remediation area CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010. site It is also located in the DF disposal area where the selected CERCLA 93 (SWMU/16.1 Unknown Acid Bunial Sites) where unknown amounts of that burnal sites within the Disposal Area are not suited for utility workers indicated that groundwater beneath this subparcel contains VOC levels to change this subparcel from Category 7 to Category 6 based on the were buried at a depth of 8 feet. The DF RI Report indicated several BASIS<sup>c</sup> Burial Site, 1969) Chemical Burial, Site 93 (SWMU unnamed solids, 16.1/Acid Burial Site 13 (Mixed (Unknown Acid 8,100 pounds) Acid. 900 FACILITY pounds, Site 16 Site) Ь Ь APPROXIMATE (acres) SIZE 0.01 <0.01 coordinates) LOCATION χ, γ 28,8 28,8 SUBPARCEL NUMBER AND LABEL<sup>®</sup> 36.10(6) 36.9(6)

94 of 102

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

Î

1

I

REMEDIATION/ MITIGATION	Per DF ROD effective April 12. 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. Releases from this unit will be addressed by SVE, ZVI and PRB. Source Areas RD to be completed and RA to begin in 2007. Issues regarding Off Depot Groundwater RD (PRB) may result in delay of final document.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soir remediation selected as part of the CERCLA remedy.
BASIS <sup>c</sup>	This subparcel is associated with Site 17 (Mixed Chemical Burial Site C) where an unknown amount of chemicals and medical supplies were buried. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of buned wastes. In 2002, the BCT concurred to change this subparcel from of buned wastes. In 2002, the BCT concurred to change this subparcel from file, however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs. Releases from this unit are addressed by SVE, ZVI and PRB. Two RDs are being prepared to address these sites. Source Areas RD and Off-Depot Groundwater RD. Dunn Field RDI and ZVI PRB Implementation Study completed in 2006. Anticipate completing a FOST for this subparcel in Study completed in 2006. Anticipate completing a FOST for this subparcel in	This subparcel is associated with the open land area surrounding the disposal pits, excluding existing subparcels and extending along the northern fenceline to Hays Rd. The boundaries for this subparcel are on the north by the southern edge on the east by Subparcels 36.30 and 36.32, on the south by the southern edge of the asphalt pad (intersecting by but excluding Subparcel 36.29), and on the west by the fence line. This subparcel is associated with Site 18 (Plane Crash Residue) and Site 22 (Hardware Burial Site, nuts and bolts). This area contains grassy areas that west by the fence line. This subparcel is associated with Site 18 (Plane Crash Residue) and Site 22 (Hardware Burial Site, nuts and bolts). This area contains grassy areas that were historically sprayed with pesticutes and herbicides. The DF RI Report indicated several constituents exceeding BCT screening critena that did not present unacceptable risks for industrial reuse. The report also imposible risks for residential reuse. The report also undicated that VOCs in subsurface soil impacting indoor air did present unacceptable risks for residential reuse. The report also undicated that VOCs in subsurface soil impacting indoor are did present unacceptable risks for residential reuse. The report also undicated that VOCs in subsurface soil impacting indoor are did present unacceptable risks for residential reuse. The report also undicated that VOCs in subsurface soil impacting indoor are the subsurface soil endor the selected for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. DF ROD and Disposal Sites RD indicate no further action is required for Sites 18 and 22; however, this subparcel is located in the DF disposal area where ROCLA remedy includes LUCs and it for sequered for sites where SVE/ZVI was selected as part of the CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010.
FACILITY	DF Site 17 (Mixed Chemical Bunal Site C, 1969)	Open land area surrounding disposal pits and extending along the northern fenceline to Hays fenceline to Hays over groundwater oontamination) Site 18 (Plane Crash Residue) Site 18 (Plane Crash Residue) Site 22 (Hardware Burial Site, nuts and bolts)
APPROXIMATE SiZE <sup>b</sup> (acres)	<0.01	15.84
LOCATION (x, y coordinates)	28, 28,	29,10
SUBPARCEL NUMBER AND LABEL	36.11(6)	36.15(6)

SUBPARCEL NUMBER AND LABEL <sup>*</sup>	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>c</sup>	REMEDIATION/ MITIGATION
36.16(6)	29,9	80 0	DF Site 1 (Mustard and Lewsite Training Sets Burial Site)	This subparcel is associated with Site 1 (Mustard and Lewsite Training Sets Burial Site) where nine sets of Chemical Agent Identification Sets were reportedly buried in 1955. In 1998, sampling of surface soil, subsurface soil and groundwater around this site indicated no migration of chemical warfare materiel. In order to reduce potential risk from chemical warfare materiel, the Army determined the CWM must be removed. In June 1999, the BCT concurred to conduct a removal action and to change this subparcel from Category 7 to Category 6. The Depot completed the removal action in May 2001. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil that impact indoor air and in groundwater at tevels exceeding MCLs) that did not present unacceptable risks for industrial revuse, but du present unacceptable risks for residential rese. In 2002, the BCT concurred that this subparcel remains Category 6 based on the anticipated need of or further remedial actions. DF ROD and Disposal Sites RD indicate no further action is required for this site, however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs. And it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the subsurface soil remediation area where SVE/ZVI was selected as part of the	CWM removal action completed in 2001. Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This site overlies area where SVE/ZVI was selected as part of the CERCLA remedy.
36.17(6)	6. 02	20.0	DF Site 9 (Ashes and Metal Burial Site burning pit refuse, 1955)	This subparcel is associated with Site 9 (Ashes and Metal Bunal Site) where debris from Site 24 (Former Burn Site) was buried. The CWM field investigation determined this area does not contain CWM. See Appendix E for the documentation regarding this determination. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor art) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of burned wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedual actions. DF ROD and Disposal Sites RD indicate the selected CERCLA remedy includes LUCs and it disposal area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVETVI was selected as part of the CERCLA remedy Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overfles the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.

883 197

96 of 102

2004, and DF Disposal Sites RD 2004, and DF Disposal Sites RD selected as part of the CERCLA selected as part of the CERCLA action required at this site. This action required at this site. This Per DF ROD effective April 12, Per DF ROD effective April 12, subsurface soil remediation subsurface soil remediation other than LUCs no further other than LUCs no further area where SVE/ZVI was area where SVE/ZVI was **REMEDIATION/** MITIGATION subparcel overlies the subparcel overlies the remedy. remedy. determined this area does not contain CWM. See Appendix E for documentation determined this area does not contain CWM. See Appendix E for documentation expired shelf life were buried. Reportedly, CAIS sets were also buried here. The no further action is required for this site; however, it is located in the DF disposal This subparcel is associated with Site 86 (Food Supplies) where food items with expired shelf life were buried. Reportedly, CAIS sets were also buried here. The no further action is required for this site; however, it is located in the DF disposal exceeding BCT screening criteria (including VOCs in subsurface soil impacting groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers anticipated need for remedial actions. DF ROD and Disposal Sites RD indicate exceeding BCT screening criteria (including VOCs in subsurface soil impacting groundwater beneath this subparcel contains VOC levels exceeding MCLs and anticipated need for remedial actions. DF ROD and Disposal Sites RD indicate regarding this determination The DF RI Report indicated several constituents because of possible disturbance of buried wastes. In 2002, the BCT concurred because of possible disturbance of buried wastes. In 2002, the BCT concurred present unacceptable risks for residential reuse. The report also indicated that regarding this determination. The DF RI Report indicated several constituents present unacceptable risks for residential reuse. The report also indicated that indoor air) that did not present unacceptable risks for industrial reuse, but did indoor air) that did not present unacceptable risks for industrial reuse, but did subsurface soil remediation area where SVE/ZVI was selected as part of the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010. area where the selected CERCLA remedy includes LUCs and it overlies the area where the selected CERCLA remedy includes LUCs and it overlies the CEHNC ordnance division and the CWM field investigation contractor have This subparcel is associated Site 86 (Food Supplies) where food items with CEHNC ordnance division and the CWM field investigation contractor have CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010. that burial sites within the Disposal Area are not suited for utility workers to change this subparcel from Category 7 to Category 6 based on the to change this subparcel from Category 7 to Category 6 based on the BASIS Site 86 (Food Supplies) Site 86 (Food FACILITY Supplies) Ч Ц APPROXIMATE SIZE (acres) 0.61 0.02 coordinates) LOCATION × × 28,9 28,9 NUMBER AND LABEL SUBPARCEL 36.18(6) 36.19(6)

883 198

97 of 102

January 2007

I

ARCEL ER AND	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>6</sup>	REMEDIATION/ MITIGATION
	31.9	0.0	DF Site 6 (40,037 units eye ointment Burial Site, 1955)	This subparcel is associated with Site 6 (40.037 units of eye ontment) were buried here in 1955. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the to change this subparcel from Category 7 to Category 6 based on the area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.
	30,8	0.07	DF Site 10 (Solid Waste Burial Site near MW10, metal, glass, trash, etc.)	This site is associated with Site 10 and was discovered during the installation of monitoring well 10 Charred debris was encountered. The DF RI Report indicated several constituents exceeding BCT screening criteria that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for industrial reuse, but did present unacceptable risks for residentual reuse. The report also indicated that VOCs in subsurface soil impacting indoct mat did present unacceptable risks for industrial and residential eruse, that groundwater beneath this subparcel contains VOCs levels exceeding MCLs, and that bural sites within the Disposal Area are not suited for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated need for remedial actions. This site also is located in the DF disposal area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the August 25, 2006. Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD excavation, transportation and disposal as well as LUCs required at this site. Excavation began in March 2005 and was completed in 2006. USEPA approved the Disposal Sites RACR on August 25, 2006. This subparcel overlies the subbarcel overlies the subbarced as part of the CERCLA remedy.

SUBPARCEL NUMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>E</sup>	REMEDIATION/ MITIGATION
36.22(6)	28,8	0.01	DF Site 14 (Municipal Waste Burial Site B near MW12, food, paper products)	This municipal waste burial site reportedly contains paper, food, and other unmamed materials. This subparcel is associated with Site 14. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of burned wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 5 based on the anticipated need for remedial actions. DF ROD and Disposal Sites RD indicate no further action is required for this site; however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediaton area where SVE/ZVI was selected as part of the CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.
36.23(6)	28,8	0.08	DF Site 15 (Sodium Burial Sites, 1968) Site 91 (SWMU 15.1/Sodium Phosphate Burial, 1968) Site 92 (SWMU 15.2/14 Bural Ptts: Na2PO4, Sodium, Acid, Medical Supplies, and Chlorinated Ime, 1969)	This subparcel is associated with Site 15 (Sodium Burial Sites, 1968), Site 91 (SWMU 15.1/Sodium Phosphate Burial, 1968), Site 92 (SWMU 15.2/14 Burial Pits: Na2PO4, Sodium, Acid, Medical Supplies, and Chlorinated lime, 1969). Records indicate that one pallet each of sodium and sodium phosphate containers, and an unknown quantity of sodium, sodium phosphate, acid, chlorinated lime, and an unknown quantity of sodium, sodium phosphate, acid, chlorinated lime, and medical supplies were buried here in 1970 The DF RI Records indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse. but did present unacceptable risks for residential reuse The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs and that burial sites within the Disposal Area are not suited for utility workers because of possible disturbance of buried wastes. In 2002, the BCT concurred to change this subparcel from Category 7 to Category 6 based on the anticipated meed for remedial actions. The Disposal Sites RD indicate no further action is required for this site, however, it is located in the DF disposal area where the selected CERCLA were SVE/XI was selected as part of the CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy.

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

99 of 102

.

TABLE 3-6 SUBPARCEL DESCRIPTIONS	
-------------------------------------	--

UBPARCEL UMBER AND LABEL*	LOCATION (x, y coordinates)	APPROXIMATE SIZE <sup>b</sup> (acres)	FACILITY	BASIS <sup>°</sup>	REMEDIATION/ MITIGATION
5.28(6)	6.06	0.11	DF Site 61 (Buried Drain Pipe Northwestern Quadrant of DF)	This subparcel is associated with Site 61(Buried Drain Pipe Northwest Quadrant), a concrete stormwater pipe installed in the mid-1950s that collects stormwater runoff from surrounding areas. The DF RI Report indicated several constituents exceeding BCT screening criteria (including VOCs in subsurface soil impacting indoor air) that did not present unacceptable risks for industrial reuse, but did present unacceptable risks for residential reuse. The report also indicated that groundwater beneath this subparcel contains VOC levels exceeding MCLs. In 2002, the BCT concurred to change this subparcel from Categoory 7 to Category 6 based on the anticipated need for remedial actions. DF ROD and Disposal Sites RD indicate no further action is required for this site; however, it is located in the DF disposal area where the selected CERCLA remedy includes LUCs and it overlies the subsurface soil remediation area where SVE/ZVI was selected as part of the CERCLA remedy. Anticipate completing a FOST for this subparcel in 2010.	Per DF ROD effective April 12, 2004, and DF Disposal Sites RD other than LUCs no further action required at this site. This subparcel overlies the subsurface soil remediation area where SVE/ZVI was reelected as part of the CERCLA remedy.

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

January 2007

100 of 102

Per DF ROD effective April 12, 2004, and DF Disposal Sites RD USEPA approved the RACR on August 25, 2006. This subparcel cubic yards of soil contaminated SVE/ZVI was selected as part of November 2000, 33 cubic yards recovered from Site 24 and 900 disposal required for IA Site 31 completed the non-time critical products were excavated from action required at Sites 23, 24, excavation, transportation and products were excavated and disposed offsite. Beginning in with mustard degradation bymustard and degradation bydisposed offsite. The Depot removal action in May 2001 overlies the subsurface soil Other than LUCs no further All 29 bomb casings were of soil contaminated with the neutralization pit and **REMEDIATION** Excavation of IA Site 31 completed in April 2005 remediation area where MITIGATION 63, 64 or the CC-2 site. the CERCLA remedy issued an IRP or DSERTS site number. Site 64 covered both sites until removed This subparcel includes 1 of those mound locations. The DF RI Report indicated This subparcel is associated with Site 24 (Former Burn Site/Bomb Casing Burial 31 (reportedly used for burning/disposal of smoke pots, CN {tear gas} grenades Army determined the CWM must be removed. In June 1999, the BCT concurred 1947 per the Archive Search Report) and the 1981 Installation Assessment Site Beginning in November 2000, 33 cubic yards of soil contaminated with mustard subsurface soil impacting indoor air) that did not present unacceptable risks for 2002, the BCT concurred to change this subparcel from Category 7 to Category where SVE/ZVI was selected as part of the CERCLA remedy. Excavation of IA Site 31 was completed in April 2005. USEPA approved the RACR in August 25, Storage Southwestern Quadrant), and Site 64 (Bauxite Storage). In April 2004, to conduct a removal action at Site 24 and concurred to change this subparcel from Category 7 to Category 6. Beginning in August 2000 all 29 bomb casings and souvenir ordnance) with Site 64. Neither the CC-2 nor the IA Site 31 were began leaking mustard. Upon examination of the cars, 29 bomb casings were burster remained intact. In 1998, sampling of surface soil, subsurface soil and this subparcel is located in the DF disposal area where the selected CERCLA identified as leaking These casings were taken to one pit at DF and drained disposed offsite. The Depot completed the non-time critical removal action in industnal reuse, but did present unacceptable risks for residential reuse. The suited for utility workers because of possible disturbance of buried wastes. In materiel. In order to reduce potential risk from chemical warfare materiel, the by DNSP in 1973. In 1946, railcars carrying captured German bomb casings May 2001. Site 63 includes 11 fluorspar mounds removed by DNSP by 1999 further action was required for Sites 23, 24, 63, 64 or the CC-2 site, however levels exceeding MCLs and that burral sites within the Disposal Area are not 6 based on the anticipated need for remedial actions. DF ROD and Disposal DDC consolidated the CC-2 Impregnite Burial Site (86,000 pounds buried in into and neutralized by a chlorinated lime (super tropical bleach) slurry. The and degradation by-products were excavated from the neutralization pit and report also indicated that groundwater beneath this subparcel contains VOC Site), Site 23 (Construction Debris and Food Burial Site), Site 63 (Fluorspar containing suffur mustard in route to Pine Bluff Arsenal, AR from Mobile, AL drained casings were placed in the pit and destroyed by dynamite in case a were recovered from Site 24 and 900 cubic yards of soil contaminated with Sites RD indicate excavation, transportation and disposal of IA Site 31 No remedy includes LUCs and it overlies the subsurface soil remediation area several constituents exceeding BCT screening criteria (including VOCs in groundwater around this site indicated no migration of chemical warfare mustard degradation by-products were excavated and disposed offsite. 2006. Anticipate completing a FOST for this subparcel in 2010. BASIS<sup>c</sup> Environmental Condition Category 7: No subparcels designated Category 7. bunal site, and IA Debris and Food Site 24 (Former Bunal/Bum Site Quadrant of DF) Site 64 (Bauxite burning/disposal (Construction Storage, CC-2 Neutralization southwestern of smoke pots CN grenades and souvenir Burial Site) FACILITY (Fluorspar ordnance) Site 63 Storage Site 23 Site 31 and Ε Ь APPROXIMATE size <sup>ه</sup> (acres) 7.5 coordinates) LOCATION (x, y 23,9 SUBPARCEL NUMBER AND LABEL<sup>®</sup> 36.29(6)

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

101 of 102

			on Report	ç	nd Recovery Act				ounds	ons		ls					gency Plan, Safe		
		Property Disposal Office	Remedial Action Completic	Remedial Action Work Plai	Resource Conservation an	Remedial Design	Remedial Investigation	Soil Vapor Extraction	Semivolatile organic comp	Total petroleum hydrocarb	Underground storage tank	Volatile organic compound	Zero-Valent Iron				utrations, the National Contin		
		PDO	RACR:	RAWP:	RCRA:	RD:	Н	SVE	svoc:	TPH:	UST:	VOC:	Ż				sed concer		
TABLE 3-6 BPARCEL DESCRIPTIONS		Defense Reutilization and Marketing Office	Environmental Baseline Survey	Land Use Controls	Land Use Control Implementation Plan	Main Installation	Poly aromatic hydrocarbon	Polychlorinated biphenyl	Pentachlorophenol	Petroleum, oil and lubricant	Permeable Reactive Barrier	parts per million		in parantheses (e.g 1.1(1)) is substance release or disposal is substance storage	inated biphenyls /or ordnance fragment (unverified)	AutoCAD Release 13.	CT meeting and were based on preliminary risk bi stats, regional background levels.		
SUI		DRMO:	EBS:	LUCs:	LUCIP:	MI:	PAH:	PCB:	PCP:	POL:	PRB:	:mqq		n Category Hazardou Hazardou	Polychlori UXO and/ Possible (	lated using	ust 1997 B( or some me		
		-: Aboveground storage tank	ERAC Cleanup Team	VC: Base Realignment and Closure	S: Chemical Agent Identification Sets	U.S. Department of Army	C: Defense Distribution Center	5: 4,4'-Dichlorodiphenyltrichloroethane	Dunn Field	. Defense Logistics Agency	SP: Defense National Stockpile Program	Depot Redevelopment Corporation		numbers include the Environmental Conditior Petroleum storage Petroleum release or disposal HS:	ubparcel label definitions are as follows: Asbestos containing material P. X: Radionucides (P):	gures are approximate; they have been calcul.	ming criteria were established during the Augu /ater Act maximum contaminant levels and, fo		
	Notes.	AST	BCT	BRA	CAIS	DA:	DDC	TOO	DF:	DLA	DNS	DRC		a) Subparcel PS: F PR: F	Qualified s A: R: RD: F	b) Acreage fic	c) BCT scree Drinking W		

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

January 2007

102 of 102

### TABLE 3-7 UNCONTAMINATED CATEGORY 1 SUBPARCELS

SUBPARCEL	MAP	BUILDING
NUMBER	LOCATION (a)	NUMBER
1.1	32,10	1
1.2	32,13	2
1.3	NA	129
1.4	31,13	139
1.5	34,12	144
1.6	32,13	145
1.7 demolished	31,10	155
2.1	34,6	176
2.2	NA	178
2.3	34,5	179
2.4	34,5	181
2.5	NA	183
2.6	34,4	184
3.1	32,2	193
3.2	31,2	195
3.3	31,2	196
3.4	31,2	198
4.1 demolished	30,10	252
4.2	31,7	270
4.3	31,7	271
4.11 demolished	29,9	253
6.3	27,12	349
8.2	29,15	229
8.3	29,14	230
8.4	26,15	329
8.5	26,13	330
9.2	26,15	429
9.4	23,12	449
9.5	23,11	450
10.4	20,12	549
10.6	17,11	650

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

•

# TABLE 3-7 UNCONTAMINATED CATEGORY 1 SUBPARCELS

		I
NUMBER	MAP LOCATION <sup>(8)</sup>	BUILDING NUMBER
11.3	20,14	530
11.4	16,13	630
13.1	33,16	23
13.2	NA	24
13.3	32,16	25
13.4	31,17	210
14.1	27,19	22
15.1	10,18	15
16.2 demolished	17,10	559
17.1	Relocated to open area near Building 925; 4,16	459
21.1	17.3	690
23.1	19,2	7
23.2	13,2	8
23.3 demolished	11,4	787
23.4	NA	795
23.5	5,2	S995
29.1	3,10	9
30.4	4,11	949
33.1	13,16	727
33.2 demolished	14,10	754
33.3	14,10	755
33.4	14,9	756
33.5 demolished	11,10	860
33.10	14.10	753
34.1	24,8	360

#### Notes:

(a) Map locations relate to coordinates on Figure 3-5.

TABLE 3-8	<b>MUALIFIED SUBPARCEL DESCRIPTIONS</b>
-----------	---

ć

4

QUALIFIED SUBPARCEL NUMBER AND LABEL <sup>a</sup>	LOCATION (X,Y COORDINATES)	APPROXIMATE SIZE (ACRES) <sup>b</sup>	BUILDING NUMBER	BASIS	REMEDIATION/ MITIGATION
1.2-2Q-A/L(P)	32,13	0.01	2	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
1.5-144Q-A/L(P)	34,12	0.31	144	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
1.6-S145Q-A/L(P)	AN	0.02	S145	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
2.1-176Q-A/L	34,6	0.11	176	ACM and LBP present; confirmed by previous sampling and testing.	LBP removed/ encapsulated. No further mitigation.
2.2-S178Q-A/L(P)	Ϋ́Υ	0.03	S178	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	LBP removed/ encapsulated. No further mitigation.
2.3-179Q-A/L	33,5	0.11	S179	ACM and LBP present; confirmed by previous sampling and testing.	LBP removed/ encapsulated. No further mitigation.
2.4-181Q-A/L	34,5	0.11	181	ACM and LBP present; confirmed by previous sampling and testing.	LBP removed/ encapsulated. No further mitigation.
2.5-S183Q-A/L(P)	NA	0.11	S183	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	LBP removed/ encapsulated. No further mitigation.
2.6-184Q-A/L	34,4	0.11	184	ACM and LBP present; confirmed by previous sampling and testing. Lead from exterior paint present in soil at levels greater than 400 ppm.	Soil was removed. No further mitigation.
3.2-S195Q-A/L	31,2	0.10	S195	ACM and LBP present; confirmed by previous sampling and testing.	No current mitigation.
3.3-196Q-A/L(P)	31,2	0.02	196	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
3.4-S198Q-A/L(P)	31,2	0.01	S198	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.

January 2007

1 of 7

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

TABLE 3-8 LIFIED SUBPARCEL DESCRIPTIONS
--

/

 $\langle 1 \rangle$ 

		QUALIFIED	<b>SUBPAR(</b>	CEL DESCRIPTIONS	
QUALIFIED SUBPARCEL NUMBER AND LABEL <sup>a</sup>	LOCATION (X,Y COORDINATES)	APPROXIMATE SIZE (ACRES) <sup>b</sup>	BUILDING NUMBER	BASIS	REMEDIATION/ MITIGATION
3.5-398Q-A/L(P)	29,4	0.01	398	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
4.2-270Q-A/L(P)	31,7	0.33	270	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
4.3-S271Q-A/L(P)	31,7	0.03	S271	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
4.4-260Q-A/L(P)	30,9	0.15	260	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
4.8-263Q-L(P)	30,9	0.02	263	LBP possible based on the year of construction.	No current mitigation.
4.13-265Q-A/L(P)	31,8	0.18	265	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
5.1-T272Q-L(P)	29,7	0.03	T272	LBP possible based on the year of construction.	No current mitigation.
5.2-274Q-A/L(P)	29,7	0.31	274	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
6.2-250Q-A/L(P)	29,11	2.8	250	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
6.3-349Q-A/L(P)	27,12	2.8	349	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
6.4-350Q-A/L(P)	26,11	2.8	350	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
7.2-249Q-A/L(P)	29,12	2.8	249	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.

.

January 2007

.

2 of 7

883 207

.

Í

QUALIFIED SUBPARCEL NUMBER AND LABEL <sup>3</sup>	LOCATION (X,Y COORDINATES)	APPROXIMATE SIZE (ACRES) <sup>b</sup>	BUILDING NUMBER	BASIS	REMEDIATION/ MITIGATION
8.2-229Q-A/L(P)	29,15	2.8	229	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
8.3-230Q-A/L(P)	30,14	2.8	230	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
8.4-329Q-A/L(P)	26,15	2.8	329	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
8.5-330Q-A/L(P)	26,13	2.8	330	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
9.2-429Q-A/L(P)	23,15	2.8	429	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
9.3-430Q-A/L(P)	23,13	2.8	430	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
9.4-449Q-A/L(P)	23,12	2.8	449	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
9.5-450Q-A/L(P)	23,11	2.8	450	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
10.1-649Q-A/L(P)	16,12	2.8	649	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
10.4-549Q-A/L(P)	20,12	2.8	549	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
10.5-550Q-A/L(P)	19,11	2.8	550	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
10.6-650Q-A/L(P)	17,11	2.8	650	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.

883 208

3 of 7

.

January 2007

Í

Ŝ

þ

.

QUALIFIED					
NUMBER AND LABEL <sup>a</sup>	LOCATION (X,Y COORDINATES)	APPROXIMATE SIZE (ACRES) <sup>b</sup>	BUILDING NUMBER	BASIS	REMEDIATION/ MITIGATION
11.2-529Q-A/L(P)	19,15	2.8	529	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
11.3-530Q-A/L(P)	20,14	2.8	530	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
11.4-630Q-A/L(P)	16,13	2.8	630	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
12.2-629Q-A/L(P)	16,15	2.8	629	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
13.1-23Q-A/L(P)	33,16	<0.01	23	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
13.2-24Q-L(P)	NA	<0.01	24	LBP possible based on the year of construction.	No current mitigation.
13.3-25Q-L(P)	32,16	<0.01	25	LBP possible based on the year of construction.	No current mitigation.
13.4-210Q-A/L(P)	31,17	5.5	210	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
14.1-22Q-A/L(P)	27,19	<0.01	22	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
15.1-15Q-A/L(P)	10,18	<0.01	15	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
15.2-S308Q- A/L(P)	26,18	0.01	S308	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
15.3-319Q-A/L(P)	26,16	0.41	319	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
15.6-301Q- A(P)/L(P)	18,17	<0.01	301	ACM and LBP possible based on the year of construction.	No current mitigation.

January 2007

4 of 7

883 209

TABLE 3-8	<b>IFIED SUBPARCEL DESCRIPTION</b>
	Ţ

Î

		QUALIFIED	SUBPAR	CEL DESCRIPTIONS	
QUALIFIED SUBPARCEL NUMBER AND	LOCATION (X,Y	APPROXIMATE	BUILDING		REMEDIATION/
15.6-S309Q- A/L(P)	25,18	0.01	S309	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction	No current mitigation.
19.1-S468Q-L(P)	21,8	0.22	S468	LBP possible based on the year of construction.	No current mitigation.
19.2-S465Q-A	22,7	0.01	S465	ACM present; confirmed by previous sampling and testing.	No current mitigation.
19.3-S469Q-L(P)	22,8	0.22	S469	LBP possible based on the year of construction.	No current mitigation.
20.2-670Q-A/L(P)	17,6	5.0	670	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
20.3-470Q-A/L(P)	20,7	5.0	470	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
20.4-489Q-A/L(P)	21,5	5.0	489	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
21.1-690Q-A/L(P)	17,3	5.0	069	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
21.2-490Q-A/L(P)	23,3	5.0	490	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
21.3-689Q-A/L(P)	15,5	5.2	689	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
21.4-685Q-A/L(P)	15,4	0.73	685	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
23.2-8Q-A/L(P)	13,2	0.02	8	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
23.4-795Q-L(P)	NA	0.01	795	LBP possible based on the year of construction.	No current mitigation.

January 2007

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

5 of 7

TABLE 3-8	LIFIED SUDPARCEL UESCAIP II
-----------	-----------------------------

Ĵ

Î

Î

		QUALIFIED	<b>SUBPAR(</b>	CEL DESCRIPTIONS		
QUALIFIED SUBPARCEL NUMBER AND	LOCATION (X,Y	APPROXIMATE	BUILDING		REMEDIATION	
		SIZE (AUKES)	NUMBER	LBP possible based on the vear of	MITIGATION	
23.0-/ 33U-L(P)	11,3	0.04	793	construction.	No current mitigation.	
24.3-770Q-A/L(P)	12,8	0.57	770	ACM present; confirmed by previous sampling and testing. LBP possible based on	No current mitigation.	
				the year of construction.	5	
24.3-T771Q- A/L(P)	11,7	0.02	T771	ACM present; confirmed by previous sampling and testing. LBP possible based on the vear of construction.	No current mitigation.	
26.2-S970Q- A/L(P)	6,4	6.3	S970	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	
27.2-S972Q- A/L(P)	4,4	6.3	S972	ACM present; confirmed by previous sampling and testing. LBP possible based on the vear of construction.	No current mitigation.	
28.2-S1089Q- A(P)/L(P)	3,5	0.91	S1089	ACM and LBP possible based on the year of construction.	No current mitigation.	
29.1-9Q-A/L(P)	3,10	0.01	6	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	
29.2-801Q-A/L(P)	4,18	0.01	801	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	
33.4-756Q-A	14,9	0.06	756	ACM present; confirmed by previous sampling and testing.	No current mitigation.	
33.9-717Q-A/L(P) This building is in Subparcel 15.6	12,14	0.01	717	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	
33.9-S737Q- A/L(P)	13,13	0.13	737	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	
33.13-720Q- A/L(P)	14,15	0.11	720	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	
35.1-S1090Q- A/L(P)	3,3	0.02	S1090	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.	

6 of 7

883 211

	. :	QUALIFIED	TABLI SUBPAR(	E 3-8 CEL DESCRIPTIONS	
QUALIFIED SUBPARCEL NUMBER AND LABEL <sup>a</sup>	LOCATION (X,Y COORDINATES)	APPROXIMATE SIZE (ACRES) <sup>b</sup>	BUILDING NUMBER	BASIS	REMEDIATION/ MITIGATION
35.3-1086Q-L(P)	3,5	0.22	1086	LBP possible based on the year of construction.	No current mitigation.
35.4-1087Q- A/L(P)	3,3	0.11	1087	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
35.4-1088Q-L(P)	3,3	0.05	1088	LBP possible based on the year of construction.	No current mitigation.
35.5-S1091Q- A/L(P)	2,2	0.02	S1091	ACM present; confirmed by previous sampling and testing. LBP possible based on the year of construction.	No current mitigation.
Notes: a) Parcel label defin PS = petroleum st PR = petroleum re HS = hazardous s HR = hazardous s	titions are as follows: orage slease or disposal ubstance release or o ubstance release or o	Qualified pa A = asbestc L = lead-ba P = polycht disposal R = Radon X = UXO ar	arcel label defir os containing m sed paint orinated bipher nd/or ordnance	itions are as follows: ateriał yls fragments	erified)
b) Acreage figures ar	e approximate; they h	lave been calculated (	using AutoCAD	Release 13.	

Î

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

January 2007

#### SECTION FOUR

#### INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

#### 4.0 INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

This section describes and summarizes the installation-wide environmental restoration and compliance strategy for the Depot.

Prior to closure of the Depot on 30 September 1997, restoration projects were underway to identify, characterize, and remediate environmental contamination at the Depot. The restoration strategy focused on the protection of human health and the environment at the Depot, taking into consideration the ongoing and continued use of the Depot. With the closure announcement, the restoration strategy for the Depot changed from supporting an active military installation to responding to property disposal (transfer) and reuse considerations. The Depot environmental restoration strategy was therefore modified to address closure and reuse while still focusing on protection of human health and the environment.

The overall environmental and compliance strategy is the responsibility of DDC. The Depot's BRAC strategy is designed to ensure that all regulatory requirements are met, and that adequate and cost-effective restoration activities are implemented as quickly as possible to provide expedited transfer and reuse in compliance with U.S. Army and DRC redevelopment goals. The current strategy provides for the completion of all site restoration construction activities on the facility by 2009, with LTM of groundwater anticipated to continue until 2019.

The following sections describe various elements of the Depot BRAC environmental restoration strategy, including area designation strategy, compliance strategy, and natural and cultural resources strategy.

#### 4.1 ZONE/OU DESIGNATION AND STRATEGY

Site designations were developed during overlapping environmental restoration programs and for facility reuse. Environmental restoration sites were first identified during the 1990 RFA, and additional sites were added over time. When the Depot was placed on the NPL in 1992 and during subsequent FFA negotiations, the Depot was broken into four OUs based on the geographic layout of the facility, and the number of restoration sites increased. After being placed on the BRAC list, the Depot was divided into BRAC parcels. During development of the RIs, the MI was divided into seven FUs and Dunn Field into three Areas based on historical use and proposed reuse. DOD uses an environmental tracking system, Defense Site Environmental Restoration Tracking System (DSERTS) that encompasses the restoration sites and the BRAC parcels.

#### **SECTION FOUR**

#### INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

#### 4.1.1 Zone/OU Designations

In 1990, a USEPA contractor conducted a RFA of the Depot that identified 57 SWMUs/AOCs, also called restoration sites. After placement on the NPL in 1992 and during subsequent FFA negotiations, the Depot was broken into the following OUs as shown in Figure 1-2a:

- OU-1, Dunn Field;
- OU-2, Southwest Quadrant, MI;
- OU-3, Southeastern Watershed and Golf Course, MI;
- OU-4, North-Central Area, MI.

The SMP portion of the FFA increased the number of sites to 89. Table 3-1 shows the relationship between restoration sites, OUs, and BRAC parcels. Figures 3-1 through 3-4 show the restoration sites in relation to the OUs.

When the facility was designated as a BRAC closure facility in 1995, the Depot was divided into parcels and subparcels. These parcels and subparcels were developed from a reuse and environmental restoration perspective. Thirty-six parcels were formed. Areas of environmental concern within each parcel were broken into subparcels and represent buildings, spill locations, burial locations, former pistol ranges, open land areas, and sites. This BRAC parcel system has allowed for the sites to be compared directly to BRAC parcels for reuse purposes and to facilitate sampling/analysis; CERFA environmental condition of property category decision-making; leasing; and, ultimately, transfer.

In 1999, during development of the RIs, rather than assess each parcel individually to evaluate risk to human health and the environment, the MI was divided into seven FUs for conducting baseline risk assessments based on similar historical use and proposed reuse, FUs 1 through 6 with groundwater being FU-7 (see Figure 1-2a). To assist investigations at Dunn Field, it was divided into three areas for conducting baseline risk assessments based on similar historical use and proposed reuse, Northeast Open Area, Stockpile Area, and Disposal Area (see Figure 1-2b).

In 2004, DDC submitted a RCRA Part B permit application that contained 93 SWMUs/AOCs, including the 89 from the 1990 permit. Two of the 89 sites consisted of multiple disposal locations

#### SECTION FOUR

#### INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

that were separated, bringing the total number of sites to 93. The DSERTS encompasses these 93 sites as well as 21 of the BRAC parcels.

#### 4.1.2 Sequence

The environmental restoration program sequence has focused on completing activities at the MI, because DRC identified it as a priority for reuse, and then completing activities at Dunn Field. Table 4-1 shows key documents submitted up to 1 October 2006 and projects delivery dates for other key documents.

#### 4.1.3 Early Actions Strategy

The Depot's strategy for early actions has encompassed DRC's priorities for reuse as well as the BCT's identification of sites suitable for early action. The Depot has completed several early actions, as shown in Table 3-3. As of 1 November 2006, there are no further early actions planned because the RODs for the MI and Dunn Field have been signed by DDC, USEPA, and TDEC.

#### 4.1.4 Remedy Selection Approach

Remedies for the restoration of the Depot have been selected in accordance with CERCLA, the NCP, and the FFA, as documented in the RODs for the MI (6 September 2001) and for Dunn Field (12 April 2004).

#### 4.2 COMPLIANCE PROGRAM STRATEGY

DDC no longer manages environmental compliance programs at the Depot. Contractors conducting environmental restoration activities are required to comply with the ARARs.

#### 4.2.1 Storage Tanks

DDC no longer maintains USTs or ASTs at the Depot.

#### 4.2.2 Hazardous Materials/Waste Management

DDC no longer manages hazardous materials/waste at the Depot. Contractors conducting environmental restoration activities are required to comply with the ARARs.
## INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

#### 4.2.3 Solid Waste Management

DDC no longer manages solid waste at the Depot.

#### 4.2.4 Polychlorinated Biphenyls

DDC no longer manages PCBs at the Depot.

4.2.5 Asbestos

DDC no longer manages ACM at the Depot.

4.2.6 Radon

DDC no longer manages radon at the Depot.

#### 4.2.7 RCRA Facilities

DDC no longer manages RCRA facilities at the Depot. See Sections 1.7 and 3.2.4 for more information regarding RCRA facilities.

#### 4.2.8 NPDES Permits

DDC no longer manages NPDES permits at the Depot. TDEC terminated the Depot's NPDES permit effective 29 June 2001.

#### 4.2.9 Oil/Water Separators

DDC no longer manages oil/water separators at the Depot. The remaining two oil/water separators remaining at the Depot have been transferred to DRC.

#### 4.2.10 Unexploded Ordnance

The Archives Search Report and investigation indicated no UXO at the Depot.

## INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

#### 4.2.11 Pesticides

The MI ROD included RA in the form of institutional controls across the MI, restricting residential use (including daycare operations) because of dieldrin levels. The Dunn Field ROD does not include an RA specific to pesticides.

#### 4.2.12 Lead-Based Paint

DDC no longer manages LBP at the Depot.

#### 4.3 NATURAL AND CULTURAL RESOURCES STRATEGY

DDC no longer manages natural or cultural resources at the Depot. For more information about the natural and cultural resources at the Depot, refer to the EA for Disposal and Reuse for the Depot completed in February 1998.

#### 4.3.1 Archaeological Resources

No archaeological resources were identified at the Depot.

#### 4.3.2 Historical Structures and Resources

DDC no longer manages historical structures or resources at the Depot. The TNSHPO determined that the 20 Typicals as well as three World War II vintage guard stations (Buildings 9, 22, and 23) were eligible for listing on the NRHP. No nomination has been made to date. AMC, the TNSHPO, and the Advisory Council on Historic Places entered into an MOA regarding these eligible buildings. DRC concurred with this MOA.

#### 4.3.3 Native American Resources

No Native American resources have been found at the Depot.

#### 4.3.4 Threatened and Endangered Species

No threatened and endangered species have been identified at the Depot.

## INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

#### 4.3.5 Sensitive Habitats

No sensitive habitats have been identified at the Depot.

4.3.6 Wetlands

No wetlands have been identified at the Depot.

4.3.7 Surface Waters

There are two bodies of water located at the Depot. Both bodies of water (Lake Danielson and a golf course pond) are used to store water for firefighting purposes. Lake Danielson, approximately 4 acres in area, is located in the northwest corner of the golf course, and the golf course pond is located in the northeast corner of the golf course.

#### 4.3.8 Floodplains

The Depot is located outside the 500-year floodplain.

#### 4.3.9 Paleontological Resources

No paleontological resources have been identified at the Depot.

#### 4.4 COMMUNITY INVOLVEMENT/STRATEGY

The Depot prepared a community relations plan dated June 1999 to facilitate communication among the Depot; other federal, state, or local agencies; and interested groups and other community residents concerning BRAC and environmental restoration activities at the Depot. DDC submitted the final post-ROD Community Involvement Plan in February 2005. This plan should ensure that all involved or interested parties are provided accurate, consistent information concerning related cleanup activities in a timely manner. The following goals of DDC's Community Involvement Plan and the associated activities will fulfill the CERCLA community involvement requirements, as well as provide for a proactive community involvement program:

• Fulfill information availability requirements by maintaining an updated Information Repository, working with the local media, providing executive summaries of environmental reports, and conducting regular public meetings.

## INSTALLATIONWIDE STRATEGY FOR ENVIRONMENTAL RESTORATION

- Build positive interest in the cleanup program by producing the EnviroNews newsletter twice a year, producing fact sheets as required, and maintaining the website and community information line. The Depot will also have public meetings as required to meet CERCLA requirements. Another option is Community Information Sessions to keep the community updated about the progress of the cleanup program throughout its completion.
- Building community awareness about community involvement opportunities as the environmental program progresses can be done through regular and consistent communications. Fact sheets and newsletters are key elements of this goal. In addition, reaching out to the media through news releases and backgrounders will assist with this goal.
- Maintain regular information channels through the RAB meetings, annual public meetings, newsletters, fact sheets, and other communications from the Depot.

## TABLE 4-1 ENVIRONMENTAL DOCUMENT STATUS

ACTIVITY	AGENCY	DRAFT REPORT	FINAL REPORT
PCB Survey	DDMT-W		1993
RI/FS Work Plans	CEHNC/CH2M Hill	1995	1995
Asbestos Survey	CEMVM/Pickering Inc.		January 1994
UST Survey	CEMVM/Pickering Inc.		January 1994
Radon Survey	ASCE-WP		March 1996
Interim Record of Decision (Groundwater at Dunn Field)	CEHNC/CH2M Hill		April 1996
Wetland Determination	CESWF/CELMM		July 1996
Lead-Based Paint Survey	CEMVM/Barge, Waggoner, Sumner & Cannon	December 1995	April 1996
Environmental Baseline Survey	CESAM/Woodward-Clyde	May 1996	November 1996
Environmental Assessment – Leasing	CESAM/Tetra Tech	August 1996	September 1996
Radiological Survey	DDRE	August 1996	September 1996
BRAC Cleanup Plan Version 1	CESAM/Woodward-Clyde	October 1996	November 1996
Section 106 Review	CESWF/HUD/Tennessee Historical Commission/TRC Moriah	October 1996	June 1997
Cultural/Natural Resources Surveys	CESWF	October 1996	November 1997
Environmental Assessment – Disposal	CESAM/Tetra Tech	November 1996	February 1998
BRAC Cleanup Plan Version 2	Memphis Depot Caretaker	September 1998	October 1998
Community Relations Plan	DDSP-F/Frontline	September 1998	June 1999
BRAC Cleanup Plan Version 3	Memphis Depot Caretaker	September 1999	October 1999
Main Installation RI Report	CEHNC/CH2M Hill	September 1999	January 2000
Main Installation FS Report	CEHNC/CH2M Hill	November 1999	July 2000
Main Installation Proposed Remedial Action Plan	CEHNC/CH2M Hill	April 2000	October 2000
BRAC Cleanup Plan Version 4	Memphis Depot Caretaker	September 2000	October 2000
Main Installation Record of Decision	CEHNC/CH2M Hill	September 2000	September 2001
BRAC Cleanup Plan Version 5	Memphis Depot Caretaker	September 2001	October 2001
Dunn Field RI Report	CEHNC/CH2M Hill	November 2001	July 2002
BRAC Cleanup Plan Versión 6	CEHNC/Cooper and Associates, Inc.		September 2002
BRAC Cleanup Plan Version 7	DDC/Labat-Anderson, Inc.		December 2003
Dunn Field FS Report	CEHNC/CH2M Hill	June 2002	May 2003
1st 5-Year Review Report	CEHNC/CH2M Hill	September 2002	January 2003

## **Defense Distribution Center (Memphis)**

Rev. 1 BRAC Cleanup Plan Version 10

## TABLE 4-1 ENVIRONMENTAL DOCUMENT STATUS

ACTIVITY	AGENCY	DRAFT REPORT	FINAL REPORT
Dunn Field Proposed Remedial Action Plan	CEHNC/CH2M Hill	November 2002	July 2003
Dunn Field Record of Decision	CEHNC/CH2M Hill	June 2003	April 2004
Main Installation Remedial Design	CEHNC/CH2M Hill	October 2003	August 2004
Dunn Field Disposal Sites Remedial Design	CEHNC/CH2M Hill	February 2004	April 2004
Dunn Field Disposal Sites Remedial Action Work Plan	AFCEE/MACTEC	May 2004	November 2004
Finding of Suitability to Transfer 4	AFCEE/MACTEC	October 2004	March 2005
BRAC Cleanup Plan Version 8	AFCEE/MACTEC	November 2004	March 2005
Post ROD Community Involvement Plan	AFCEE/MACTEC	December 2004	February 2005
Main Installation Remedial Action Work Plan	AFCEE/MACTEC	February 2005	September 2005
Early Implementation Interim RA Completion Report	AFCEE/MACTEC	July 2005	September 2005
BRAC Cleanup Plan Version 9	AFCEE/MACTEC	January 2006	July 2006
Dunn Field Disposal Sites RA Completion Report	AFCEE/MACTEC	May 2006	August 2006
BRAC Cleanup Plan Version 10	AFCEE/ e <sup>2</sup> M	December 2006	January 2007
Dunn Field Source Areas Final Remedial Design	CEHNC/CH2M Hill	January 2007	April 2007
Dunn Field Source Areas Remedial Action Work Plan – Fluvial SVE	AFCEE/ e <sup>2</sup> M	January 2007	June 2007
Dunn Field Source Areas RA Work Plan – Loess/Groundwater	AFCEE/ e <sup>2</sup> M	March 2007	September 2007
Dunn Field Revised Proposed Plan	AFCEE/ e <sup>2</sup> M	May 2007	November 2007
BRAC Cleanup Plan Version 11	AFCEE/ e <sup>2</sup> M	December 2007	January 2008
2nd 5-Year Review Report	AFCEE/ e <sup>2</sup> M	July 2007	January 2008
Dunn Field Off Depot Groundwater Final Remedial Design.	CEHNC/CH2M Hill	November 2007	March 2008
Dunn Field ROD Amendment	AFCEE/ e <sup>2</sup> M	July 2007	April 2008
Main Installation Interim RA Completion Report	AFCEE/ e <sup>2</sup> M	November 2007	June 2008
Dunn Field Off Depot Groundwater Remedial Action Work Plan	AFCEE/ e <sup>2</sup> M	December 2007	July 2008
Finding of Suitability to Transfer 5	AFCEE/ e <sup>2</sup> M	March 2008	September 2008
BRAC Cleanup Plan Version 12	AFCEE/ e <sup>2</sup> M	December 2008	January 2009
Preliminary Closeout Report	AFCEE/ e <sup>2</sup> M	November 2009	April 2010

## **Defense Distribution Center (Memphis)**

Rev. 1 BRAC Cleanup Plan Version 10

## TABLE 4-1 ENVIRONMENTAL DOCUMENT STATUS

ACTIVITY	AGENCY	DRAFT REPORT	FINAL REPORT
Dunn Field Off Depot Interim RA Completion Report	AFCEE/ e <sup>2</sup> M	January 2010	October 2010
Dunn Field Source Areas Interim RA Completion Report	AFCEE/ e <sup>2</sup> M	March 2010	November 2010
Finding of Suitability to Transfer 6	AFCEE/e <sup>2</sup> M	July 2010	January 2011
Final Closeout Report, including Notice of Intent to Delete	AFCEE/ e <sup>2</sup> M	January 2021	May 2021

#### Notes:

AFCEE <sup>,</sup> ASCE-WP. BRAC: CEMVM: CEHNC: CESAM: CESWF. DDC: DDC: DDMT:	Air Force Center for Environmental Excellence Administrative Support Center East-Environmental Branch Base Realignment and Closure Army Corps of Engineers, Memphis, Tennessee Army Corps of Engineers, Huntsville, Alabama Army Corps of Engineers, Mobile Alabama Army Corps of Engineers, Fort Worth, Texas Defense Distribution Center Defense Distribution Depot Memphis, Tennessee	DDRE: DLA: FS: HUD: OU: PCB: RA: RD: RI:	Defense Distribution Region East Defense Logistics Agency Feasibility Study Housing and Urban Development Operable Unit Polychlorinated Biphenyl Remedial Action Remedial Design Remedial Investigation
DDSP-F:	Memphis Depot Caretaker Division	UST:	Underground Storage Tank

## **SECTION FIVE**

## 5.0 ENVIRONMENTAL PROGRAM SCHEDULES

This section presents the Depot's schedule of anticipated activities for the environmental program. Environmental restoration and document review activities are summarized in Figure 5-1. This figure will be updated as the BCT makes decisions regarding sites and BRAC subparcels that require restoration.

## 5.1 ENVIRONMENTAL RESTORATION PROGRAM

This section provides the response schedules and fiscal year requirements for the environmental restoration program for the Depot.

#### 5.1.1 Response Schedules

The draft schedule is shown in Figure 5-1. Once finalized by the BCT following their review of this BCP, the schedule will be used to update the site schedules in the DSERTS. In order to track the environmental restoration process, scheduling strategies and timelines are prepared by DDC with input from the project team and the BCT so that all parties are involved in the process. The BCT and project team will review these schedules regularly to ensure that they are current, that activities are expedited whenever possible, and that reuse goals continue to be met.

The response schedules in Figure 5-1 include timeframes for RD, RA, and final closeout reports for the MI and Dunn Field (NPL site completion milestones are at the end of the Dunn Field schedule). Table 5-1 provides major milestones of the Depot environmental restoration program through FY09 for use as a quick reference for upcoming primary document reviews and the start dates of remedial activities.

## 5.1.2 Requirements by Fiscal Year

The financial requirements by fiscal year for the environmental program at the Depot are summarized in Table A-1 in Appendix A. These requirements will be further refined to reflect periodic updates to the cost-to-complete database that tracks funding requirements by site and is maintained by AFCEE for the Depot.

## **SECTION FIVE**

#### ENVIRONMENTAL PROGRAM SCHEDULES

## 5.2 COMPLIANCE PROGRAMS

DDC no longer manages compliance programs at the Depot; therefore, there are no fiscal requirements for compliance programs.

## 5.3 NATURAL AND CULTURAL RESOURCES

Natural and cultural resources at the Depot were assessed under the NEPA EA as discussed in Section 4.3. There are no fiscal requirements for natural and cultural resources.

## 5.4 BCT/PROJECT TEAM/RAB MEETING SCHEDULE

The BCT and the project team generally meet the third Thursday of specified months and by interim teleconferences when issues or data need to be resolved or discussed. The RAB meets the third Thursday of specified months when the BCT and project team have information to provide. Additional BCT and project team meetings are scheduled as necessary to facilitate the decision-making process.

Figure 5-1           Figure 5-1           Master Schedule           Master Schedule           Main Installation Reactability Study         Davison         Start           Main Installation Reactability Study         Davison         Start           Main Installation Reactability Study         Davison         Start         Davison           Main Installation Reactability Study         Davison         Start         Davison         Start         Davison           Main Installation Reactability Study         Davison         Davison         Davison         Start         Davison         Start         Davison         Davison         Davison         Davison           Main Installation (NI) Remedial Davison (RD)         Davison (RD)         Davison (RD)         Davison (RD)           Main Installation (RD) Reactability Action Topic (RD)         Davison (RD)         Davison (RD)           Main Installation (RD) Reactability Action Topic (RD)         Davison (RD)         Davison (RD)           Main Installation (RD) Reactapin <th colspa="&lt;/th"><th>Figure S1           Figure S1           Starting Support           Starting S</th><th>Figure 5-1           Biol         N         Isok Name         Data for         Frain           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 101700         Pri 101700         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 20170         Pri 101700         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 20170         Pri 7200         Pri 7200           100%         Main Installation Pointage 1         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 1         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200</th><th></th><th></th><th>9.</th><th></th><th>P</th><th></th><th></th><th></th><th>2</th><th></th><th></th><th>*</th><th>4</th><th></th><th>4</th><th></th><th>ω.</th><th></th><th>2</th><th>2</th><th></th><th></th><th></th><th>2</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th>Figure S1           Figure S1           Starting Support           Starting S</th> <th>Figure 5-1           Biol         N         Isok Name         Data for         Frain           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 101700         Pri 101700         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 20170         Pri 101700         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 20170         Pri 7200         Pri 7200           100%         Main Installation Pointage 1         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 1         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200</th> <th></th> <th></th> <th>9.</th> <th></th> <th>P</th> <th></th> <th></th> <th></th> <th>2</th> <th></th> <th></th> <th>*</th> <th>4</th> <th></th> <th>4</th> <th></th> <th>ω.</th> <th></th> <th>2</th> <th>2</th> <th></th> <th></th> <th></th> <th>2</th> <th></th>	Figure S1           Figure S1           Starting Support           Starting S	Figure 5-1           Biol         N         Isok Name         Data for         Frain           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Data for         Frain         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 101700         Pri 101700         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 20170         Pri 101700         Ser Pri 7200           100%         Main Installation Pointage 1         Pri 20170         Pri 7200         Pri 7200           100%         Main Installation Pointage 1         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 1         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200           100%         Main Installation Pointage 2         Pri 7200         Pri 7200         Pri 7200			9.		P				2			*	4		4		ω.		2	2				2																	
Figure 5-1           Add Name           Mark Installation Remedial Investigation         Bark Mark Installation Remedial Investigation           Mark Installation Remedial Investigation         Bark Mark Installation Remedial Action Plan (Propessed Plan)         Data Plan (Proposed Plan)         Data Plan (Plan)         Data Plan (Plan)         Data Plan (Plan)         Sata (Plan (Plan) (Plan) (Plan) (Plan) (Plan)         Sata (Plan (Plan) (Plan) (Plan) (Plan) (Plan) (Plan)         Sata (Plan)	Figure 5-1         Figure 5-1           adds         Master Schedule         Seri           adds         Main Installation Freesbally Study         Duration         Seri           100%         Main Installation Freesbally Study         Out 200         Seri         Seri           100%         Main Installation Freesbally Study         Ord         Installation Freesball         Seri         Seri           100%         Main Installation Freesball Neespalion         Ord         Installation Freesball         Serie         Serie         Serie           100%         Main Installation Remedial Investigation         Serie         Serie <td>Figure 5-1           Builton         Name         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent         Sent</td> <td></td> <td>Funish</td> <td>Sat 9/10/</td> <td>Fri 1/28/(</td> <td>Mon 7/31/</td> <td>Fri 10/13/</td> <td>Thu 9/6/0</td> <td>Sat 9/10/1</td> <td>Mon 6/10/0</td> <td>Sat 9/10/1</td> <td>Thu 7/21/0</td> <td>Wed 3/3/0</td> <td>Wed 2/25/0</td> <td>Fri 8/22/0</td> <td>Tue 8/10/0</td> <td>Thu 7/21/0</td> <td>Sat 9/10/1</td> <td>Mon 2/7/0</td> <td>Mon 9/12/0</td> <td>Thu 9/28/0</td> <td>Fri 3/24/0</td> <td>Fn 5/19/0</td> <td>Sun 4/30/0</td> <td>Fri 5/19/0</td> <td>Thu 4/20/0</td> <td>Man 5/1/0</td> <td>Tue 5/2/0</td> <td>Fri 9/1/0</td> <td>Thu 9/28/06</td> <td>Wed 9/6/06</td> <td>Mon 9/10/07</td> <td>Fri 6/27/08</td> <td>Fri 11/9/07</td> <td>Tue 1/8/05</td> <td>Sat 3/8/06</td> <td>Wed 5/7/08</td> <td>Fn 6/6/08</td> <td>Fri 6/27/08</td> <td>Fri 6/27/08</td> <td>Tue 9/9/08</td> <td></td>	Figure 5-1           Builton         Name         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent         Sent           1         0KK         Main installation (Mi Renedal Investigation.         Dension         Sent		Funish	Sat 9/10/	Fri 1/28/(	Mon 7/31/	Fri 10/13/	Thu 9/6/0	Sat 9/10/1	Mon 6/10/0	Sat 9/10/1	Thu 7/21/0	Wed 3/3/0	Wed 2/25/0	Fri 8/22/0	Tue 8/10/0	Thu 7/21/0	Sat 9/10/1	Mon 2/7/0	Mon 9/12/0	Thu 9/28/0	Fri 3/24/0	Fn 5/19/0	Sun 4/30/0	Fri 5/19/0	Thu 4/20/0	Man 5/1/0	Tue 5/2/0	Fri 9/1/0	Thu 9/28/06	Wed 9/6/06	Mon 9/10/07	Fri 6/27/08	Fri 11/9/07	Tue 1/8/05	Sat 3/8/06	Wed 5/7/08	Fn 6/6/08	Fri 6/27/08	Fri 6/27/08	Tue 9/9/08		
Figure 5.1           Task Name         Figure 5.1           Main Installation (wil) Ramedial Investigation.         Duration           Main Installation Reashing Study         S9579 a           Main Installation Reading Proposed Plan,         S9579 a           Main Installation Reading Action Plan (LUCP)         S957 a           Main Installation Reading States 2743 (Former PCP Dip VarUUST Area)         S957 a           Main Installation Reading Degin Reading Action (Ray Neuroid Plan)         S957 a           Main Installation Reading Action (Ru) Package         Main Installation Reading Action (Ru) Package         S957 a           Main Installation Reading Action (Ru) Package         Main Installation (Mil Rearedial Action (Ru) Package         S957 a           Main Installation Mile Readial Action (Ru) Package         Main Installation (Mile Readial Action (Ru) Package         S957 a           Main Installation Mile Readial Action Reading Action (Ru) Package         Main Installation (Mile Readial Action (Ru) Package         S957 a           Main Installation Mile Readin Action (Ru) Packa	Figure 5.1           %         Tack Name         Domain           46%         Muxi NISTALATION         Domain           46%         Muxi NISTALATION         Domain           46%         Muxi NISTALATION         Strate           46%         Muxi NISTALATION         Strate           46%         Muxi NISTALATION         Strate           100%         Main Installation Remeatial Investigation         Strate           100%         Main Installation Remeatial Investigation         Strate           40%         Main Installation Remeatial Installation Remeatial Installation Remeatial Installation Remeatial Installation Remeatial Design (RD) Work Plan         133 del           40%         Main Installation Remeatial Design (RD) Work Plan         133 del           40%         Main Installation Remeatial Design (RD) Work Plan         133 del           410%         Main Installation Remeatial Design (RD) Work Plan         133 del           410%         Main Installation Remeatial Design (RD) Work Plan         133 del           410%         Main Installation Remeatial Design (RD) Plant Plant         133 del           410%         Main Installation Remeatial Design (RD) Plant Plant         133 del           410%         Main Installation Remeatial Design (RD) Plant Plant         133 del	Figure S-1           Bit         %         Task Name         Danaker           Non         46%         Main Installation Proposed Remailial Action Plan, (Proposed Plan)         90%           No         40%         Main Installation Plan (Proposed Plan)         90%           100%         Main Installation Record of Decision         20%         90%         90%           100%         Main Installation Record of Decision         20%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%         90%		Start	Fri 1/28/00	Fri 1/28/00	Mon 7/31/00	Mon 8/7/00	Fri 2/16/01	Wed 11/28/01	Wed 11/28/01	Thu 12/20/01	Thu 12/20/01	Wed 6/18/03	Mon 8/19/02	Thu 12/20/01	Fri 8/8/03	Wed 8/11/04	Mon 3/1/04	Mon 3/1/04	Sun 3/21/04	Fri 3/24/06	Fri 3/24/06	Fri 3/24/06	Fri 3/24/06	Mon 4/24/06	Thu 4/20/06	Man 5/1/06	Tue 5/2/06	Tue 5/2/06	Thu 9/28/06	Sat 9/2/06	Mon 9/11/06	Tue 9/11/07	Tue 9/11/07	Sat 11/10/07	Wed 1/9/08	Wed 1/9/08	Thu 5/8/08	Sat 6/7/08	Fri 6/27/08	Tue 9/11/07		
Fig.         Main Installation (wil) Remedial Investigation Main Installation (wil) Remedial Investigation Main Installation (wil) Remedial Action Plan (Proposed Plan) Main Installation Record of Decision Main Installation Record of Decision Main Installation Remedial Decision Main Installation (RD) Packoge Main Installation (RD) Packoge Main Installation (RD) Packoge Main Installation (M) Remedial Action (RD) Decision Readial Decision (RD) Decision Remedial Action (RD) Decision Remedial Action (RD) Decision Remedial Action (RD) Decision Remedial Action (RD) Main Installation Action RD) Main Installation Remedial Action (RD) Decision Main Installation Action RD) Main Installation Mi Remedial Action RD (RD) Decision Main Installation Mi RD Outstruction Conference Mi RD Outstruction Internetion Notice to Proceed Remedial Action RD (RD) Decision Mi RD Outstruction Internetion Notice of Remedial Action RD (RD) Decision Mi RD Outstruction Internetion Notice of Remedial Action RD (RD) Decision Mi RD Outstruction Internetion Notice of Remedial Action RD (RD) Decision Mi RD Outstructin Inspection Notice of Remedial Action RD (RD) Decision Decisio	%         Task Name           46%         MAIN INSTALLATION           100%         Main installation (W) Remedial Investigation Main installation (W) Remedial Investigation 100%         Main installation (W) Remedial Investigation Main installation Record of Design (RD) Work Plan           100%         Main installation Record of Design (RD) Work Plan         Fig           40%         Main installation Record of Design (RD) Work Plan         Fig           40%         Main installation Record of Design (RD) Work Plan         Fig           40%         Main installation Remedial Design (RD) Work Plan         Fig           40%         Main Installation Remedial Design (RD) Packbage         Fig           100%         Main Installation Remedial Design (RD) Packbage         Fig           100%         Mil Enhanced Bloremediation Flan (LDP)         Fig           100%         Mil Rendeal Design (RD) Packbage         Fig           100%         Mil Rendeal Action (RA)         Fig           100%         Main Installation Remedial Action (RA)         Fig           100%         Main Installation Remedial Action (RA)         Fig           100%         Mil Rendeal Action (RA)         Fig           100%         Mil Rendeal Action (RA)         Fig           100%         Mil Rendeal Action (RA)         Fig </td <td>Fig.         Fig.           Image: Service of the of the of the of the of the service of the of</td> <td>ure 5-1 · Schedule</td> <td>Duration</td> <td>5979 d</td> <td>PO</td> <td>P O</td> <td>68 d</td> <td>203 d</td> <td>5401 d</td> <td>195 d</td> <td>5379 d</td> <td>1310 d</td> <td>260 d</td> <td>556 d</td> <td>611 d</td> <td>369 d</td> <td>345 d</td> <td>4577 d</td> <td>344 d</td> <td>541 d</td> <td>189 d</td> <td>P O</td> <td>57 d</td> <td>38 d</td> <td>26 d</td> <td>1 d</td> <td>101</td> <td>1 d</td> <td>123 d</td> <td>101</td> <td>50</td> <td>365 d</td> <td>291 d</td> <td>60 d</td> <td>P 09</td> <td>P 09</td> <td>120 d</td> <td>30 d</td> <td>21 d</td> <td>P 0</td> <td>365 d</td> <td></td>	Fig.         Fig.           Image: Service of the of the of the of the of the service of the of	ure 5-1 · Schedule	Duration	5979 d	PO	P O	68 d	203 d	5401 d	195 d	5379 d	1310 d	260 d	556 d	611 d	369 d	345 d	4577 d	344 d	541 d	189 d	P O	57 d	38 d	26 d	1 d	101	1 d	123 d	101	50	365 d	291 d	60 d	P 09	P 09	120 d	30 d	21 d	P 0	365 d		
	%         %           46%         46%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         00%           0%         0%           0%         0%           0%         0%           0%         0%           0%         0%           0%         0%	BCT         %           Item         46%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         100%           100%         0%           8CT         0%	Fig	Task Name	MAIN INSTALLATION	Main Installation (MI) Remedial Investigation	Main Installation Feasibility Study	Main Installation Proposed Remedial Action Ptan (Proposed Plan)	Main Installation Record of Decision	Main Installation Post ROD Activities	Main Installation Remedial Design (RD) Work Plan	Main Installation Remedial Design (RD)/Remedial Action Construction (RA-C)	Main Installation (MI) Remedial Design (RD)	MI Pre-Design Sampling at Sites 42/43 (Former PCP Dip Vat/UST Area)	MI Land Use Control Implementation Plan (LUCIP)	MI Enhanced Bioremediation Treatment (EBT) Pilot Test	MI Remedial Design (RD) Package	MI RD Public Briefing	Main Installation (MI) Remedial Action (RA)	Design Related Investigation	MI Remedial Action (RA) Work Plan	Main Installation Remedial Action (RA) Construction	Notice to Proceed	Remedial Action Planning	Subcontractor and Vendor Procurement	Utulties Survey	Preconstruction Conference	Mobilization and Site Preparation	Notice of Remedial Action Implementation	MI RA Construction (RA-C)	Final Construction Inspection	Demobilization and Site Restoration	MI RA-O (Injection) Year 1	Mi Interim RA Completion Report (with OPS)	Prepare & Submit Rev. 0 MI Interim RACR to BCT	BCT Review & Submit Comments on Rev 0 MI Interim RACR	Respond to BCT Comments on Rev. 0 MI Interim RACR	Prepare & Submit Rev. 1 Mi Interim RACR	BCT Review of Rev 1 MI Interim RACR w/ Concurrence	EPA Approval of the MI Interim RACR and OPS Determination	MI RA Complete / Remedy in Place	MI RA-O (Injection) Year 2		

		 883	226
			2 of 12
	inish		
-	Start		
Master Schedule	Duration		January 2007
	Hain Jacob Matter		(Memphis)
W Tank Name	76 Lask Name		stribution Center ( Seanup Plan Version 1
	142 Item		Defense Dis Rev. 1 BRAC C

0         51         4         Currents			Master	Schedul	ט	
0         1         0		BCT %	Task Name	Duration	Start	Finish
4         1         0.000         During diametal menujation         33         Turning         Marring         Marring           7         1         0.000         During diametal menujation         34         7	43	ŕ	5% DUNN FIELD	6977 d	Thu 10/18/01	Mon 11/23/20
N         Olight         Demind Reading State         Description         Descripro	1	ē	K Dunn Field Remedial Investigation	259 d	Thu 11/8/01	Wed 7/24/02
1         1	7	ē	K Dunn Field Sita 60 EE/CA	392 d	Mon 5/20/02	Sun 6/15/03
Bit         (100)         (	74	Į	% Dunn Field Feasibility Study	567 d	Thu 10/18/01	Thu 5/8/03
0         0	8	<u>1</u>	% Dunn Field Proposed Remedial Action Plan (Proposed Plan)	264 d	Fri 10/25/02	Tue 7/15/03
0         0	35		% Dunn Field Revised Proposed Remedial Action Plan	284 d	Fri 3/23/07	Mon 12/31/07
1         0.1         0.0 <th0.0< th=""> <th0.0< th=""> <th0.0< th=""></th0.0<></th0.0<></th0.0<>	æ	d.	% Prepare & Submit Revised Proposed Plan Rev. 0 to BCT	P 09	Fn 3/23/07	Mon 5/21/07
B         F         Obs         Teams         Team         Team<	4	BCT	% BCT Review & Submit Comments on Revised Proposed Plan Rev 0	P 09	Tue 5/22/07	Fri 7/20/07
0         01/1         01         01/1	8	d.	% Prepare & Submit Revised Proposed Plan Rev 1	60 d	Sat 7/21/07	Tue 9/18/07
0         1         0         No.	5	BCT (	% BCT Review of Revised Proposed Plan Rev. 1 w/ Concurrence	30 d	Wed 9/19/07	Thu 10/18/07
1         0pt         Final Model         Final Model         Final Model         Final Model         Final Model           2         P         P         P         P         P         Final Model         Final Model         Final Model           2         P         P         P         P         Final Model         Final Model         Final Model         Final Model           2         P         P         P         Final Model         Fina Model	•	4	% Submit Final Revised Proposed Plan	14 d	Fri 10/19/07	Тћи 11/1/07
2         0.00         Dum Find Resort O Decision         440         Fr 10100         Memory 20200           3         7         9         0         Dum Find Resort O Decision         341         Fr 10100         Memory 20200           1         6         0         Dum Find Resort O Decision         341         Fr 10100         Memory 20200           1         6         0         Decision Schemelican         0         8317001         Fr 20100           1         0         Decision Schemelican         0         8317000         Memory 10000           1         0         Decision Schemelican         0         8317000         Memory 10000           1         0         Decision Schemelican         0         0         Sa17000         Fra 13100           1         0         Decision Schemelican         0         0         Sa17000         Fra 33000           1         0         Decision Schemelican         0         0         Sa17000         Fra 33000           1         0         Decision Schemelican         Sa17000         Fra 33000         Fra 33000           1         0         Decision Schemelican         Sa17000         Fra 43000         Fra 43000           1 <td>-</td> <td></td> <td>% Public Comment/Meeting Period</td> <td>60 d</td> <td>Fri 11/2/07</td> <td>Mon 12/31/07</td>	-		% Public Comment/Meeting Period	60 d	Fri 11/2/07	Mon 12/31/07
5         0	2	10	% Dunn Field Record of Decision	438 d	Fri 1/31/03	Mon 4/12/04
6         7	5		% Dunn Field ROD Amendment	344 d	Tue 5/22/07	Tue 4/29/08
1         0.1         0.5         0.5         0.5         0.5         0.4         0.5         0.5         0.6	9	4	Prepare & Submit Rev. 0 ROD Amendment to BCT	60 d	Tue 5/22/07	Fri 7/20/07
0         0         Respond to GPT Commenta on few 0600 Amendment         0         word first         word first         word first         0         word first         word first         0         word first         word first         0         word	-	BCT C	% BCT Review & Submit Comments on Rev 0 ROD Amendment	60 d	Sat 7/21/07	Tue 9/18/07
9         10         Program & Summ Rev. 1 (ROD, Amendment)         100         Weid 71006         Fri 2008         Fri 200			% Respond to BCT Comments on Rev 0 ROD Amendment	P 09	Wed 9/19/07	Sat 11/17/07
0         Dist         Di	6	4	Prepare & Submit Rev. 1 ROD Amendment	120 d	Wed 9/19/07	Wed 1/16/08
I         P         0/b         Frequer Final KOD Amendment.         144         San 27/606         Fre 22606         Fre 22606           0         H         Process Final KOD Amendment.         001         I act 72005         Ture 422005           0         H         Executed DVn Final KOD Amendment.         901         I act 72019         Ture 422005           0         H         Dunn Final Pra-Dungy Investigations to Suppert Steread Remedial Alternatives         399         Mon 122039         Ture 423005           0         H         Dunn Final Pra-Dungy Investigations to Suppert Steread Remedial Alternatives         399         Mon 122039         Mon 112205           1         H         Dunn Final Pra-Dungy (DU Work Plan.         223         Mon 1122305         Mon 1122205         Mon 1122205           1         H         Dunn Final Disposal Ster Amedial Design (DU) Work Plan.         223         Mon 1122305         Mon 1122305         Mon 1122305           1         H         Dunn Final Disposal Ster Amedial Design (DU) Work Plan.         223         Mon 1122305         Mon 1122305         Mon 1122305           1         H         Dunn Final Disposal Ster Amedial Design (DU) Work Plan.         223         Sta 120106         Fina 32400         Fina 32400           1         DUN         D		BCT	% BCT Review of Rev. 1 ROD Amendment	30 d	Thu 1/17/08	Fri 2/15/08
2         0%         Process Final ROD Amendment Uncoup DIA, EPA A TDEC         061         Ear A 2016         Tota 47206         Tota 47206           1         0%         Descended Dum Field ROD Amendment         06         Teta 47206         Tota 47206         Tota 47206           1         10%         Dum Field Pact ROD Amendment         169         Tota 47206         Fie 47306         Sum 6806           1         10%         Dum Field Pact ROD Amendment         222         Mon 106603         Fie 47306         Sum 6806           1         10%         Dum Field Renedial Design (60) Work Plan         222         Mon 106603         Fiel 47306         Sum 6806           1         10%         Dum Field Bioposal Sites Remedial Action Construction (RAC)         223         Mon 106603         Fiel 47306           1         0%         Dum Field Bioposal Sites Remedial Action         893         Sa1 32004         Fiel 32005           1         0%         Dum Field Disposal Sites Remedial Action         893         Sa1 32004         Fiel 32005           1         0%         Dum Field Disposal Sites Remedial Action         893         Sa1 32004         Fiel 32005           1         0%         Dum Field Disposal Sites Remedial Action         893         Sa1 32004         Fiel 32005<	╘	٩	% Prepare Final ROD Amendment	14 d	Sat 2/16/08	Fri 2/29/08
0         0.06         Exacerted form Faid ROD Amendment         0         1 re. 472040         Ture 472040         <	-		Process Final ROD Amendment through DLA, EPA & TDEC	60 d	Sat 3/1/08	Tue 4/29/08
1         100%         Dum Field Pro-Diagn Investigations to Support Selecter Remedial Alternative         599         Mon 122000         Thu 9960           1         100%         Dum Field Pro-Diagn (Workingations to Support Selecter Remedial Alternative         599         Mon 12000         Fin 3/100         Sum 8960           1         100%         Dum Field Remedial Design (RD) Work Plan         219         Mon 10000         Fin 3/140           1         100%         Dum Field Remedial Design (RD) Work Plan         212         Mon 10000         Fin 3/140           1         100%         Dum Field Bipersel Sites Remedial Action Work Plan         212         Fin 3/1700         Fin 3/140           1         100%         Dum Field Bipersel Sites Remedial Action Work Plan         222         S 3/2000         Fin 3/140           1         100%         Dum Field Bipersel Sites Remedial Action Work Plan         222         S 3/2000         Fin 3/140           1         100%         Dum Field Bipersel Sites Remedial Action Inplementation         533         Wed 2/905         Fin 3/1406           1         100%         Dum Field Bipersel Sites Remedial Action Inplementation         533         Wed 2/905         Fin 3/1406           1         100%         Dum Field Bipersel Sites Remedial Action Inplementation         22	-	-	K Executed Dunn Field ROD Amendment	<b>P</b> 0	Tue 4/29/08	Tue 4/29/08
1         100%         Durn Field Post ROD Activities         118 d         Tue 417304         Sun 880A           1         100%         Undrike Durn Field Master Schedule Post ROD         118 d         Tue 41300         Sun 880A           1         100%         Unum Field RaredGla Design (EU)/Mendal Action         122 d         Mon 10/603         Fri 51/40A           1         100%         Durnn Field Disposal Sites Renedial Action         122 d         Fri 10/104         Sun 133005           1         100%         Durnn Field Disposal Sites Renedial Action         122 d         Fri 10/104         Sun 133005           1         100%         Durnn Field Disposal Sites Renedial Action         123 d         Wed 123003         Fri 17/104           1         100%         Durnn Field Disposal Sites Renedial Action         222 d         Sat 32004         Fri 87/305           1         100%         Durnn Field Disposal Sites Renedial Action         222 d         Sat 32006         Fri 87/305           1         100%         Durnn Field Disposal Sites Renedial Action         222 d         Sat 32004         Fri 87/306           1         100%         Durnn Field Disposal Sites Renedial Action         222 d         Sat 32006         Fri 87/306           1         100%         Durnn Fie	<u> </u>	100	6 Dunn Field Pre-Design Investigations to Support Selected Remedial Alternative	599 d	Mon 1/20/03	Thu 9/9/04
Image: Models Durn Flad Waster Schedule Post ROD         118 d         Tue 413/d6         Sun Bister           Image: Models Durn Flad Waster Schedule Post ROD         222 d         Mon 105/03         Fri 57400         Fri 57400           Image: Models Durn Flad Remedial Design (RD) Work Plan         222 d         Mon 105/03         Fri 57400         Fri 57400           Image: Model Remedial Design (RD) Work Plan         222 d         Worl 123/03         Mon 113/20         Mon 113/20           Image: Model Remedial Design (RD) Work Plan         122 d         Fri 57400         Fri 57400         Fri 57400           Image: Model Remedial Design (RD) Work Plan         222 d         Worl 123/03         Fri 57400         Fri 87400           Image: Model Remedial Action         223 d         Sat 32004         Fri 87300         Fri 87400           Image: Model Remedial Action         223 d         Sat 32004         Fri 87400         Fri 87400           Image: Model Remedial Action         232 d         Sat 32004         Fri 87400         Fri 87400           Image: Model Action         232 d         Sat 32004         Fri 87400         Fri 87400           Image: Model Action         232 d         Sat 32004         Fri 87400         Fri 87400           Image: Model Remedial Action         232 d         Sat 32004	-	100	K Dunn Field Post ROD Activities	118 d	Tue 4/13/04	Sun 8/8/04
1         100%         Dum Field Remedial Design (RU) Wort Plan         224         Mon 10600         Fi SY1404           1         24%         Dum Field Bisposal Sites Remedial Action Construction (RA-C)         2201         Wed 12300         Fi SY1404           1         100%         Dum Field Disposal Sites Remedial Action Construction (RA-C)         2201         Wed 12300         Fi SY1404           1         100%         Dum Field Disposal Sites Remedial Action Work Plan         122         Fi 107104         Sun 13306           1         100%         Dum Field Disposal Sites Remedial Action Work Plan         232         Fi 82506         Fi 82506           1         100%         Dum Field Disposal Sites Remedial Action Implementation         833         Med 29005         Fi 82506           1         100%         Dum Field Disposal Sites Remedial Action Implementation         833         Med 29005         Fi 82506           1         100%         Dum Field Disposal Sites Remedial Action Implementation         833         Med 29005         Fi 82506           1         100%         Mon Field Disposal Sites Remedial Action Implementation         334         Med 29005         Fi 82506           1         100%         Mon Sulface to Fioceed         0         Med 29905         Fi 82506 <td< td=""><td><math>\left  \right </math></td><td>100</td><td>6 Update Dunn Field Master Schedule Post ROD</td><td>118 d</td><td>Tue 4/13/04</td><td>Sun 8/8/04</td></td<>	$\left  \right $	100	6 Update Dunn Field Master Schedule Post ROD	118 d	Tue 4/13/04	Sun 8/8/04
1         24%         Dum Field Remedial Design (RU)Remedial Action Construction (RA-C)         6201 d         Wead 12/300         Fin 51/404           1         100%         Dum Field Disposal Sites Ramedial Action         164 d         Wead 12/303         Fin 51/404           1         100%         Dum Field Disposal Sites Ramedial Action         184 d         Wead 12/303         Fin 51/406           1         100%         Dum Field Disposal Sites Ramedial Action         889 d         Sat 32004         Fin 87/306           1         100%         Dum Field Disposal Sites Ramedial Action         889 d         Sat 32004         Fin 87/306           1         00%         Dum Field Disposal Sites Ramedial Action Implementation         833 d         Wed 29/05         Fin 91/16/06           1         00%         Dum Field Disposal Sites Ramedial Action Implementation         53 d         Wed 29/05         Fin 87/306           1         00%         Nucles Discosal Sites Ramedial Action Implementation         53 d         Wed 29/05         Fin 97/305         Fin 97/305           1         00%         Molds Officertation         11 d         Med 29/05         Med 29/05         Med 29/05           1         00%         Med 29/05         Med 29/05         Med 29/05         Med 29/05         Med 29/05<	-	100	// Dunn Field Remediat Design (RD) Work Plan	222 d	Mon 10/6/03	Fri 5/14/04
100%         Dum Field Disposal Slees Remedial Design         144 d         Wed 12/303         Fri Sr14/06           100%         Dum Field Disposal Slies RD Public Briefing         122 d         Fri 10/104         Sun 12005           100%         Dum Field Disposal Slies RD Public Briefing         122 d         San 3/2004         Fri 8/74/06           100%         Dum Field Disposal Slies Remedial Action         839 d         San 3/2004         Fri 8/2005           100%         Dum Field Disposal Slies Remedial Action Implementation         22 d         San 3/2006         Fri 8/2005           100%         Dum Field Disposal Slies Remedial Action Implementation         22 d         San 3/2006         Fri 8/2005           100%         Notice to Proceed         0 d         Wed 2/905         Fri 8/2005           100%         Notice to Froceed         1 d         Thu 3/305         Fri 8/2005           100%         Notice to RN implementation         3 d         Med 2/905         Med 2/905           100%         Disposal Slies RA Construction (RA-C) - Excavation, Transportation and         3 d         Thu 3/1705         Wed 2/905           100%         Disposal         Inte S/206         Thu 3/1705         Wed 2/905         Med 4/1905           100%         Disposal         Inte S/206	-	24	6 Dunn Field Remedial Design (RD)/Remedial Action Construction (RA-C)	6201 d	Wed 12/3/03	Mon 11/23/20
0       100%       Durn Field Obsposal Sites RD Public Briefing       122 d       Fri 101/104       Sun 1/30/05         0       100%       Durn Field Obsposal Sites Remedial Action       889 d       Sat 3/20/04       Fri 8/23/06         0       100%       Durn Field Obsposal Sites Remedial Action Work Plan       242 d       Sat 3/20/04       Fri 8/23/06         0       100%       Durn Field Disposal Sites Remedial Action Work Plan       242 d       Sat 3/20/04       Fri 8/23/06         0       100%       Durn Field Disposal Sites Remedial Action Mork Plan       242 d       Sat 3/20/04       Fri 8/23/06         0       100%       Nolce to Proceed       0       Wed 29/05       Fri 8/23/06       Fri 8/23/06         0       100%       Nolce to Proceed       0       Wed 29/05       Fri 8/23/06       Fri 8/23/06         0       100%       Nolce to Proceed       0       Wed 29/05       Fri 8/23/06       Fri 8/23/06         0       100%       Nolce to Proceed       0       Wed 29/165       Fri 8/23/06       Fri 8/23/06         0       100%       Nolce to Proceed       0       Med 29/165       Fri 8/23/06       Fri 8/23/06         0       100%       Nolce to Proceed       1       Mon 3/14/05       Med 3/1		10	6 Dunn Field Disposal Sites Remedial Design	164 d	Wed 12/3/03	Fri 5/14/04
Indication     100%     Durn Field Disposal Sites Remedial Action     889 d     Sat 3/20/04     Fri 8/25/06       Indication     Durn Field Disposal Sites Remedial Action Work Plan     242 d     Sat 3/20/04     Fri 8/25/06       Indication     Durn Field Disposal Sites Remedial Action Work Plan     242 d     Sat 3/20/06     Fri 8/25/06       Indication     Durn Field Disposal Sites Remedial Action Mork Plan     242 d     Sat 3/20/06     Fri 8/25/06       Indication     Notice to Froceed     0 d     Wed 2/9/05     Fri 8/25/06       Indication     Polone     Notice to Froceed     0 d     Wed 2/9/05     Fri 8/25/06       Indication     Polone     Notice to Froceed     0 d     Wed 2/9/05     Fri 8/25/06       Indication     Polone     Notice to Froceed     0 d     Wed 2/9/05     Fri 8/25/05       Indication     Pite Propriation     3 d     Mon 3/14/05     Wed 2/9/05       Indication     Notice of RA Implementation     1 d     Mon 3/14/05     Wed 2/9/05       Indication     Notice of RA Implementation     3 d     Thu 3/17/05     Wed 2/9/05       Indication     Notice of RA Implementation     3 d     Thu 3/17/05     Wed 2/9/05       Indication     Notice of RA Implementation     3 d     Thu 3/17/05     Wed 2/9/05       Indica	-	100	A Dunn Field Disposal Sites RD Public Briefing	122 d	Fri 10/1/04	Sun 1/30/05
100%     Durnn Field Disposal Sites Remedial Action Work Plan     242     Sat 3/20/04     Tue 11/16/04       100%     Durnn Field Disposal Sites Remedial Action implementation     563     Wed 2/9/05     Fit 8/25/06       100%     Notice to Proceed     0     Wed 2/9/05     Wed 2/9/05       100%     Pre-Construction Conference     1     1     Thu 3/3/05     Wed 2/9/05       100%     Mobilization / Site Preparation     3     1     Ned 2/9/05     Wed 2/9/05       100%     Mobilization / Site Preparation     3     1     Ned 2/9/05     Wed 2/9/05       100%     Notice of RA Implementation     1     1     Mon 3/14/05     Wed 2/9/05       100%     Disposal     Ite S/200     Mon 3/14/05     Wed 2/9/05     Mon 3/14/05       100%     Disposal     Ite Reversion     33     1     1     Wed S/4/05       100%     Disposal     Intel Excavation     33     1     1     1       100%     Disposal     Intel Excavation     33     1     1     8       100%     Disposal     Intel Excavation     33     1     1     1     1       100%     Disposal     Intel Excavation     1     1     1     1     1       100%     Disposal	-	100	6 Dunn Field Disposal Sites Remedial Action	P 688	Sat 3/20/04	Fri 8/25/06
Interference         Durn Field Disposal Sites Remedial Action Implementation         56.3 d         Wed 219/05         Fri 8/25/06           Interference         100%         Notice to Proceed         0 d         Wed 219/05         Wed 219/05         Wed 219/05           Interference         100%         Pre-Construction Conference         1 d         Thu 3/3/05         Wed 219/05         Wed 219/05           Into %         Mobilization / Site Preparation         3 d         Mon 3/14/05         Wed 3/14/05         Mon 3/14/05           Into %         Notice of RA Implementation         3 d         Mon 3/14/05         Mon 3/14/05         Mon 3/14/05           Into %         Disposal         Into %         Into 3/14/05         Mon 3/14/05         Mon 3/14/05           Into %         Disposal         Intuel Excavation         3 d         Thu 3/17/05         Mon 3/14/05           Into %         Disposal         Intuel Excavation         3 d         Thu 3/17/05         Mon 3/14/05           Into %         Disposal         Intuel Excavation         3 d         Thu 3/17/05         Mon 3/14/05           Into %         Disposal         Intuel Excavation         3 d         Thu 3/17/05         Mon 3/14/05           Into %         Dinto %         Into %         Wed 5	<u> </u>	100	6 Dunn Field Disposal Sites Remedial Action Work Plan	242 d	Sat 3/20/04	Tue 11/16/04
Index         Notice to Proceed         Notic		100	6 Dunn Field Disposal Sites Remedial Action Implementation	563 d	Wed 2/9/05	Fri 8/25/06
100%         Pre-Construction Conference         1         Thu 3/305         Thu 3/305           P         100%         Mobilization / Site Preparation         3         Mon 3/14/05         Wed 3/16/05           P         100%         Notice of RA Implementation         1         Mon 3/14/05         Wed 3/16/05           P         100%         Notice of RA Implementation         1         Mon 3/14/05         Wed 3/16/05           P         100%         Disposal Sites RA Construction (RA-C) - Excavation, Transportation and 399 d         Thu 3/17/05         Wed 4/19/06           100%         Disposal         Initial Excavation         88 d         Thu 3/17/05         Wed 5/4/05           100%         Planning and Change Orders         143 d         Wed 5/4/05         Fri 9/23/05	$\vdash$	100	6 Notice to Proceed	0 d	Wed 2/9/05	Wed 2/9/05
100%         Mobilization / Site Preparation         3 d         Mon 3/14/05         Wed 3/16/05           P         100%         Notice of RA implementation         1 d         Mon 3/14/05         Mon 3/14/05         Mon 3/14/05           P         100%         Disposal         Notice of RA implementation         1 d         Mon 3/14/05         Mon 3/14/05         Mon 3/14/05           P         100%         Disposal         399 d         Thu 3/17/05         Wed 4/19/06           P         100%         Initial Excavation         399 d         Thu 3/17/05         Wed 4/19/06           P         100%         Initial Excavation         48 d         Thu 3/17/05         Tue 5/3/05           P         100%         Planning and Change Orders         143 d         Wed 5/4/05         Fri 9/23/05		100	6 Pre-Construction Conference	10	Thu 3/3/05	Thu 3/3/05
P         100%         Notice of RA Implementation         1 d         Mon 3/14/05         Mo		100	6 Mobilization / Site Preparation	3d	Mon 3/14/05	Wed 3/16/05
100%     Disposal Sites RA Construction (RA-C) - Excavation, Transportation and 399 d     Thu 3/17/05     Wed 4/19/05       100%     Initial Excavation     48 d     Thu 3/17/05     Tue 5/3/05       100%     Planning and Change Orders     48 d     Thu 3/17/05     Tue 5/3/05       100%     Planning and Change Orders     143 d     Wed 5/4/05     Fri 9/23/05	-	P 100	6 Notice of RA Implementation	1 d	Mon 3/14/05	Mon 3/14/05
Initial Excavation     48 d     Thu 3/17/05     Tue 5/3/05       Initial Excavation     100%     Planning and Change Orders     143 d     Wed 5/4/05     Fri 9/23/05       Initial Excavation     Initial Excavation     143 d     Wed 5/4/05     Fri 9/23/05       Initial Excavation     Initial Excavation     Initial Excavation     Initial Excavation		100	Disposal Sites RA Construction (RA-C) - Excavation, Transportation and Disposal	399 d	Thu 3/17/05	Wed 4/19/06
Image: Index in the second s		100	6 Initial Excavation	48 d	Thu 3/17/05	Tue 5/3/05
aniary 2007	-	100	Planning and Change Orders	143 d	Wed 5/4/05	Fri 9/23/05
	ense	Distribu	ion Center (Memphis)	2002 /0		

Marking Information         Marking Ma		r																																					8	8;	3	2
Ital Kinking         Ital Kinkin         Ital Kinking         Ital Kinking </td <td></td>																																										
Master Schedule           Task Name         Master Schedule           Task Name         Notice b Proceed         brunkon         sent           Task Name         Notice b Proceed         brunkon         sent           RAVPP Addencium No 1, Rew. 1         128 d         tre 10/103           Rever 1 0: Exclavation, Backal and Renoration         10 d         how 22708           Stens 1 - 0: Exclavation, Backal and Renoration         10 d         how 22708           Prevent & Submit Rev 1 Disposal Stile RACR         11 d         wed 43900           Demochilization         Demochilization         11 d         wed 43000           Demochilization         Demochilization		Finsh	5 Tue 10/11/05	5 Mon 2/13/06	) Tue 2/21/06	Wed 3/8/06	Wed 4/19/06	Wed 3/8/06	5 Fri 8/25/06	Tue 5/2/06	Mon 7/10/06	Mon 7/10/06	Mon 7/31/06	Fn 8/25/06	Fri 8/25/06	Fri 8/25/06	Fri 7/1/05	Mon 9/19/05	Mort 4/30/07	Mon 4/30/07	Tue 2/1/05	Wed 4/19/06	Sun 6/18/06	Mon 7/31/06	Mon 9/25/06	Tue 11/14/06	Sun 1/14/07	Fri 3/16/07	Mon 4/30/07	Sun 12/3/06	Fri 2/17/06	Tue 4/18/06	Sun 12/3/06	Mon 4/30/07	Tue 1/18/05	Mon 2/7/05	Thu 12/15/05	Wed 4/19/06	Mon 7/3/06	Mon 6/19/06	Fri 9/15/06	
Task Name         Master Schedule           Task Name         Nuce to Proceed         Nuce Proceeto         Nuce to Proceeto         Nuce		Start	Tue 10/11/05	Tue 10/11/05	Tue 2/14/06	Mon 2/27/06	Wed 4/19/06	Wed 3/8/06	Thu 4/20/06	Thu 4/20/06	Wed 5/3/06	Fri 6/30/06	Tue 7/11/06	Tue 8/1/06	Fri 8/25/06	Fri 8/25/06	Mon 3/1/04	Mon 11/1/04	Mon 5/24/04	Mon 5/24/04	Mon 5/24/04	Tue 2/7/06	Thu 4/20/06	Mon 6/19/06	Tue 8/1/06	Tue 9/26/06	Wed 11/15/06	Mon 1/15/07	Sat 3/17/07	Thu 12/22/05	Thu 12/22/05	Sat 2/18/06	Wed 4/19/06	Tue 9/21/04	Tue 9/21/04	Wed 1/19/05	Thu 12/15/05	Mon 1/2/06	Thu 4/20/06	Mon 6/19/06	Tue 7/4/06	
Task Name     Master       Task Name     Notes to Proceed       RAWP Addendum No 1, Rev. 1     BAWP Addendum No.1, Rev. 1       RAWP Addendum No 1, Rev. 1     BCI Review and Approval on RAWP Addendum No.1, Rev. 1       Sites 3 + 10 Excertation     Demodification       Prepare & Submit Rev 1 Disposal Sites RACR     Respond to BCT       BCI Review a Submit Rev 1 Disposal Sites RACR     Respond to BCT       Respond to BCT     Respond to BCT       Respond to BCT     Respond to BCT       Respond to BCT     Respond to BCT       Dumm Field Comments on Rev. 1 Disposal Sites RACR     Respond to BCT       Respond to BCT     Rest Name       Dum Field Comments on Rev. 1 Disposal Sites RACR       BCT Review of Rev. 1 Disposal Sites RACR       BCT Review of Rev. 1 Disposal Sites RACR       Dum Field Comments on Rev. 1 Disposal Sites RACR       BCT Review of Rev. 1 ULOF       Dum Field Land Use Control Implementation Plan (LUCP)       Dum Field Land Use Control Implementation Rev. 1 ULOF       Respond to BCT       Dum Field Land Use Control Implementation Rev. 1 ULOF       Respond to Rev. 1 ULOF       Respond to Rev. 1 ULOF       Respond Rev. 1 ULOF	Schedule	Duration	. P ()	126 d	9 q	10 đ	10	14	128 d	13 đ	69 d	110	21 d	25 d	PO	PO	488 d	323 d	1072 d	1072 d	254 d	72 d	90 q	43 d	56 d	50d	61 d	61 d	45 d	347 d	58 d	P 09	229 d	952 d	120 d	20 d	1d	108 d	75 d	10	74 d	
▌▌▎▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕▕	Master	Task Name	Notice to Proceed	RAWP Addendum No. 1, Rev. 1	BCT Review and Approval on RAWP Addendum No.1, Rev. 1	Sites 3 + 10 Excavation, Backfill and Restoration	Pre-Final Construction Inspection	Demobilization	Dunn Field Disposal Sites Final RA Completion Report	Prepare & Submit Rev 0 Disposal Sites RACR to BCT	BCT Review & Submit Comments on Rev 0 Disposal Sites RACR	Respond to BCT Comments on Rev. 0 Disposal Sites RACR	Prepare & Submit Rev 1 Disposal Sites RACR	BCT Review of Rev. 1 Disposal Sites RACR w/ Concurrence	EPA Approval of the Final Disposal Sites RACR	Disposal Sites RA Complete / Remedy in Place	Dunn Field Groundwater Design Related Investigation	Early Implementation of Selected Remedy	Dunn Field Source Areas (SVE & ZVI) Remedial Design	Dunn Field Land Use Control Implementation Plan (LUCIP)	Prepare Rev. 0 LUCIP with Amy/DLA	Submit Rev 0 LUCIP to BCT with Intermediate Source Areas RD Report	BCT Review & Submit Comments on Rev 0 LUCIP	Respond to BCT Comments on Rev 0 LUCIP	Prepare & Submit Rev 1 LUCIP	BCT Review of Rev 1 LUCIP	Prepare & Submit Rev 2 LUCIP	BCT Approval of Rev 2 LUCIP	Final Dunn Field LUCIP (Approved by Army & EPA)	Dunn Field Remedial Design Investigation (RDI)	Prepare and Submit RDI Technical Memorandum (TM) Rev 0 to BCT	BCT Review and Submit Comments on RDI TM	Prepare and Submit RDI TM Rev 1 to BCT	Dunn Field Source Areas RD Report	Prepare & Submit Preliminary (30%) Source Areas RD Report	BCT Review & Submit Comments on Preliminary (30%) Source Areas RD Rep	Review of Source Areas RDI Data and RD	Prepare and Submit Intermediate (60%) Source Areas RD Report	BCT Review & Submit Comments on Intermediate (60%) Source Areas RD Rec	On-Board Review of Intermediate (60%) Source Areas RD Report Comments	Prepare & Submit Pre-Final (90%) Source Areas RD Report	
		ltem –			BCT					٩	BCT		٩	BCT	4							S	BCT		S	BCT	S	BCT	S		S	BCT	ŝ		S	BCT		s	BCT		s	
		≙	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	337	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	

	Finish	Tue 11/14/06	Sun 1/14/07	Fn 3/16/07	Sal 4/14/07	Mon 4/30/07	Mon 4/30/07	Wed 5/30/07	Sun 7/29/07	Wed 5/30/07	Mon 7/30/12	Sat 6/2/07	Sat 1/27/07	Wed 3/28/07	Sun 4/22/07	Sat 5/12/07	Sat 6/2/07	Sat 6/2/07	Wed 7/30/08	Mon 4/2/07	Sun 4/29/07	Thu 5/3/07	Fn 5/4/07	Sun 7/15/07	Sun 4/29/07	Sun 4/22/07	Thu 6/28/07	Thu 5/31/07	Sun 6/10/07	Sun 7/15/07	Wed 7/30/08	Sat 6/30/07	Mon 7/16/07	Mon 7/30/07	Thu 8/2/07	Wed 7/30/08	Mon 9/24/07	Wed 3/28/07	Sun 5/27/07	Wed 7/11/07
	Start	Sat 9/16/06	Wed 11/15/06	Mon 1/15/07	Sat 3/17/07	Sun 4/15/07	Mon 4/30/07	Tue 5/1/07	Thu 5/31/07	Tue 5/1/07	Wed 11/29/06	Wed 11/29/06	Wed 11/29/06	Sun 1/28/07	Thu 3/29/07	Thu 3/29/07	Sun 5/13/07	Sat 6/2/07	Mon 4/2/07	Mon 4/2/07	Mon 4/16/07	Thu 5/3/07	Fri 5/4/07	Mon 4/16/07	Mon 4/16/07	Mon 4/16/07	Fri 5/4/07	Fri 5/4/07	Fri 6/1/07	Mon 7/9/07	Sun 6/3/07	Sun 6/3/07	Sun 6/17/07	Tue 7/17/07	Tue 7/31/07	Tue 7/31/07	Sun 1/28/07	Sun 1/28/07	Thu 3/29/07	Mon 5/28/07
Schedule	Duration	60 d	61 d	61 d	29 d	16 d	ΡĐ	30 d	P 09	30 d	2071 d	185 d	P 09	90 q	25 d	45 d	21 d	P O	486 d	PO	14 d	1 d	1 d	91 d	14 d	p 2	56 d	28 d	10 d	P 2	424 d	28 d	30 d	14 d	3d	366 d	240 d	р 09	60 d	45 d
Master	Task Name	BCT Review and Submit Comments on Pre-Final (90%) Source Areas RD Rep	Prepare & Submit Final (100%) Source Areas RD Report, Rev. 0	BCT Review and Submit Comments on Final Source Areas RD Report, Rev 0	Prepare and Submit Final Source Areas RD Report, Rev. 1	BCT Approval of Final Source Areas RD Report, Rev. 1	Final Source Areas RD Report	Notice of Land Use Restrictions Development	Notice of Land Use Restrictions Submittal	Dunn Field Source Areas RD Public Briefing	Dunn Field Source Areas Remedial Action	Dunn Field Fluvial SVE Remedial Action Work Plan	Prepare & Submit Rev 0 Fluvial SVE RAWP to BCT	BCT Review & Submit Comments on Fluvial SVE Rev. 0 RAWP	Respond to BCT Comments on Rev. 0 Fluvral SVE RAWP	Prepare & Submit Rev 1 Fluvial SVE RAWP	BCT Review of Rev. 1 Fluvial SVE RAWP w/Concurrence	Final Fluvial SVE RAWP	Dunn Field Fluvial SVE Remedial Action Implementation	Notice to proceed	Preconstruction Conference	Mobilization	Notice of Fluwal SVE RA Implementation	Site Clearing and and Baseline Sampling	Site Preparation & Utility Clearance	Survey Groundwater and SVE Well Locations	Remove Sol/Rubble Pile in Treatment Area 3	Install New Monitoring Weils	Collect Baseline GW Samples	Abandon PVC Monitoring Wells in Treatment Areas	Fluvial SVE - Install and Year 1	Install Fluvial SVE Wells and Vapor Monitoring Points	Construct SVE Control Building & Install Prping	Test and Calibrate Fluwal SVE System	Demobilization for Fluvial SVE Construction	Fluvial SVE Year 1 Operation	Dunn Field Loess/Groundwater Remedial Action Work Plan	Prepare & Submit Rev. 0 Loess/Groundwater RAWP to BCT	BCT Review & Submit Comments on Loess/Groundwater Rev 0 RAWP	Respond to BCT Comments on Rev. 0 Loess/Groundwater RAWP
	*	%0	%0	%0	%0	%0	80	%0	%0	×0	%0	*0	%0	%0	%0	%0	%0	<b>%</b> 0	×0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	×0	%0	%0	%0	%0	%0	%0	%0	%0	%0
	BCT Item	BCT	٩.	BCT	۵.	BCT	а.						۹.	BCT		٩	BCT	ď							L													۵.	BCT	
	_	375	376	377	378	379	380	381	382	383	384	385	386	387	368	389	390	391	392	393	394	395	396	397	398	565	400	401	402	403	104	105	901	107	8	60	10	E	12	13

0         Figure 61           0         1         x         Induce         Induce         Induce           0         1         x         Induce         Induce         Induce         Induce           0         1         1         1         Induce         Induce         Induce         Induce         Induce           0         1         1         1         1         Induce         Induce </th <th>["""</th> <th>T</th> <th></th> <th>0</th> <th>Ø,</th> <th>ປ</th> <th>_</th>	["""	T																																					0	Ø,	ປ	_
Pigne state         Figure state         Figure state           0         21         34         344         347           11         21         24         344         347         347           11         21         24         344         347         347           11         21         24         344         347         347           11         24         24         347         347         347           11         24         24         347         347         347           11         24         24         247         247         347           11         24         24         247         247         247           11         24         247         247         247         247           11         24         247         247         247         247           11         24         247         247         247         247           11         24         247         247         247         247           11         24         247         247         247         247           11         24         247         247         247<	1																																									
International         Figure 5-1           0         60         3         4         3         4         3           01         7         6         5         3 <td></td>																																										
No.         Figure S-1           10         10         5         Antiviro         Sant National Activiro           11         10         10         10         Sant National Activiro         Sant National Activiro           11         10         10         10         Sant National Activiro         Sant National Activiro         Sant National Activiro           11         10         10         10         Sant National Activiro         Sant National Activirus         S																																										
International         Figure 54           10         50         5         Antivine         300         Figure 54           11         10         10         10         100         300         Figure 54           11         10         10         100         100         300         500         500           11         10         10         10         100         100         100         500         500           11         10         10         10         10         100         100         500         500           11         10         10         10         100         100         100         500         500           11         10         10         10         10         100         100         100         100         100         100         100         100         100         100         100         100         100         100																																										
0         81/1         Figure 5-1           0         81/1         5         Antivine         Antivine           01         9         9         9         Antivine         Antivine           01         9         9         9         Antivine         Antivine           01         9         9         Finance         Antivine         Antivine           01         9         9         Finance         Antivine         Antivine           01         9         9         Finance         Antivine         Antivine           01         9         9         Antivine         Antivine         Antivine           01         9         9         Motivine         Antivine         Antivine           01         9         9         Motivine         Antivine         Antivine           01         9         9         Motivine         Antivine         Antivine           01         9         9         4         Antivine         Antivine           01         9         9         9         9         Antivine           01         9         9         9         9         9         10																																										
D         Bit International Bit         Fragme Size Fragme Size         Fragme Size         Fragme Size         Fragme Size           0         Bit         Size																																										
D         BCI         Y         Restruction         Part         Free           10         BCI         S         Interface S-1         Annote         Sum									- <b>-</b>			. <u></u>																														
Dial         Dial         Second Secon		inish	al 8/25/07	on 9/24/07	on 9/24/07	on 1/11/10	Fri 8/31/07	-n 9/21/07	on 9/24/07	at 10/6/07	\$0/2/01 p	t 11/24/07	1 10/13/07	9 10/16/07	9 10/30/07	le 11/6/07	70/6/11 u	11/16/07	11/21/07	11/24/07	n 12/1/08	d 12/5/07	12/12/07	u 6/26/08	n 2/18/08	d 5/14/08	u 5/29/08	u 6/26/08	11/10/08	90/0£/1 p	n 9/28/08	10/13/08	11/10/08	11/24/08	n 12/1/08	01/11/10	n 12/1/08	on 1/5/09	n 1/19/09	un 3/1/09	un 4/5/09	
Interpretation         Figure 5-1           10         B01			07	07 M	07 M	07 Mc	07	07	07 Mc	07 S	27 We	07 Sa	07 Sa	07 Tue	77 Tue	1 L	7	)7 Fr	07 Wed	07 Sat	7 Mo	7 We	7 Wed	4L	17 Mo	B We	8	е Ч	6 Mon	8 We	8 Su	B Mon	8 Mon	B Mon	8 Moi	8 Moi	8 Mo	8 M	9 Moi	S 6	5 6	
Image:		Start	Mon 5/28/	Sun 8/26/	Mon 9/24/	Fri 8/31/	Fri 8/31/	Sat 9/15/	Tue 9/11/	Tue 10/2#	Wed 10/3/	Sun 10/7/	Sun 10/7/	Sun 10/14/	/ed 10/17/(	/ed 10/31/0	Wed 11/7/0	Sat 11/10/(	Sat 11/17/0	hu 11/22/0	Sun 10/7/C	Sun 10/7/0	Thu 12/6/0	hu 12/13/0	hu 12/13/0	Tue 2/19/0	Thu 5/15/0	Fri 5/30/0	Fri 6/27/0	Fn 6/27/0	Thu 7/31/0	Vian 9/29/0	ue 10/14/0	ue 11/11/0	ue 11/25/0	ue 11/25/0	ue 11/25/0	Tue 12/2/0	Tue 1/6/0	Aon 2/23/0	Mon 3/2/0	
Figure 5         Figure 5           11         10         10         10         10         10         10           110         10         10         10         10         10         10         10           110         10         10         10         10         10         10         10           110         10         10         10         10         10         10         10         10           111         10	-1 edule	tion	- P 06	9 Q	PO	65 d	14	2 d	14 d	5 d	PF	49 d	7 d	3 d	14 d M	M .P 2	3 d	7 d	5 d	3 d 1	22 d	60 d	7 d	97 d T	68 d T	86 d	15 d	28 d	37 d	34 d	90 q	15 d	28 d T	14 d T	1 P 2	13 d T	7 d T	35 d	14 d	7 d	55 d	
Pictor         Statistical           11         D         District         %         Taak Name         Mast Name           11         D         District         %         Taak Name         Mast Name           11         D         District         %         Taak Name         Mast Name           11         D         District         BCT Review of Rev. 1 Loses/Groundwater RAVP         Wicknomene           11         D         District         BCT Review of Rev. 1 Loses/Groundwater RAVP         Wicknomene           11         D         District         BCT Review of Rev. 1 Loses/Groundwater RAVP         Wicknomene           11         D         District         District         BCT Review of Rev. 1 Loses/Groundwater RAVP           12         D         District         District         BCT Review of Rev. 1 Loses/Groundwater RAVP           13         D         District         District         BCT Review of Rev. 1 Loses/Groundwater RAVP           14         D         District         District         BCT Review of Rev	gure 5-	Dura							-								-				4			Ē			-		<u>+</u>							4						
ID         BCT ID         %         Task Name           141         P         0%         Frehark & Subrul Rev I. LossidGroundwater FAWP           141         P         0%         Ercl Roview of Rev. I. LossidGroundwater FAMP           141         P         0%         Ercl Roview of Rev. I. LossidGroundwater FAMP           141         P         0%         Dum Field LossidGroundwater Ramedial Action Implementation           141         P         0%         Motion to conference           141         0%         Motion to conference           142         0%         Motion for LossidGroundwater Ramedial Action Implementation           143         0%         Motion to conference           144         0%         Motion of LossidGroundwater Ramedial Action Implementation           143         0%         Motion of LossidGroundwater Ramedia           144         0%         Motion of LossidGroundwater Ramedia           143         0%         Economican Conference           144         0%         Motion of Contracterization Samples           144         0%         Economican Conference           145         0%         Motional Economican Conference           145         0%         Econotication Conference <td< td=""><td>Masto</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Masto																																									
ID         BCT         %         Task Name           141         P         0%         Freibard & Submi Rev 1 Loss/Groundwater RAWP WC           141         P         0%         Freibard & Submi Rev 1 Loss/Groundwater RAWP WC           141         P         0%         Freibard & Review of Rev. 1 Loss/Groundwater RAWP WC           141         P         0%         Dum Field Loss/Groundwater Remedial Action Implem           141         P         0%         Dum Field Loss/Groundwater Remedial Action Implem           141         P         0%         Dum Field Loss/Groundwater Remedial Action Implem           141         0%         Survey Treatment Areas         Dum Pield Loss/Groundwater RAWP WC           22         P         0%         Motion of Loss/Groundwater RAWP WC           23         0%         Survey Treatment Areas         Eccentration Conference           24         0%         Motion of Loss/Groundwater RAWP WC         Eccentration Conference           23         0%         Eccentration Conference         Eccentration Conference         Eccentration Conference           24         0%         Eccentration Conference         Eccentration Conference         Eccentration Conference           24         0%         Eccentraticano Conference         Eccentraticano Confer				oncurrence		entation												les																								
ID         DECT         %         Task Name           141         P         0%         Prepare & Submit Rev 1 Loss/Groundwater RumP           141         P         0%         EGT Review of Rev. 1 Loss/Groundwater RumP           141         P         0%         Dum Field Loss/Groundwater RumP           141         P         0%         Dum Field Loss/Groundwater RumP           141         P         0%         Dum Field Loss/Groundwater RumP           141         P         0%         Burn Field Loss/Groundwater RumP           141         P         0%         Burne Field Loss/Groundwater RumP           141         P         0%         Burne Field Loss/Groundwater RumP           141         P         0%         Survey Treatment Arrass           142         P         0%         Mobile of Loss/Groundwater RumP           143         P         0%         Notice of Loss/Groundwater RumP           144         P         0%         Mobile of Loss/Groundwater RumP           145         P         Booker Confirmation and Characterization Sarra           145         P         Booker Confirmation and Characterization Sarra           146         P         Confirmation and Characterization Sarra           <			RAWP	WP WC		n Implem					tion		oles	Areas		les		tion Samp										P	ration				Ţ	ractor								
D         BCT         %         Task Name           414         Po         0%         Prepare & Submut Rev 1 Loses/Groundwater Retry           415         BCT         0%         BCT Review of Rev.1 Loses/Groundwater Retry           418         P         0%         BCT Review of Rev.1 Loses/Groundwater Retry           419         P         0%         Durn Field Loses/Groundwater Retry           419         P         0%         Notice to proceed           410         0%         Durn Field Loses/Groundwater Retry           421         0%         Notice to proceed           422         0%         Notice of Loses/Groundwater Retry           423         0%         Notice of Loses/Groundwater Retry           424         0%         Confination and Cipport and Disport           423         0%         Notice of Loses/Groundwater Retry           424         0%         Confination and Cipport and Disport           425         0%         Excavation Transmot           426         0%         Excavation Transmot           427         0%         Do         Excavation Transmot           428         0%         Excavation Transmot         Excavation Transmot           429         0%			oundwater	ndwater F		edial Actic					nplementa	sal	dect Sam	I Stockpile	veas	tion Samp		aracteriza					uo				poling	s 1st Roun	SVE Oper			oling	s 2nd Rour	E Subconti				New	be	nples		
ID         BCT         %         Task Name           414         P0%         Fask Name         BCT Review of Rev. Lu           415         BCT         0%         BCT Review of Rev. Lu           416         P1         0%         BCT Review of Rev. Lu           418         0%         Dunn Field Loess/Groundware           419         0%         Dunn Field Loess/Groundware           419         0%         Moldice to proceed           421         0%         Moldicatico           422         0%         Moldicatico           423         0%         Moldicatico           424         0%         Extavation Transporta           425         0%         Establish Excdusion           426         0%         Extavation Transporta           421         0%         Establish Excdusion           423         0%         Establish Excdusion           424         0%         Establish Excdusion           425         0%         Establish Excdusion           426 <td></td> <td>-</td> <td>Loess/Gi</td> <td>oess/Grou</td> <td>r RÁWP</td> <td>ater Rem</td> <td></td> <td></td> <td>nce</td> <td></td> <td>rater RA In</td> <td>nd Dispo</td> <td>rce and Co</td> <td>Zones and</td> <td>reatment /</td> <td>aracteriza</td> <td>c</td> <td>ion and Cl</td> <td>ration</td> <td>T&amp;D</td> <td>TD) SVE</td> <td></td> <td>Optimizat</td> <td>ation</td> <td></td> <td>peration</td> <td>wn and C</td> <td>ul Sample:</td> <td>Thermal</td> <td></td> <td>peration</td> <td>wn and Co</td> <td>it Samples</td> <td>iermał SVI</td> <td></td> <td></td> <td>j Samples</td> <td>is and Rev</td> <td>ection Sco</td> <td>coping Sar</td> <td>Review</td> <td></td>		-	Loess/Gi	oess/Grou	r RÁWP	ater Rem			nce		rater RA In	nd Dispo	rce and Co	Zones and	reatment /	aracteriza	c	ion and Cl	ration	T&D	TD) SVE		Optimizat	ation		peration	wn and C	ul Sample:	Thermal		peration	wn and Co	it Samples	iermał SVI			j Samples	is and Rev	ection Sco	coping Sar	Review	
ID         BCT         %         Task Name           414         P         0%         Prepare & Sut           415         BCT         0%         ECT Review of           416         P         0%         ECT Review of           417         0%         Dum Field Losss/Gr           418         0%         Notice to proco           419         0%         Notice to proco           419         0%         Notice to proco           420         0%         Notice to proco           419         0%         Prepare & Sut           420         0%         Notice to proco           41         0%         Prepare A           42         0%         Notice to proco           42         0%         Prepare A           42         0%         Notice to proco           42         0%         Mobilization           42         0%         Prepare A           43         0%         Prepare A           44         0%         Prepare A           45         0%         Prepare A           46         0%         Prepare A           47         0%         Precavation T			mut Rev 1	f Rev. 1 Lo	oundwate	Groundw	ed.	ent Areas	n Conferei		s/Groundw	ansport a	ackfill Sour	Exdusion	Shattow Ti	on and Ct	Excavatio	Confirmat	Site Resto	ation for E	I (ERH/JS'	nstruction	art-up and	VE Opera	leating	y State O	m Shul-do	mation So	Hot Spot	eating	y State Op	m Shut-do	mation So	tion for Th	ation	Σ	al Scopinç	ole Analys	tial ZVI Inj	Round Se	alysis and	
ID         BCT         %         Task Name           414         P         0%         Task Name           415         BCT         0%         Task Name           416         P         0%         Dunn Fie           416         P         0%         Dunn Fie           419         0%         0%         Dunn Fie           420         0%         0%         Notice           421         0%         0%         Notice           421         0%         0%         Notice           421         0%         0%         Notice           423         0%         0%         Notice           423         0%         0%         Notice           423         0%         0%         0%           423         0%         0%         0%           424         0%         0%         0%           133         0%         0%         0%           133         0%         0%         0%           133         0%         0%         0%           133         0%         0%         0%           134         0%         0%         0%			are & Sub	Review o	Loess/Gr	Id Loess/	to proce	ey Treatm	anstructio	lization	e of Loes	ivation Tr	Identify B	Establish	Excavate	Confirmati	Additional	Additional	Backfill & 3	Demobiliz	s Therma	System Co	System St	[hermal S	Soil H	Stead	Syste	Confir	Strategic (	Soil H	Stead	Syster	Confir	Jemobiliza	site Restor	ndwater 2	ollect initi	ntial Samp	evelop Ini	ollect 2nd	ample An	
ID         BCT Id         %         Task Name           414         P         0%         Task Name           415         BCT         %         Task Name           416         P         0%            416         P         0%            418         P         0%            420         0%         0%            421         0%         0%            423         0%         0%            423         0%         0%            423         0%         0%            423         0%         0%            423         0%         0%            423         0%         0%            424         0%         0%            133         0%         0%            335         0%         0%            133         0%         0%            335         0%         0%            336         0%         0%             33			Prep	BCT	Fina	Dunn Fie	Notic	Surv	Prec	Mobi	Notić	Exca									Loes														0,	Grou		-			0	1
ID         BCT         %         Tas           414         P         0%         1as           415         BCT         0%         1as           415         BCT         0%         1as           415         BCT         0%         1as           416         P         0%         1as           419         0%         0%         1as           420         0%         0%         1as           421         0%         0%         1as           423         0%         0%         1as           133         0%         0%         1as           134		k Name																																								1
ID         ID         ID           ID         ID         ID         ID         ID           ID         ID         ID         ID         ID         ID           ID         ID         ID         ID         ID         ID         ID           ID         ID         ID         ID         ID         ID         ID		% Tas	80	%0	%0	%0	%0	%0	%0	%0	%0	×0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	\$%0	%0	%0	0%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	
12         12         12         12         12         12         12           12 </td <td></td> <td>SCT  </td> <td></td> <td>BCT</td> <td>d</td> <td> </td> <td></td> <td> </td> <td> </td> <td></td> <td>4</td> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td> </td> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td><math>\left  \right </math></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>   </td> <td> </td> <td></td> <td></td> <td></td>		SCT		BCT	d						4																-	-	$\left  \right $									 				
		0	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	133	134	135	136	137	138	139	64	141	142	143	4	45	46	47	48	49	50	51	52	

[	-1																_					_																		<u> </u>	43	
	1																																								7 of 12	
			ŀ																																							
	Finish	Sun 4/19/09	sun 5/31/09	Sat 8/29/09	Sat 9/12/09	fue 9/8/09	ie 10/13/09	ton 12/7/09	on 1/11/10	in 11/28/10	Fri 3/12/10	ue 5/11/10	Sat 7/10/10	Ned 9/8/10	un 11/7/10	in 11/28/10	n 11/28/10	on 7/30/12	un 3/16/08	Sat 3/3/07	hu 1/12/06	Mon 3/6/06	on 3/27/06	ue 4/18/06	Sat 6/3/06	un 1/14/07	un 12/3/06	Thu 2/1/07	Sat 3/3/07	un 3/16/08	ed 1/18/06	ed 6/14/06	-ni 8/11/06	J 10/12/06	-n 7/20/07	re 9/18/07	10/18/07	11/17/07	sd 1/16/08	-n 2/15/08		
	Start	Mon 4/6/09	Mon 4/20/09	Mon 6/1/09	Sun 8/30/09	Sun 8/30/09	Wed 9/9/09 Tu	Sat 11/28/09 N	Tue 12/8/09 N	Tue 1/12/10 Su	Tue 1/12/10	Sat 3/13/10 T	Wed 5/12/10	Wed 5/12/10 \	Thu 9/9/10 S	Mon 11/8/10 Su	un 11/28/10 Su	Thu 7/31/08 M	Thu 1/12/06 S	Thu 1/12/06	Thu 1/12/06	Fn 1/13/06	Tue 3/7/06 M	Tue 3/28/06	Ved 5/17/06	Sat 6/10/06 S	Ved 5/17/06 Si	Mon 12/4/06	Fn 2/2/07	Ved 1/18/06 St	Ved 1/18/06 We	Thu 3/2/06 We	Thu 6/15/06	Mon 8/14/06 Th	Aon 8/14/06	Sat 7/21/07 Ti	Ved 9/19/07 Thu	Ved 9/19/07 Sa	un 11/18/07 We	Thu 1/17/08 F		
ire 5-1 Schedule	Duration	14 d	42 d	90 q	14 d	10 d	35 d	10 d	35 d	321 d	P 09	60 d	60.0	120 d 1	P 09	21 d	S PO	1461 d	795 d	416 d	1 d	53 d	21 d	22 d	18 d V	219 d	201 d V	60 d	30 d	V D 087	10	105 d	- 28 d	60 d N	341 d N	P 09	30 d W	60 d N	60 d St	30 4	2007	y 2001
Figu Master	sk Name	Confirm ZVI Scope and Schedule	Site Preparation and Material Staging	ZVI Injection	Demobilization and Site Restoration	Collect 1st Round Post-Injection Samples	Sample Analysis and Review	Collect 2nd Round Post-Injection Samples	Sample Analysis and Review	Source Areas Interim RA Completion Report with OPS	Prepare & Submit Rev. 0 Source Areas RACR to BCT	BCT Review & Submit Comments on Rev. 0 Source Areas RACR	Respond to BCT Comments on Rev. 0 Source Areas RACR	Prepare & Submit Rev. 1 Source Areas RACR	BCT Review of Rev. 1 Source Areas RACR w/ Concurrence	EPA Approval of Source Areas Final RACR and OPS Determination	Source Areas RA Complete / Remedy in Place	Dunn Field Fluvial SVE Operation and Maintenance (RA-0) Year 2 - 5	Dunn Field Off Depot Groundwater Remedial Design	Off-Depot ZVI PRB Installation Field Trial	Notice to Proceed	Prepare and Submit Rev 0 PRB Work Plan to BCT	BCT Review and Submit Comments on Rev. 0 PRB WP	Prepare and Submit Rev. 1 PRB WP to BCT	PRB Installation Field Effort	Confirmation Sampling	Prepare and Submit PRB Field Trial TM to BCT	BCT Review and Submit Comments on PRB Fleid Trial TM	Final Document Submittal	Dunn Field Off Depot Groundwater RD Report	Preliminary (30%) Off Depot RD Presentation	Prepare and Submit Intermediate (60%) Off Depot RD Report	BCT Review & Submit Comments on Intermediate (60%) Off Depot RD Report	Respond to BCT Comments on Intermediate (60%) Off Depot RD Report	Prepare & Submit Pre-Final (90%) Off Depot RD Report	BCT Review and Submit Comments on Pre-Final (90%) Off Depot RD Report	Respond to BCT Comments on Pre-Final (90%) Off Depot RD Report	Prepare & Submit Final (100%) Off Depot RD Report. Rev 0	BCT Review and Submit Comments on Final (100%) Off Depot RD Report, Rev	Prepare & Submit Final (100%) Off Depot RD Report. Rev. 1	Center (Memphis)	Version 10
	% Ta:	%0	%0	%0	%0	%0	%0	%0	%0	*0	%0	%0	%0	8	%0	%0	%0	%0	46%	51%	%00	%0(	. %0(	%0(	%00	%0;	%9%	%0	%0	12%	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	ution C	han v
	E L										<u>م</u>	BCT		٩.	BCT	٩.			-	<b>"</b>	¥	S 16	BCT 16	S 10	2	œ 	s	вст	s	e) 	10	s 10	3CT 10	10	S 2	301		۵_	3CT		Distrib	C Clean
		453	454	455	456	457	458	459	460	t61	462	<b>t</b> 63	164	f65	991	187	89	. 69	0/1	11	72	73	74	75	76	11	78	1 61	80	81	82	83	84	85	86	97 E	38	39 -	90 E	5	fense	v. 1 BKA
		Ľ	L.	[	Ľ	Ľ	1	1	4		4	4	4	<b>1</b>	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	Ť	4	Ŧ	Ŧ	Ŧ	¥	4	Ť	¥	å	ĝ

ID         BCT         %         Task Name           492         0%         BUnn Field Off Depot Gwndwalar           493         0%         Dunn Field Off Depot Gwndwalar           494         0%         Dunn Field Off Depot Gwndwalar           494         0%         Dunn Field Off Depot Gwndwalar           494         0%         Dunn Field Off Depot Gwndwalar           495         0%         Dunn Field Off Depot Gwndwalar           496         0%         Dunn Field Off Depot Gwndwalar           497         0%         Dunn Field Off Depot Gwndwalar           499         0%         Dunn Field Off Depot Gwndwalar           500         0%         Dunn Field Off Depot Gwndwalar           501         P         0%         Dunn Field Off Depot Gwndwalar           501         P         0%         Dunn Field Off Depot Gwndwalar           503         P         0%         Dunn Field Off Depot Gwndwalar           504         P         0%         Dunn Field Off Depot Gwndwalar           503         P         0%         Dunn Field Off Depot Gwndwalar           504         P         0%         Dunn Field Off Depot Gwndwalar           503         P         0%         Dunn Field Off			~	
492         0%         BCT Review of Fradi Crit Depot Groundwater           493         P         0%         Dunn Field Off Depot Groundwater           494         0%         Dunn Field Off Depot Groundwater           495         0%         Dunn Field Off Depot Groundwater           496         0%         Dunn Field Off Depot Groundwater           497         0%         Dunn Field Off Depot Groundwater           499         0%         Dunn Field Off Depot Groundwater           499         0%         Dunn Field Off Depot Groundwater           500         0%         Dunn Field Off Depot Groundwater           501         0%         Dunn Field Off Depot Groundwater           503         BCT         0%         Dunn Field Off Depot Groundwater           503         D         0%         Dunn Field Off Depot Groundwater           504         P         0%         Dunn Field Off Depot Groundwater           503         D         0%         Respond to BCT Comments of Groundwater           504         P         0%         Dunn Field Off Depot Groundwater           503         BCT         0%         Dunn Field Off Depot Groundwater           504         P         0%         Dunn Field Off Depot Groundwater		Duration	Start	Finish
493         P         0%         Dunn Field Off Depot Groundwater           495         0%         Dunn Field Off Depot Groundwater           495         0%         Dunn Field Off Depot Groundwater           495         0%         Dunn Field Off Depot Groundwater           496         0%         Dunn Field Off Depot Groundwater           497         0%         Dunn Field Off Depot Groundwater           500         0%         Dunn Field Off Depot Groundwater           501         P         0%         Dunn Field Off Depot Groundwater           501         P         0%         Dunn Field Off Depot Groundwater           501         P         0%         Dunn Field Off Depot Groundwater           503         BCT         0%         Dunn Field Off Depot Groundwater           503         BCT         0%         Dunn Field Off Depot Groundwater           504         P         0%         Respond to BCT Comments of           505         BCT         0%         Dunn Field Off Depot Groundwater           503         0%         Prepare & Submit Rev 1 Off Depot Groundwater           514         0%         Notice to Froundwater           515         0%         Dunn Field Off Depot Groundwater      1516	bepot RD Report, Rev. 1 w/ Concurrence	9 QC	Sat 2/16/08	Sun 3/16/08
434         0%         Durnn Field Off Depot GW Remadial A 495           435         0%         Durnn Field Off Depot GW Remadial A 497           436         0%         Oth Depot GW Remadial A 498           437         0%         Oth Depot GW Repot GW Remadial A 498           438         0%         Oth Depot Access Agreements 500           500         0%         Dunn Field Off Depot Access Agreements 501         Down Complete Access Agreements 501           503         BCT         0%         Dunn Field Off Depot Groundwai 501         Down Complete Access Agreements 501           503         BCT         0%         Dunn Field Off Depot Groundwai 501         Down Field Off Depot Groundwai 501           503         BCT         0%         Dunn Field Off Depot Groundwai 501         Down Field Off Depot Groundwai 501           504         P         0%         Dunn Field Off Depot Groundwai 606         Preconstruction Conference 501           503         BCT         0%         Dunn Field Off Depot Groundwai 606         Preconstruction Conference 606           513         0%         Dunn Field Off Depot Groundwai 606         Dunn Field Off Depot Groundwai 606           514         P         0%         Dunn Field Off Depot Groundwai 606         Dunn Field Off Depot Groundwai 606           513         D <td>ater RD Report</td> <td>P O</td> <td>Sun 3/16/08</td> <td>Sun 3/16/08</td>	ater RD Report	P O	Sun 3/16/08	Sun 3/16/08
495         0%         Dunn Field Off Depot GW Remadial A (96)           496         0%         Off Depot Access Agreements (99)           497         0%         Obtaan Off Depot Access Agreements (99)           500         0%         Obtaan Off Depot Access Agreements (90)           501         0%         Dunn Field Off Depot Access Agreements (90)           503         0%         Dunn Field Off Depot Groundwat (90)           503         0%         Dunn Field Off Depot Groundwat (90)           503         0%         Dunn Field Off Depot Groundwat (90)           504         P         0%         Dunn Field Off Depot Groundwat (90)           503         BCT         0%         Dunn Field Off Depot Groundwat (90)           504         P         0%         Dunn Field Off Depot Groundwat (90)           503         0%         Dunn Field Off Depot Groundwat (90)           504         0%         Dunn Field Off Depot Groundwat (90)           512         0%         Dunn Field Off Depot Groundwat (90)           513         0%         Dunn Field Off Depot Groundwat (90)           514         0%         Dunn Field Off Depot Groundwat (90)           513         0%         Dunn Field Off Depot Groundwat (90)           514         0% <td>blic Briefing</td> <td>120 d</td> <td>Mon 3/17/08</td> <td>Mon 7/14/08</td>	blic Briefing	120 d	Mon 3/17/08	Mon 7/14/08
496         0%         Off Depot Properties & Owners in Identity Properties & Owners in 409         0%         Obtain Off Depot Access Agreements 500           498         0%         0%         Obtain Off Depot Access Agreements 500         0%         Obtain Off Depot Access Agreements 500           500         0%         0%         Dunn Field Off Depot Access Agreements 501         0%         Dunn Field Off Depot Groundwal           501         P         0%         BCT Review & Submit Rev 1 Off 1 607         Drun Field Off Depot Groundwal           503         BCT         0%         BCT Review of Rev. 1 Off 1 607         Drun Field Off Depot Groundwal           503         BCT         0%         Prepare & Submit Rev 1 Off Depot Groundwal           504         P         0%         Drun Field Off Depot Groundwal           505         BCT         0%         Notice to PT Depot Groundwal           504         P         0%         Presonstruction Conference           511         P         0%         Dunn Field Off Depot Groundwal           512         0%         Dunn Field Off Depot Groundwal           513         0%         Dunn Field Off Depot Groundwal           514         0%         Dunn Field Off Depot Groundwal           515         0%         Dunn Field Off	ial Action	4875 d	Sat 7/21/07	Mon 11/23/20
497         0%         Identity Properties & Owners A           498         0%         Obtain Off Depot Access Agreements           500         0%         Obtain Off Depot Access Agreements           501         0%         Dunn Field Off Depot Access Agreements           501         0%         Dunn Field Off Depot Groundwait           501         0%         Dran Field Off Depot Groundwait           503         BCT         0%         BCT Review & Submit Rev 1 Off Depot Groundwait           503         BCT         0%         Prepare & Submit Rev 1 Off Depot Groundwait           503         BCT         0%         Dunn Field Off Depot Groundwait           503         BCT         0%         Dunn Field Off Depot Groundwait           504         P         0%         Dunn Field Off Depot Groundwait           503         BCT         0%         Dunn Field Off Depot Groundwait           514         0%         Dunn Field Off Depot Groundwait         Dunn Field Off Depot Groundwait           513         0%         Dunn Field Off Depot Groundwait         East         Dunn Field Off Depot Groundwait           513         0%         Dunn Field Off Depot Groundwait         East         Dunn Field Off Depot Groundwait           514         0%	for Remedial Action	74 d	Sat 7/21/07	Tue 10/2/07
498         0%         Obtain Off Depot Access Agreements           499         0%         Complete Access Agreements           501         P         0%         Dunn Field Off Depot Access Agreements           501         P         0%         Dunn Field Off Depot Groundwat           501         P         0%         BCT Review & Submit Rev 1 Off Or           502         BCT         0%         Prepare & Submit Rev. 1 Off Or           503         BCT         0%         Prepare & Submit Rev. 1 Off Or           505         BCT         0%         Prepare & Submit Rev. 1 Off Or           506         P         0%         Dunn Field Off Depot Groundwat           508         P         0%         Dunn Field Off Depot Groundwat           509         0%         Dunn Field Off Depot Groundwat           510         0%         Dunn Field Off Depot Groundwat           511         P         0%         Notice of RA Implementation           513         0%         Dunn Field Off Depot Groundwat           514         0%         Dunn Field Off Depot Groundwat           513         0%         Dunn Field Off Depot Groundwat           514         0%         Dunn Field Off Depot Groundwat           515	ers where Off Depot Access will be Required	14 0	Sat 7/21/07	Fn 8/3/07
499     0%     Complete Access Agreements       500     0%     Dunn Field Off Depot Groundwal       501     P     0%     BCT Review & Submit Rev 1 Off 0       503     BCT     0%     BCT Review & Submit Rev 1 Off 0       503     BCT     0%     BCT Review & Submit Rev 1 Off 0       503     BCT     0%     Prepare & Submit Rev 1 Off 0       503     BCT     0%     Prepare & Submit Rev 1 Off 0       504     P     0%     BCT Review of Rev. 1 Off 0       505     BCT     0%     Prepare & Submit Rev 1 Off 0       506     P     0%     Dunn Field Off Depot Groundwal       508     0%     Dunn Field Off Depot Groundwal       509     0%     Dunn Field Off Depot Groundwal       511     P     0%     Notice of RA Implementation       513     0%     Dunn Field Off Depot Groundwal       514     0%     Dunn Field Off Depot Groundwal       513     0%     Dunn Field Off Depot Groundwal       514     0%     Dunn Field Off Depot Groundwal       515     0%     Dunn Field Off Depot Groundwal       516     0%     Dunn Field Off Depot Groundwal       517     0%     Dunn Field Off Depot Groundwal       518     0%     Dunn Field Off Depot Grou	Agreements	60 d	Sat 8/4/07	Tue 10/2/07
500         0%         Dunn Field Off Depot Groundwar           501         P         0%         BCT Review & Submit Rev D Groundwar           502         BCT         0%         BCT Review & Submit Rev D Groundwar           503         BCT         0%         BCT Review & Submit Rev 1 Off Depot Groundwar           503         BCT         0%         Prepare & Submit Rev 1 Off Depot Groundwar           504         P         0%         BCT Review of Rev. 1 Off Depot Groundwar           505         BCT         0%         Notice to PT Depot Groundwar           506         P         0%         Notice to PT Depot Groundwar           501         0%         Dwn Field Off Depot Groundwar           503         0%         Notice of RA Implementation           514         P         0%         Notice of RA Implementation           513         0%         Notice of RA Implementation           514         0%         Notice of RA Implementation           515         0%         Notice of RA Implementation           514         0%         Dunn Field Off Depot Groundwar           515         0%         Notice of RA Implementation           516         0%         Dunn Field Off Depot Groundwar           516	ents or Initiate Regulatory Action	00	Tue 10/2/07	Tue 10/2/07
501         P         0%         Prepare & Submit Rev D Grouments o           502         BCT         0%         BCT Review & Submit Rev 1 Off Derivation           503         BCT         0%         Respond to BCT Comments o           504         P         0%         Prepare & Submit Rev 1 Off Derivation           505         BCT         0%         Prepare & Submit Rev 1 Off Derivation           507         0%         D/m Field Off Depot Groundwat           508         0%         D/m Field Off Depot Groundwat           509         0%         Notice to Proceed           511         P         0%         Notice to Froceed           513         0%         Notice of RA Implementation           514         0%         Notice of RA Implementation           513         0%         Notice of RA Implementation           514         0%         Notice of RA Implementation           513         0%         Notice of RA Implementation           514         0%         Notice of RA Implementation           515         0%         Notice of RA Implementation           514         0%         Durn Field Off Off Off Off Off Off Off Off Off Of	water Remedial Action Work Plan	270 d	Fri 10/19/07	Mon 7/14/08
502         BCT         0%         BCT Review & Submit Commans o           503         P         0%         Respond to BCT Commans o           503         BCT         0%         Prepare & Submit Rev.1 Off Dep BCT Review of Rev.1 Off Dep Dum Field Off Depot Groundwai           506         P         0%         Dum Field Off Depot Groundwai           507         0%         Dum Field Off Depot Groundwai           508         0%         Dum Field Off Depot Groundwai           509         0%         Dum Field Off Depot Groundwai           510         0%         Nolice of RA Implementation           511         P         0%         Nolice of RA Implementation           512         0%         Nolice of RA Implementation           513         0%         Dum Field Off Depot RA Com           514         0%         Dum Field Off Depot RA Com           515         0%         Dum Field Off Depot RA Com           516         0%         Dum Field Off Depot RA Com           518         0%         Dum Field Off Depot RA Com           518         0%         Prepare & Submit Rev 1           521         0%         Dum Field Off Depot RA Com           522         0%         Dum Field Off Depot RA Com	Groundwater Off Depot RAWP to BCT	60 d	Fri 10/19/07	Mon 12/17/07
503         0%         Respond to BCT Continents of 504         P         0%         Respond to BCT Review of Rev. 1 Off Dep 505         501         0%         BCT Review of Rev. 1 Off Dep 600         Final Dunn Field Off Depot Groundwal 500         506         P         0%         Dunn Field Off Depot Groundwal 600         Final Dunn Field Off Depot Groundwal 600         600         Dunn Field Off Depot Groundwal 610         600         Dunn Field Off Depot Groundwal 610         600         Mobilization         600         600         Construction Conference 610         600         Mobilization         600         Construction Inspection         600         600         600         600         600         600         600         600         600         <	mments on Rev. 0 Off Depot RAWP	60 d	Tue 12/18/07	Fn 2/15/08
504         P         0%         Prepare & Submit Rev. 1 Off Depoil Gn           505         BCT         0%         BCT Review of Rev. 1 Off Depoil Gn           506         P         0%         BCT Review of Rev. 1 Off Depoil Gn           508         P         0%         BCT Review of Rev. 1 Off Depoil Gn           508         0%         Dunn Field Off Depoil Gn         Diagnation           509         0%         Notice of RA Implementation         Diagnation           511         P         0%         Notice of RA Implementation           513         0%         Notice of RA Implementation           513         0%         Dunn Field Off Depot RA Com           514         0%         Dunn Field Off Depot RA Com           515         0%         Dunn Field Off Depot RA Com           514         0%         Dunn Field Off Optot RA Com           515         0%         Dunn Field Off Optot RA Com           516         0%         Dunn Field Off Depot RA Com           518         0%         Dunn Field Off Depot RA Com           518         0%         Dunn Field Off Depot Ra Comme           520         0%         BCT Review & Submit Rev 1           521         BCT         O% <td>its on Rev. 0 Off Depot RAWP</td> <td>P 09</td> <td>Sat 2/16/08</td> <td>Tue 4/15/08</td>	its on Rev. 0 Off Depot RAWP	P 09	Sat 2/16/08	Tue 4/15/08
505         BCT         0%         BCT Review of Rev. 1 Off Depot Groundwat           507         0%         Final Dunn Field Off Depot Groundwat           507         0%         Dunn Field Off Depot Groundwat           508         0%         Dunn Field Off Depot Groundwat           509         0%         Dunn Field Off Depot Groundwat           508         0%         Preconstruction Conference           510         0%         Mobilization           511         P         0%         Dunn Field Off Depot Groundwat           513         0%         Dunn Field Off Depot RA Construction Inspection           514         0%         Dunn Field EBT O&M Year 1           515         0%         Demotifization and Site Reston           516         0%         Dunn Field EBT O&M Year 1           517         0%         Dunn Field CBT Depot RA Com           518         BCT         0%         Dunn Field CBT Depot RA 1           519         0%         Dunn Field CBT Depot RA 1         Tot           518         BCT         0%         BCT Review & Submit Rev 1         Tot           521         BCT         0%         BCT Review of Rev. 1         Tot           521         BCT         0% <td>Off Depot RAWP</td> <td>120 d</td> <td>Sat 2/16/08</td> <td>Sal 6/14/08</td>	Off Depot RAWP	120 d	Sat 2/16/08	Sal 6/14/08
506         P         0%         Final Durn Field Off Depot Groundwat           507         0%         Dunn Field Off Depot Groundwat           508         0%         Notice to Proceed           510         0%         Preconstruction Conference           511         P         0%         Notice of RA Implementation           512         0%         Notice of RA Implementation           513         0%         Dunn Field Off Depot Groundwat           514         0%         Dunn Field Off Depot RA Con           515         0%         Dunn Field Off Depot RA Con           516         0%         Dunn Field Off Depot RA Con           517         P         0%         Dunn Field Caft Depot RA Con           518         BCT         0%         Dunn Field Caft Depot RA Con           519         0%         Dunn Field Caft Depot Ra Commerce         5           518         BCT         0%         Review & Submit Rev 1         6           518         BCT         0%         Review & Submit Rev 1         6           520         P         0%         Review & Submit Rev 1         6           521         BCT         0%         Review & Submit Rev 1         6	Depot RAWP w/Concurrence	30 d	Sun 6/15/08	Mon 7/14/08
507         0%         Dunn Field Off Depot Groundwat           508         0%         Nollice Io Proceed           510         0%         Preconstruction Conference           511         P         0%         Nollice Io Proceed           512         0%         Mobilization         Inplementation           513         0%         Dunn Field Off Depot RA Con           514         0%         Dunn Field Off Depot RA Con           515         0%         Dunn Field Off Depot RA Con           516         0%         Dunn Field EBT O&M Year 1           517         P         0%         Dunn Field CBT O&M Year 1           518         BCT         0%         Dunn Field EBT O&M Year 1           519         0%         Dunn Field CBT O&M Year 1         D           518         BCT         0%         Prepare & Submit Rev 1         D           519         0%         Dunn Field Off Depot Ra 1         D         D           520         P         0%         Respond to BCT Review of Rev 1         D           521         BCT         0%         Review & Submit Rev 1         D           522         P         0%         BCT Review of Rev 1         D	t Groundwater RAWP	P O	Mon 7/14/08	Mon 7/14/08
508         0%         Notice to Proceed           510         0%         Preconstruction Conference           511         P         0%         Mobilization           512         0%         Mobilization         Indiementation           513         0%         Dunn Field Off Depot RA Contended           514         0%         Dunn Field Off Depot RA Contended           515         0%         Dunn Field Off Depot RA Contended           516         0%         Dunn Field EBT O&M Year 1           517         P         0%         Dunn Field EBT O&M Year 1           518         BCT         0%         Dunn Field EBT O&M Year 1           519         P         0%         Dunn Field EBT O&M Year 1           518         BCT         0%         Dunn Field CBT Depot Interim           519         P         0%         Dunn Field Off Depot Interim           520         P         0%         BCT Review & Submit Rev 1           521         BCT         0%         Respond to BCT Commercited           522         P         0%         BCT Review & Submit Rev 1           523         0%         Dunn Field Off Depot Ra-0 (           524         0%         Dunn Field Off Depot C	Iwater Remedial Action Implementation	4508 d	Mon 7/21/08	Mon 11/23/20
509         0%         Preconstruction Conference           510         0%         Mobilization           511         P         0%         Mobilization           512         0%         Notice of RA Implementation           513         0%         Dunn Field Off Depot RA Con           514         0%         Final Construction Inspection           515         0%         Dunn Field EBT O&M Year 1           516         0%         Dunn Field EBT O&M Year 1           517         P         0%         Dunn Field EBT O&M Year 1           518         BCT         0%         Dunn Field EBT O&M Year 1           519         0%         Dunn Field EBT O&M Year 1         D           518         BCT         0%         Prepare & Submit Rev 0           518         BCT         0%         Respond to BCT Commer           520         P         0%         Respond to BCT Commer           521         BCT         0%         Respond to BCT Commer           522         P         0%         Dunn Field Off Depot Ra-0 (           523         0%         Dunn Field Off Depot Ra-0 (           524         0%         Dunn Field Off Depot Compi           525		P O	Mon 7/21/08	Mon 7/21/08
510         0%         Mobilization           511         0%         Mobilization           512         0%         Notice of RA Implementation           513         0%         Dunn Field Off Depot RA Construction Inspection           514         0%         Dunn Field Off Depot RA Construction Inspection           515         0%         Dunn Field EBT O&M Year 1           516         0%         Dunn Field EBT O&M Year 1           517         P         0%         Dunn Field EBT O&M Year 1           518         BCT         0%         Dunn Field EBT O&M Year 1           519         0%         Dunn Field EBT O&M Year 1           519         0%         Dunn Field CBT Depot Interim           519         0%         BCT Review & Submit Rev 1           520         P         0%         Review & Submit Rev 1           521         BCT         0%         Review & Submit Rev 1           522         P         0%         BCT Review of Rev 1           523         0%         Outnn Field Off Depot Ra-0 (           524         0%         Dunn Field Off Depot Compie           525         0%         Dunn Field Off Depot Compie           526         0%         Dunn Field Of	9	। र । र	Tine 8/5/08	T.is BISIOB
510         0%         Mobilization           511         P         0%         Nolice of RA Implementation           512         0%         Dunn Field Off Depot RA Construction Inspection           513         0%         Final Construction Inspection           514         0%         Demohilization and Site Resto           515         0%         Demohilization and Site Resto           516         0%         Demohilization and Site Resto           517         P         0%         Demohilization and Site Resto           518         BCT         0%         Demohilization and Site Resto           519         0%         Dunn Field EBT O&M Year 1           520         P         0%         Respond to BCT Commercianics           521         BCT         0%         BCT Review & Submit Rev 1           521         BCT         0%         Dunn Field Off Depot Ra-O (           522         P         0%         Dunn Field Off Depot Compi           525 <td< td=""><td></td><td>-</td><td>onco an I</td><td></td></td<>		-	onco an I	
511         P         0%         Notice of RA Implementation           512         0%         Dunn Field Off Depot RA Const           513         0%         Final Construction Inspection           514         0%         Dunn Field Off Depot RA Const           515         0%         Dunn Field EBT O&M Year 1           516         0%         Dunn Field EBT O&M Year 1           517         0%         Dunn Field EBT O&M Year 1           518         BCT         0%         Dunn Field Construction Inspection           519         0%         Dunn Field Construction Inspection           511         P         0%         BCT Review & Submit Rev 1           520         P         0%         BCT Review of Rev 1 Off           521         BCT         0%         Respond to BCT Commercian           521         BCT         0%         Respond to BCT Commercian           521         BCT         0%         Respond to BCT Commercian           522         P         0%         BCT Review of Rev 1 Off           523         0%         Dunn Field Off Depot Rav 0         6           525         0%         Dunn Field Off Depot Rav 0         6           526         0%         Dun		2 d	Wed 8/20/08	Thu 8/21/08
512         0%         Dunn Field Off Depot RA Const           513         0%         Final Construction Inspection           514         0%         Dunn Field EBT O&M Year 1           515         0%         Dunn Field EBT O&M Year 1           516         0%         Dunn Field EBT O&M Year 1           517         0%         Dunn Field EBT O&M Year 1           518         BCT         0%         Dunn Field EBT O&M Year 1           519         0%         Dunn Field CAT Depot Interim           511         P         0%         BCT Review & Submit Rev 1           520         P         0%         Respond to BCT Commerce 1 Off           521         BCT         0%         Respond to BCT Commerce 2 Submit Rev 1           521         BCT         0%         Respond to BCT Commerce 2 Submit Rev 1           521         BCT         0%         Respond to BCT Commerce 2 Submit Rev 1           521         BCT         0%         Respond to BCT Commerce 2 Submit Rev 1           523         0%         BCT Review of Rev 1 Off Depot Ra-0 (           524         0%         Dunn Field Off Depot Ra-0 (           525         0%         Dunn Field Off Depot Compi           526         0%         Dunn Fi	ю	P1	Thu 8/21/08	Thu 8/21/08
513     0%     Final Construction Inspection       514     0%     Demobilitzation and Site Reston       515     0%     Durun Field EBT 0&M Year 1       516     0%     Durun Field EBT 0&M Year 1       517     P     0%     Durun Field CBT 0       518     BCT     0%     Durun Field CBT 0       519     0%     Durun Field CBT 0       519     0%     BCT Review & Submit Rev 1       520     P     0%     Respond to BCT Commerce       521     BCT     0%     Respond to BCT Commerce       522     P     0%     Respond to BCT Commerce       523     0%     Durun Field Off Depot Ra-O (       524     0%     Durun Field Off Depot Ra-O (       525     0%     Durun Field Off Depot Complets / Review Group (Group Group G	Construction (RA-C)	90 d	Fri 8/22/08	Wed 11/19/08
514         0%         Demobilization and Site Restor           515         0%         Dunn Field EBT 0&M Year 1           516         0%         Dunn Field EBT 0&M Year 1           517         P         0%         Dunn Field EBT 0&M Year 1           517         P         0%         Dunn Field EBT 0&M Year 1           517         P         0%         Dunn Field EBT 0&M Year 1           518         BCT         0%         Prepare & Submit Rev 0           519         0%         BCT Review & Submit Rev 1           520         P         0%         Respond to BCT Commer 1           521         BCT         0%         Prepare & Submit Rev 1           521         BCT         0%         Prepare & Submit Rev 1           522         P         0%         BCT Review of Rev. 1           523         0%         Dunn Field Off Depot Ra-0 (           524         0%         Dunn Field Off Depot Complets / Review 5           525         0%         Dunn Field Off Depot Complets (Arol 6           526         0%         Dunn Field Off Depot Complets (Arol 6           527         54%         Dunn Field Interim Remedial Actions (Gro 6	lon	50	Thu 11/20/08	Mon 11/24/08
515         0%         Dunn Field EBT 0&M Year 1           516         0%         Dunn Field Off Depot Interim           517         P         0%         Dunn Field Off Depot Interim           518         BCT         0%         Prepare & Submit Rev 0           518         BCT         0%         BCT Review & Submit Rev 1           519         0%         BCT Review & Submit Co           519         0%         Respond to BCT Comment           520         P         0%         Respond to BCT Comment           521         BCT         0%         BCT Review of Rev 1 Off           522         P         0%         BCT Review of Rev 1 Off           523         0%         Dunn Field Off Depot RA-0 (           524         0%         Dunn Field Off Depot RA-0 (           525         0%         Dunn Field Off Depot Complex (Romol Group)           526         0%         Dunn Field Off Depot Complex (SCOM)           527         54%         Dunn Field Interim Remedial Actions (Group)	estoration	P 2	Tue 11/25/08	Mon 12/1/08
516     0%     Dunn Field Off Depot Interim       517     P     0%     Prepare & Submit Rev U       518     BCT     0%     BCT Review & Submit Co       519     0%     BCT Review & Submit Co       519     0%     BCT Review & Submit Co       520     P     0%     Respond to BCT Commerciance       521     BCT     0%     Prepare & Submit Rev 1       522     P     0%     BCT Review of Rev. 1 Oft       523     P     0%     BCT Review of Rev. 1 Oft       524     0%     Oft Depot RA Complete / Rei       525     0%     Dunn Field Off Depot RA-O       526     0%     Dunn Field Off Depot Compl       527     54%     Dunn Field Off Depot Compl       528     0%     Dunn Field Off Depot Compl       527     54%     Dunn Field Interim Remedial Actions (Gro	ar 1	365 d	Tue 11/25/08	Tue 11/24/09
517         P         0%         Prepare & Submit Rev 0           518         BCT         0%         BCT Review & Submit Co           519         0%         BCT Review & Submit Co           519         0%         Respond to BCT Commenter           520         P         0%         Respond to BCT Commenter           521         BCT         0%         Respond to BCT Commenter           522         P         0%         BCT Review of Rev. 1 Oft           523         0%         BCT Review of Rev. 1 Oft           524         0%         Off Depot RA Complete / Review of Rev. 2 Ott           525         0%         Off Depot RA Complete / Review of Rev. 2 Ott           525         0%         Dunn Field Off Depot RA-Ott           526         0%         Dunn Field Off Depot Complete / Set           527         54%         Dunn Field Off Depot Completer	arim RA Completion Report with OPS	321 d	Wed 11/25/09	Mon 10/11/10
518         BCT         0%         BCT Review & Submit Commet           519         0%         Respond to BCT Commet           520         P         0%         Respond to BCT Commet           521         BCT         0%         Respond to BCT Commet           522         P         0%         Retwiew of Rev. 1 Oft           523         P         0%         BCT Review of Rev. 1 Oft           524         0%         Durn Field Off Depot RA-O (           525         0%         Dunn Field Off Depot Complete / Rev           526         0%         Dunn Field Off Depot Complete / Solon           526         0%         Dunn Field Off Depot Complete / Solon           527         54%         Dunn Field Off Depot Complete / Solon	V 0 Off Depot RACR to BCT	P 09	Wed 11/25/09	Sat 1/23/10
519     0%     Respond to BCT Commer       520     P     0%     Prepare & Submit Rev 1       521     BCT     0%     BCT Review of Rev. 1 Off       522     P     0%     EPA Approval of the Duni       523     0%     Off Depot RA Complete / Rei       524     0%     Dunn Field Off Depot RA-O (       525     0%     Dunn Field Off Depot Comple       526     0%     Dunn Field Off Depot Comple       527     54%     Dunn Field Off Depot Comple	t Comments on Rev 0 Off Depot RACR	P 09	Sun 1/24/10	Wed 3/24/10
520         P         0%         Prepare & Submit Rev 1           521         BCT         0%         BCT Review of Rev. 1 Off           522         P         0%         BCT Review of Rev. 1 Off           523         0%         Coff Depot RA Complete / Rei           524         0%         Outn Field Off Depot RA O           525         0%         Dunn Field Off Depot RA O           526         0%         Dunn Field Off Depot Complexer RA O           527         54%         Dunn Field Off Depot Complexer RA O	ments on Rev 0 Off Depot RACR	P 09	Thu 3/25/10	Sun 5/23/10
521     BCT     0%     BCT Review of Rev. 1 Off       522     P     0%     EPA Approval of the Durit       523     0%     Off Depot RA Complete / Rei       524     0%     Ounn Field Off Depot RA Of       525     0%     Dunn Field Off Depot RA Of       526     0%     Dunn Field Off Depot RA O       527     54%     Dunn Field Off Depot Completer	v 1 Off Depot RACR	120 d	Thu 3/25/10	Thu 7/22/10
522     P     0%     EPA Approval of the Durn       523     0%     Off Depot RA Complete / Rei       524     0%     Off Depot RA Complete / Rei       525     0%     Durn Field Off Depot RA-O (1255       526     0%     Durn Field Off Depot RA-O (1255       527     54%     Dunn Field Off Depot Complete/ S27	Off Depot RACR w/ Concurrence	P 09	Fri 7/23/10	Mon 9/20/10
523     0%     Off Depot RA Complete / Ret       524     0%     Dunn Field Off Depot RA-O ()       525     0%     Dunn Field Off Depot RA-O ()       526     0%     Dunn Field Off Depot RA-O ()       527     54%     Dunn Field Interim Remedial Actions (Gro	Junn Field Off Depot RACR and OPS Determination	21 d	Tue 9/21/10	Mon 10/11/10
524     0%     Dunn Field Off Depot RA-0 (1)       525     0%     Dunn Field Off Depot RA-0 (1)       526     0%     Dunn Field Off Depot RA-0 (1)       527     54%     Dunn Field Off Depot Compl	Remedy in Place	0 d	Mon 10/11/10	Mon 10/11/10
525     0%     Dunn Field Off Depot RA-0 (I       526     0%     Dunn Field Off Depot Compliance       527     54%     Dunn Field Interim Remedial Actions (Grossing Compliance)	-O (Injection) Year 2 - 5	1826 d	Wed 11/25/09	Man 11/24/14
526         0%         Dunn Field Off Depot Compli           527         54%         Dunn Field Interim Remedial Actions (Gro	-O (Monitoring) Year 6 - 10	1826 d	Tue 11/25/14	Sun 11/24/19
527 54% Dunn Field Interim Remedial Actions (Gro	mpliance Monitoring	365 d	Mon 11/25/19	Mon 11/23/20
	Groundwater Extraction)	2272 d	Tue 3/11/03	Fri 5/29/09
528 1 100% Calendar Year 2003 Operations		380 d	Tue 3/11/03	Wed 3/24/04
534 100% Calendar Year 2004 Operations		481 d	Mon 3/1/04	Fri 6/24/05
540 100% Calendar Year 2005 Operations		382 d	, Sun 5/1/05	Wed 5/17/06
Defense Distribution Center (Memphis)				

j.

I

I

			Figur Master S	re 5-1 Schedule		
۵	BCT	*	Task Name	Duration	Start	Finish
563		52%	Memphis Depot NPL Site-Wide Activities	6852 d	Mon 8/19/02	Sat 5/22/21
2 <u>64</u>		100%	Post ROD Community Invotvement Plan	286 d	Sat 5/1/04	Thu 2/10/05
567		100%	Remedial Action Sampling & Analysis Plan	530 d	Tue 5/25/04	Sat 11/5/05
574		44%	BRAC Cleanup Plan (BCP)	1216 d	Sun 10/2/05	Thu 1/29/09
575		100%	BCP, Version 9	282 d	Sun 10/2/05	Mon 7/10/06
579		%0	BCP, Version 10	120 d	Mon 10/2/06	· Mon 1/29/07
580	a	%0	Prepare & Submit Rev 0 BCP, V10 to BCT	60 d	Mon 10/2/06	Thu 11/30/06
581	BCT	%0	BCT Review & Submit Comments on Rev 0 BCP, V10	P OS	Fri 12/1/06	Sat 12/30/06
582	۵.	%0	Prepare & Submit Rev 1 BCP, V10 to BCT	30 d	Sun 12/31/06	Man 1/29/07
583		<b>%</b> 0	BCP, Version 11	120 d	Tue 10/2/07	Tue 1/29/08
584	٩	%0	Prepare & Submit Rev 0 BCP, V11 to BCT	60 d	Tue 10/2/07	Fn 11/30/07
585	BCT	%0	BCT Review & Submit Comments on Rev 0 BCP, V11	90 90 90	Sal 12/1/07	Sun 12/30/07
586	٩	%0	Prepare & Submit Rev 1 BCP, V11 to BCT	30 d	Mon 12/31/07	Tue 1/29/08
587		%0	BCP, Version 12	120 d	Thu 10/2/08	Thu 1/29/09
588	٩	%0	Prepare & Submit Rev 0 BCP, V12 to BCT	P 09	Thu 10/2/08	Sun 11/30/08
589	BCT	%0	BCT Review & Submit Comments on Rev 0 BCP, V12	30 q	Mon 12/1/08	Tue 12/30/08
590	٩	%0	Prepare & Submit Rev 1 BCP, V12 to BCT	30 d	Wed 12/31/08	Thu 1/29/09
591		46%	FOST SCHEDULE	2588 d	Tue 4/13/04	Sat 5/14/11
592		%06	FOST 4	1023 d	Tue 4/13/04	Tue 1/30/07
593		100%	Prepare & Submit Internal Rev 0 FOST 4 to DSS-DB	P 01	Tue 4/13/04	Mon 6/21/04
594		100%	DSS-DB Review & Submit Comments on Rev 0 FOST 4	66 d	Tue 6/22/04	Thu 8/26/04
595		100%	Prepare & Submit Internal Rev 0 1 FOST 4 to DSS-DB	37 d	Sun 8/29/04	Mon 10/4/04
596		100%	DSS-DB Review & Submit Comments on Rev 0 1 FOST 4	17 d	Tue 10/5/04	Thu 10/21/04
597	٩	100%	Prepare & Submit Rev 1 FOST 4 to BCT	5 d	Fn 10/22/04	Tue 10/26/04
598	BCT	100%	BCT Review & Submit Comments on Rev 1 FOST 4	75 d	Wed 10/27/04	Sun 1/9/05
599		100%	Prepare & Submit Final (Rev 2) FOST 4 for Public Comment	14 d	Mon 1/10/05	Sun 1/23/05
600		100%	Public Comment Period for FOST 4	30 d	Mon 1/24/05	Tue 2/22/05
601		100%	Resolve/Incorporate Coments & Submit Final FOST 4 to DSS-DB	2 d	Wed 2/23/05	Thu 2/24/05
602		100%	DSS-DB Revw & Send Final FOST to Hampton for Approval Signature (copies to Df	PO	Thu 2/24/05	Thu 2/24/05
603		100%	Hampton Approve/Sign FOST	30 d	Fri 2/25/05	Sat 3/26/05
604		85%	Deed Issued by CoE - Mobile (Dependent on Public Sale)	675 d	Sun 3/27/05	Tue 1/30/07
605		<b>%</b> 0	FOST 5	488 d	Tue 9/11/07	Sat 1/10/09
606		%0	Prepare & Submit Internal Rev 0 FOST 5 to DSS-DB	P 09	Tue 9/11/07	Fri 11/9/07
607		%0	DSS-DB Review & Submit Comments on Rev 0 FOST 5	45 d	Sat 11/10/07	Mon 12/24/07
608		%0	Prepare & Submit Internal Rev 0 1 FOST 5 to DSS-DB	30 d	Thu 12/27/07	Fri 1/25/08
609		%0	DSS-DB Review & Submit Comments on Rev 0.1 FOST 5	9 Q£	Sat 1/26/08	Sun 2/24/08
610	6	%0	Prepare & Submit Rev 1 FOST 5 to BCT	15 d	Mon 2/25/08	Mon 3/10/08
611	BCT	%0	BCT Review & Submit Comments on Rev 1 FOST 5	30 d	Tue 3/11/08	Wed 4/9/08
612	٩	%0	Prepare and Submit Rev 2 FOST 5 to BCT	30 d	Тћи 4/10/08	Fri 5/9/08
		] :				
<b>Jefens</b> Sev. 1 B.	se Dist RAC Cle	tributic eanup Pl	n Center (Memphis) an Version 10	y 2007		
						the second se

Ξ

	l		Figur Master S	re 5-1 Schedule	-			
₽	BCT ttem	*	Task Name	Duration	Start	Finish		
613	BCT	<b>%</b>	BCT Review & Submit Comments on Rev 2 FOST 5	15 d	Sat 5/10/08	Sat 5/24/08		
614		%0	Prepare & Submit Final (Rev 2) FOST 5 for Public Comment	21 d	Sun 5/25/08	Sat 6/14/08		
615		%0	Public Comment Period for FOST 5	30 d	Sun 6/15/08	Mon 7/14/08		
616		%0	Resolve/Incorporate Coments & Submit Final FOST 5 to DSS-DB	15 d	Tue 7/15/08	Tue 7/29/08		
617		%0	DSS-DB Reww & Send Final FOST to Hampton for Approval Signature (copies to DI	15 d	Wed 7/30/08	Wed 8/13/08	•	-
518		%0	Hampton Approve/Sign FOST	30 d	Thu 8/14/08	Fri 9/12/08		
519		%o	Deed Issued by CoE - Mobile	120 d	Sat 9/13/08	Sat 1/10/09		
520		%0	FOST 6	483 d	Tue 1/12/10	Sat 5/14/11		
521		%0	Prepare & Submit Internal Rev 0 FOST 6 to DSS-DB	P 09	Tue 1/12/10	Fn 3/12/10		
622		%0	DSS-DB Review & Submit Comments on Rev 0 FOST 6	45 d	Sat 3/13/10	Mon 4/26/10		
523		%0	Prepare & Submit Internal Rev 0.1 FOST 6 to DSS-DB	30 4	Thu 4/29/10	Fn 5/28/10		
524		%0	DSS-DB Review & Submit Comments on Rev 0.1 FOST 6	30 ¢	Sal 5/29/10	Sun 6/27/10		
525	٩	%0	Prepare & Submit Rev 1 FOST 6 to BCT	15 d	Mon 6/28/10	Mon 7/12/10		
626	BCT	<b>%</b> 0	BCT Review & Submit Comments on Rev 1 FOST 6	90 q	Tue 7/13/10	Wed 8/11/10		
627	٩	<b>%</b> 0	Prepare & Submit Rev 2 FOST 6 to BCT	9 OE	Thu 8/12/10	Fn 9/10/10		
628	BCT	%0	BCT Review & Submit Comments on Rev 2. FOST 6	15 d	Sat 9/11/10	Sat 9/25/10		
529		%0	Prepare & Submit Final (Rev 2) FOST 6 for Public Comment	21 d	Sun 9/26/10	Sal 10/16/10		
630		%0	Public Comment Period for FOST 6	30 d	Sun 10/17/10	Mon 11/15/10		
631		%0	Resolve/Incorporate Coments & Submit Final FOST 6 to DSS-DB	15 d	Tue 11/16/10	Tue 11/30/10		
532		%0	DSS-DB Revw & Send Final FOST to Hampton for Approval Signature (copies to Df	15 d	Wed 12/1/10	Wed 12/15/10		
533	T	%0	Hampton Approve/Sign FOST	30 d	Thu 12/16/10	Fri 1/14/11		
634		%0	Deed Issued by CoE - Mobile	120 d	Sat 1/15/11	Sat 5/14/11		
535		41%	CERCLA 5-Year Review	1972 d	Mon 8/19/02	Fri 1/11/08		
536	-	100%	Perform 1st 5-Year Review	158 d	Mon 8/19/02	Thu 1/23/03		
¥	-	%0	Perform 2nd 5-Year Review	225 d	Fri 6/1/07	Fri 1/11/08		
645	۵.	%0	Prepare & Submit Rev. 0 5-Year Review to BCT	60 d	Fn 6/1/07	Man 7/30/07		
546	BCT	%0	BCT Review & Submit Comments on Rev 0 5-Year Review	P 09	Tue 7/31/07	Fri 9/28/07		
547		%0	Respond to BCT Comments on Rev. 0 5-Year Review	30 d	Sat 9/29/07	Sun 10/28/07		
548	٩	%0	Prepare & Submit Rev. 1 5-Year Review	60 d	Sat 9/29/07	Tue 11/27/07		
549	BCT	%0	BCT Review of Rev. 1 5-Year Review w/ Concurrence	P OE	Wed 11/28/07	Thu 12/27/07		
<u>850</u>	٩	%0	Prepare & Submit Rev 2 5-Year Review	15 d	Fri 12/28/07	Fn 1/11/08		
551		%0	Submit Rev. 2 5-Year Review	P O	Fri 1/11/08	Fn 1/11/08		
552		%0	Preliminary Closeout Report (PCOR)	210 d	Sun 9/13/09	Sat 4/10/10		
353	٩	%0	Prepare & Submit Rev. 0 PCOR	60 d	Sun 9/13/09	Wed 11/11/09		
54	BCT	%0	BCT Review & Submit Comments on Rev O PCOR	60 d	Thu 11/12/09	Sun 1/10/10		
555		%0	Respond to BCT Comments on Rev 0 PCOR	30 d	Mon 1/11/10	Tue 2/9/10		
356	٩	%0	Prepare & Submit Rev 1 PCOR	60 d	Mon 1/11/10	Thu 3/11/10		
557	BCT	%0	BCT Review of Rev. 1 PCOR w/ Concurrence	30 d	Fn 3/12/10	Sat 4/10/10		
558	۵.	%0	EPA Approval of PCOR	ΡO	Sat 4/10/10	Sat 4/10/10		
								1
efens v. 1B	se Dist RAC Cle	tributic eanup P	n Center (Memphis) an Version 10	y 2007			11 of 12	

	Fmish	Sat 4/10/10	Sat 5/22/21	Thu 1/7/21	Mon 3/8/21	Tue 3/23/21	Wed 4/7/21	Fn 5/7/21	Sat 5/22/21	Sat 5/22/21	Sat 5/22/21	Sat 5/22/21
	Start	Sat 4/10/10	Tue 11/24/20	Tue 11/24/20	Fri 1/8/21	Tue 3/9/21	Tue 3/9/21	Thu 4/8/21	Sat 5/8/21	Sat 5/22/21	Sat 5/22/21	Sat 5/22/21
ure 5-1 Schedule	Duration	PO	180 d	45 d	60 d	15 d	30 q	90F	15 d	PO	P 0	PO
F Mas	Task Name	Construction Completion	Final Remedial Action Report (Final Closeout Report [FCOR])	Prepare & Submit Rev 0 Final RA Report FCOR to BCT	BCT Review & Submit Comments on Rev. 0 Final RA Report/FCOR	Respond to BCT Comments on Rev. 0 Final RA Report/FCOR	Prepare & Submit Rev. 1 Final RA Report/FCOR	BCT Review of Rev. 1 Final RA ReportFCOR	Prepare & Submit Rev. 2 Final RA Report/FCOR	Final RA Report/FCOR	Site Completion	Site Completion
	*	<b>%</b>	*0	%0	%0	%0	%0	%0	%0	%0	%0	%0
	BCT			٩.	BCT		٩	BCT	۹.	٩.	1	
	₽	659	660	661	662	663	664	665	666	667	668	699

.

12 of 12

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

•

January 2007

# TABLE 5-1MAJOR MILESTONES FY07 THROUGH FY09

Activity	BCP Version 10 Date	Expected Date
Dunn Field Source Areas Final RD (100%), Rev. 0 Submittal	14 January 2007	
Dunn Field Source Areas RA Work Plan – Fluvial SVE, Rev. 0 Submittal	27 January 2007	
Dunn Field Source Areas RA Work Plan – Loess/Groundwater, Rev. 0 Submittal	28 March 2007	
Dunn Field Source Areas Notice of RA Implementation – Fluvial SVE	4 May 2007	
Dunn Field Revised Proposed Remedial Plan, Rev. 0 Submittal	21 May 2007	
Dunn Field Record of Decision Amendment, Rev. 0 Submittal	20 July 2007	
Second 5-Year Review, Rev. 0 Submittal	30 July 2007	
Dunn Field Source Areas Notice of RA Implementation – Loess/Groundwater	3 October 2007	
Main Installation Interim RA Completion Report, Rev. 0 Submittal	9 November 2007	
Dunn Field Off Depot Final RD (100%), Rev. 0 Submittal	17 November 2007	
BRAC Cleanup Plan Version 11, Rev. 0 Submittal	30 November 2007	
Dunn Field Off Depot RA Work Plan, Rev. 0 Submittal	17 December 2007	
FOST 5 (Main Installation), Rev. 1 Submittal to BCT	10 March 2008	
Main Installation RA Remedy In Place	27 June 2008	
Dunn Field Off Depot Notice of RA Implementation	21 August 2008	
FOST 5 (Main Installation) Approval	12 September 2008	
BRAC Cleanup Plan Version 12, Rev. 0 Submittal	30 November 2008	

#### NOTES:

FOST: Finding of Suitability to Transfer

RA

Remedial Action

.

Remedial Design

RD:

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

## 6.0 TECHNICAL AND OTHER ISSUES TO BE RESOLVED

This section summarizes technical and other issues that have been or are yet to be resolved. This section is organized as the BCP Guidance (Fall 1995/September 1996 addendum) prescribes, although not every section includes unresolved issues.

#### 6.1 DATA USABILITY

At this time, there are no unresolved issues regarding data usability.

#### 6.2 INFORMATION MANAGEMENT

At this time, there are no unresolved issues with regard to managing information gathered and used in the Depot's environmental restoration and compliance programs.

## 6.3 DATA GAPS

This section summarizes unresolved issues pertaining to the determination and collection of data needed to complete the Depot environmental restoration program. As of 1 November 2006, there were data gaps regarding the extent of individual plumes on the MI; direction of groundwater flow at the south-central boundary of the MI; movement of the Off Depot plume west of Dunn Field; ability of bio-enhancements to degrade PCA in groundwater at Dunn Field; connections between the fluvial aquifer and deeper aquifers west of Dunn Field; and the source of groundwater contamination migrating onto Dunn Field from an off-site, upgradient source.

#### 6.3.1 BCT Action Items

The following BCT action items should be addressed at the Depot to identify and fill data gaps and to continue the environmental restoration process:

- Install additional monitoring wells to identify separate contaminant plumes, to develop compliance well networks on the MI and to aid in determining groundwater flow at the south-central boundary of the MI.
- Install additional CSM wells and conduct groundwater flow and contaminant transport modeling to improve the CSM in the area west of Dunn Field.

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

- Conduct a microcosm study to determine the most effective approach for enhanced bioremediation and incorporate the data into the Pre-Final Off-Depot Groundwater RD.
- Coordinate with USEPA and TDEC as appropriate in their investigation of the groundwater plume source area northeast of Dunn Field.

#### 6.3.2 Rationale

Effective analysis of data gaps will facilitate the implementation of the MI Groundwater RA and completion of the Dunn Field Source Areas and Off-Depot Groundwater RDs, so that the selected remedies can be effectively implemented.

#### 6.3.3 Status/Strategy

In 2006, contractors installed additional monitoring wells on the MI to further delineate lowconcentration plumes, to provide suitable compliance well networks and additional groundwater gradient data, and to evaluate the success of MNA. The data from these wells will be provided to the BCT in annual groundwater LTM reports and as appropriate during BCT meetings. Additional wells will be installed, if necessary.

In 2006, DDC completed the Dunn Field RDI in which contractors performed a membrane interface probe study and installed wells on Dunn Field. Additional wells were installed to the west of Dunn Field to investigate suspected gaps in the uppermost clay. The data will be provided in the Dunn Field RDI TM to be submitted concurrent with the 100% Source Areas RD. The hydrogeologic data is being incorporated into the groundwater modeling underway for the Off-Depot Groundwater RD.

In late 2006/early 2007, environmental contractors will collect fluvial aquifer soils and groundwater samples for use in a microcosm study to obtain data necessary to complete the enhanced bioremediation portion of the Off-Depot Groundwater RD. The data is scheduled to be presented in June 2007 and incorporated into the Pre-Final Off-Depot Groundwater RD.

TDEC and USEPA have completed an initial investigation of suspected groundwater contaminant sources upgradient (northeast) of Dunn Field. The suspected sites were determined to not be groundwater contaminant sources. Additional investigation upgradient of Dunn Field is to be completed by TDEC in 2007.

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

### 6.4 BACKGROUND LEVELS

At this time, there are no unresolved issues regarding background levels.

#### 6.5 RISK ASSESSMENTS

At this time, there are no unresolved issues regarding risk assessments.

#### 6.6 BASEWIDE REMEDIAL ACTION STRATEGY

At this time, there are no unresolved issues regarding base wide remedial action strategy. Issues regarding individual remedial actions are presented in Section 6.13.

## 6.7 GROUNDWATER INTERIM REMEDIAL ACTION AND LONG-TERM GROUNDWATER MONITORING

At this time there are no unresolved issues regarding the interim remedial action and long-term groundwater monitoring. In 2005, the BCT directed that IRA system operations be reviewed with the goal of improving cost-effectiveness while maintaining significant mass reduction at the facility boundary until the final remedy is in place. The optimization plan was submitted in February 2006 for review and action by the BCT. Although the BCT concurred with the plan, the City of Memphis would not revise the permitted discharge limits. At the April 2006 BCT meeting, the BCT decided not to continue the optimization plan due to the planned IRA termination following the Source Areas RA.

#### 6.8 EXCAVATION OF CONTAMINATED MATERIALS

At this time, there are no unresolved issues regarding the excavation of contaminated materials. In 2006, DDC submitted the final Disposal Sites RACR. On 25 August 2006, USEPA approved the Disposal Sites RACR. Excavation of shallow CVOC-contaminated soils has been added as a component of the Source Areas RA.

#### 6.9 PROTOCOLS FOR REMEDIAL DESIGN REVIEWS

At this time, there are no unresolved issues pertaining to the protocols for RD review.

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

#### 6.10 CONCEPTUAL MODELS

Groundwater modeling is being performed as part of the Off-Depot Groundwater RD, in part, to review the CSM with regard to migration of groundwater contamination. See Section 6.13 for more information.

#### 6.11 CLEANUP STANDARDS

Remedial goals (RGs) established in the Dunn Field ROD for the loess are being considered as part of the remedial action review described in Section 6.13. It is not clear that one of the selected remedial actions (thermal-enhanced SVE for Source Areas loess) can effectively achieve the RGs. It is also not clear that the RGs are necessary to meet the remedial action objective of protecting groundwater. This issue will be considered further by the BCT in 2007. The BCT does not anticipate that any change will occur prior to implementation of the Dunn Field Source Areas RA because duration of the RA is all that would be affected not the action itself or the final design.

#### 6.12 INITIATIVES FOR ACCELERATING CLEANUP

At this time, there are no unresolved issues pertaining to initiatives for accelerating cleanup. However, the BCT has concurred that the fluvial SVE component of the Source Areas remedial action should be implemented on an expedited basis. Although the Final Sources Areas RD is not scheduled for submittal until 14 January 2007, no changes to the fluvial SVE are necessary based on the BCT comments on the Pre-final Source Areas RD. The schedule presented in Figure 5-1 shows the Source Areas RA separated into two actions, including separate RAWPs; the Fluvial SVE implementation is scheduled to begin 4 May 2007 with the Loess/Groundwater implementation on 3 October 2007.

#### 6.13 REMEDIAL ACTIONS

This section summarizes unresolved issues pertaining to the remedial actions. As of 1 November 2006, there are technical issues regarding implementing the full-scale permeable reactive barrier component of the selected remedy for Dunn Field. Enhanced bioremediation is being considered as an alternative remedy.

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

#### 6.13.1 BCT Action Items

The following BCT action items should be addressed at the Depot to resolve issues regarding the remedial actions:

- Complete the ZVI PRB Implementation Study to document evaluation of the jetting method for PRB construction.
- Prepare a Request for Extension for the Dunn Field Final Off-Depot Groundwater RD.
- Perform additional data review or technical studies to evaluate use of enhanced bioremediation for the Off-Depot groundwater plume.
- Consider a Revised Proposed Plan and a ROD amendment for Dunn Field to select enhanced bioremediation for the Off-Depot groundwater plume.

#### 6.13.2 Rationale

Resolution of these issues will allow completion of the Dunn Field Off-Depot Groundwater RD, so that the selected remedies can be effectively designed and implemented.

#### 6.13.3 Status/Strategy

In May 2006, contractors completed construction of the ZVI PRB Implementation Study test wall and have collected several rounds of confirmation groundwater samples. Confirmation sampling will continue until January 2007. Contractors have provided preliminary data from the study at BCT meetings; the complete results will be provided in a TM to be submitted in December 2006.

At the October 2006 BCT meeting, the BCT agreed with the project team's finding that groundwater data collected since the Dunn Field ROD was approved has created a need to reconsider the selection of a ZVI PRB. The BCT also agreed that the ZVI PRB implementation study has identified several issues that would adversely impact the effectiveness and cost of a full-scale ZVI PRB. While the primary off-Depot contaminants, 1,1,2,2-tetrachloroethane and trichloroethylene, are considered to be biodegradable in natural systems, further study is considered necessary to evaluate compound-specific biodegradation, substrate preference, and effectiveness of bioaugmentation. The BCT

concurred that a Revised Proposed Plan and a ROD amendment be developed for use of enhanced bioremediation to treat groundwater in the Off Depot plume.

## 6.14 REVIEW OF SELECTED TECHNOLOGIES FOR APPLICATION OF EXPEDITED SOLUTIONS

At this time, there are no unresolved issues regarding review of selected technologies for application of expedited solutions. Based on results of the Dunn Field RDI, the BCT concurred that in situ thermal treatment will be used to enhance the selected remedy of SVE for the cleanup of the loess.

## 6.15 HOT-SPOT REMOVALS

At this time, there are no unresolved issues pertaining to hot-spot removals. No hot-spot removals were performed in 2006. Past removal actions are described in Table 3-3.

## 6.16 IDENTIFICATION OF CLEAN PROPERTIES

At this time, there are no unresolved issues pertaining to identification of clean properties.

## 6.17 OVERLAPPING PHASES OF THE CLEANUP PROCESS

At this time, there are no unresolved issues pertaining to overlapping phases of the cleanup process.

## 6.18 IMPROVED CONTRACTING PROCEDURES

DLA recognizes that there have been some challenges with respect to contracting with support agencies (AFCEE and CEHNC). However, DLA is committed to improving services contracts to ensure that site activities are not being impeded. DLA has stressed to the support agencies the need to plan ahead for end of fiscal year policies and contract modifications. DLA has also implemented frequent communication calls with the service agencies and contractors to plan future contract needs well in advance of planned work activities.

#### 6.18.1 BCT Action Items

The following BCT action items should be addressed at the Depot to resolve issues regarding improved contracting procedures:

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

- Continue to plan for the end of fiscal year policies and contract modifications to ensure activities are not impeded.
- Continue communication calls with the service agencies and contractors to plan future contracts well in advance of planned work activities.

#### 6.18.2 Rationale

DLA's commitment to improving service contracts will facilitate implementation of the various phases of design and field related work so OPS can be obtained.

#### 6.18.3 Status/Strategy

DLA is focused on improving communication between the support agencies and the contractors. DLA has emphasized to the support agencies that contracting has a significant impact on the Depot program and that work activities must be identified well in advance for planning and scheduling purposes. DLA has implemented frequent communication calls with the service agencies and the contractors to plan and identify contracting needs well in advance of work activities.

## 6.19 INTERFACING WITH THE COMMUNITY REDEVELOPMENT PLAN

At this time, there are no unresolved issues pertaining to interfacing with the community redevelopment plan.

## 6.20 BIAS FOR CLEANUP INSTEAD OF STUDIES

Additional design-related investigations or remedy optimization studies will be considered when there is a need to improve or enhance the proposed remedies or their operational cost effectiveness. The only study currently planned is to aid completion of the Off-Depot Groundwater RD. As stated in Section 6.13, the study will evaluate compound-specific biodegradation, substrate preference, and effectiveness of bioaugmentation. The study is anticipated to include use of three potential substrates for biostimulation, with and without bioaugmentation using a proprietary consortium of bacteria. A control test will also be performed without biostimulation or bioaugmentation.

#### TECHNICAL AND OTHER ISSUES TO BE RESOLVED

# 6.21 EXPERT INPUT ON CONTAMINATION AND POTENTIAL REMEDIAL ACTIONS

At this time, there are no unresolved issues pertaining to expert input on contamination and potential RAs.

## 6.22 PRESUMPTIVE REMEDIES

At this time, there are no unresolved issues regarding presumptive remedies. The BCT reviewed the use of SVE, the presumptive remedy selected for VOCs in subsurface soils at Dunn Field, for the loess. Based on the results of the Dunn Field RDI, the BCT concurred to use in situ thermal treatment as an enhancement to the SVE system for the loess.

## 6.23 PARTNERING (USING INNOVATIVE MANAGEMENT, COORDINATION, AND COMMUNICATION TECHNIQUES)

At this time, there are no unresolved issues with regard to partnering.

# 6.24 UPDATING THE EBS AND NATURAL/CULTURAL RESOURCES DOCUMENTATION

At this time, there are no unresolved issues pertaining to the updating of the EBS and natural and cultural resources documentation.

## 6.25 IMPLEMENTING THE POLICY FOR ON-SITE DECISION MAKING

At this time, there are no unresolved issues pertaining to implementing the policy for on-site decision making.

#### 7.0 REFERENCES

A.T. Kearney, Inc. 1990. RCRA Facilities Assessment Report. Prepared for the U.S. Environmental Protection Agency.

Barge, Waggoner, Sumner, and Cannon. 1996. Lead-Base Paint Risk Assessment for the Defense Distribution Depot Memphis, Tennessee.

Chemical Systems Laboratory. 1981. Installation Assessment of Defense Depot Memphis, Memphis, Tennessee.

CH2M Hill. 1995a. Generic Remedial Investigation/Feasibility Study Work Plan, Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 1995b. Operable Unit 1 - Field Sampling Plan, Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 1995c. Operable Unit 2 - Field Sampling Plan, Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 1995d. Operable Unit 3 - Field Sampling Plan. Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 1995e. Operable Unit 4 - Field Sampling Plan, Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 1995f. Record of Decision for Interim Remedial Action of the Groundwater at Dunn Field (OU-1) at the Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 1995g. Screening Sites Field Sampling Plan for Defense Distribution Depot Memphis. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 1998a. Screening Sites Letter Reports. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 1998b. Remedial Investigation Sites Letter Reports. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 1998c. Revised BRAC Parcel Summary Reports. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 1999. Final Streamlined Risk Assessment Parcel 3 Technical Memorandum. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 2000a. Main Installation Remedial Investigation Report, Volumes 1 through IV. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2000b. Main Installation Feasibility Study for Groundwater. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2000c. Main Installation Feasibility Study for Soils. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2001a. Data Collection Plan for Long-Term Operational Areas (LTOAs), Main Installation. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2001b. Main Installation Record of Decision. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2001c. Well Construction and Sampling Techniques for LTOA Monitoring Wells Associated with SS42/SS43, NE6 (Building T-702), and SS80. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2001d. Soil Vapor Extraction Treatability Study Work Plan. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2002a. Dunn Field Remedial Investigation Report, Rev. 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

-------. 2002b. Main Installation Remedial Design Work Plan, Rev. 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 2003a. Dunn Field Feasibility Study, Rev. 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2003b. PCP Dip Vat Soil Investigation Work Plan, Rev 1. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2003c. Dunn Field Record of Decision, Rev. 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 2003d. Memphis Depot Five-Year Review. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2003e. Dunn Field In-situ Chemical Reduction through Zero Valent Iron Bench-Scale and Pilot Tests Treatability Study Work Plan. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2003f. Disposal Sites Pre-Design Investigation Data Collection Plan, Rev 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

———. 2004a. Technical Memorandum Report, Results of Soil Investigation at Former PCP Dip Vat and Underground PCP Storage Tank Sites, Main Installation. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2004b. Main Installation Remedial Design, Rev. 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

-------. 2004c. Dunn Field Disposal Sites Remedial Design, Rev. 2. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2004d. Early Implementation of Selected Remedy Technical Memorandum. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 2005. Dunn Field Remedial Design Investigation Work Plan, Rev. 1. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

——. 2006. Dunn Field Zero-Valent Iron Permeable Reactive Barrier Implementation Study Work Plan, Rev. 1. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

Defense Distribution Depot, Memphis Tennessee (DDMT). 1992. Spill Response for DDMT 1990, 1991, 1992.

——. 1993. 1993 Spill Response Summary.

------. 1996. 1996 Spill Response Checklist.

Department of Defense. 1996. BRAC Cleanup Plan (BCP) Guidebook with addendum.

Frontline Corporate Communications. 1999. Final Community Relations Plan for the Memphis Depot.

Harland Bartholomew & Associates, Inc. 1988. Master Plan Report, Defense Depot Memphis, Tennessee.

Jacobs Engineering Services, Inc. 2000. Remediation Report, Removal Action in Parcels 28 and 35 (Old Paint Shop and Maintenance Area). Prepared for U.S. Army Corps of Engineers, Mobile.

———. 2001a. Decontaminate and Closure of Permitted Container Storage Facility (Building 308) and Removal of Lead Impacted Soil at Building 949. Prepared for U.S. Army Corps of Engineers, Mobile.

------. 2001b. Decontamination Report and Certification for Closure of Permitted Container Storage Facility (Building T-308). Prepared for U.S. Army Corps of Engineers, Mobile.

———. 2003. Remediation Report, Removal Action at Site 60. Prepared for U.S. Army Corps of Engineers, Mobile.

Law Environmental. 1990a. Feasibility Study Final Report. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

------. 1990b. Remedial Investigation Final Report of DDMT. Prepared for U.S. Army Corps of Engineers, Huntsville Division.

MACTEC Engineering and Consulting, Inc. 2004a. Rev. 1 Early Implementation of Selected Remedy Work Plan. Prepared for U.S. Air Force Center for Environmental Excellence.

------. 2004b. Dunn Field Disposal Sites Work Plan, Rev. 1. Prepared for U.S. Air Force Center for Environmental Excellence.

------. 2005a. Early Implementation of Selected Remedy Interim Remedial Action Completion Report, Rev. 1. Prepared for U.S. Air Force Center for Environmental Excellence.

------. 2005b. Main Installation Remedial Action Work Plan, Rev. 1. Prepared for U.S. Air Force Center for Environmental Excellence.

——. 2006. Dunn Field Disposal Sites Remedial Action Completion Report, Rev. 1. Prepared for U.S. Air Force Center for Environmental Excellence.

National Census Report, August 2000.

OHM/IT Remediation Services, Inc. 1999a. Post Removal Report: Contaminated Soil Remediation Family Housing Area, Memphis Depot, Tennessee, Volumes I and II. Prepared for U.S. Army Corps of Engineers, Mobile.

———. 1999b. Post Removal Report: Contaminated Soil Remediation Cafeteria Building, Memphis Depot, Tennessee. Prepared for U.S. Army Corps of Engineers, Mobile.

Parsons Environmental Science. 1999. Final Engineering Evaluation and Cost Analysis (EE/CA) for the Removal of Chemical Warfare Materiel, Former Defense Distribution Depot Memphis, Tennessee.

The Pickering Firm, Incorporated. 1993a. Asbestos Identification Survey for Buildings 144-209.

- ———. 1993b. Asbestos Identification Survey for Buildings 210-257.

------. 1993d. Storage Tank Survey.

- . 1994a. Asbestos Identification Survey of Buildings 139-198.
- ------. 1994b. Asbestos Identification Survey for Buildings 211-795.
- ———. 1994c. Asbestos Identification Survey for Buildings 229-309.

ò

- ———. 1994d. Asbestos Identification Survey of Buildings 319-359.
- ———. 1994e. Asbestos Identification Survey of Buildings 319-490.
- ------. 1994f. Asbestos Identification Survey for Buildings 429-530.

- . 1994i. Asbestos Identification Survey of Buildings 737-793.
- -----. 1994j. Asbestos Identification Survey of Buildings 1084-25.
- . 1994k. Asbestos Identification Survey of Buildings 801-995.

Prewitt & Associates, Inc. 1997. Archeological Survey of Two Parcels at Defense Distribution Depot Memphis, Tennessee.

Radian International. 1999. Final Baseline Risk Assessment for Golf Course Impoundments at the Defense Distribution Depot Memphis, Tennessee.

TRC Mariah Associates, Inc. 1997. A Cultural Resources Inventory and Assessment at the Defense Distribution Depot Memphis, Tennessee.

U.S. Department of Defense. 1995. BRAC Cleanup Plan (BCP) Guidebook with 1996 addendum.

UXB International, Inc. 2001. Final Report Chemical Warfare Materiel Investigation and Removal Action at Defense Depot Dunn Field. Prepared for U.S Army Engineering and Support Center Huntsville.
883 252

.

.

### Appendix A

.

Table A-1

TABLE A-1 FISCAL YEAR FUNDING REQUIREMENTS

			Z	STALLATIO	N BUDGET				n di nu d I
ΑCTIVITY	FY05	FY06	FY07	FY08	<b>FY09</b>	FY10	FY11	FY12	FY13- Completion
Restoration	3,087,000	4,469,995	9,098,562	5,600,758	1,151,817	1,404,597	1,106,512	1,058,031	7,446,123
Compliance	0	0	0	0	0	0	0	0	0
Planning	125,000	0	0	0	0	0	0	0	0
Management	645,000	110,250	682,392	420,207	86,387	63,207	49,793	47,611	335,076
TOTAL	3,857,000	4,580,245	9,780,954	6,020,965	1,238,203	1,467,804	1,156,305	1,105,642	7,781,199

s,

Defense Distribution Center (Memphis)

1 of 1

January 2007

883 253

.

883 254

### Appendix B

Table B-1

I

Î

# **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
Installation Assessment of Defense Depot Memphis, Tennessee Report No. 191	1981	U.S. Army Toxic and Hazardous Materials Agency
Geohydrologic Study No. 38-26-0195-83	1982	U.S. Army Environmental Hygiene Agency
Environmental Audit No. 43-21-1387-86	1985	U.S. Army Environmental Hygiene Agency
Water Quality Biological Study No. 32-0733-86, Investigation of Fire Reservoir	1986	U.S. Army Environmental Hygiene Agency
Ground Water Consultation No. 38-26-0815-87, Collection and Analysis of Ground Water Samples	1986	U.S. Army Environmental Hygiene Agency
Summary Report, On-Site Remedial Activities at the Defense Depot Memphis	1986	O.H. Materials Company
Inter-Office Memorandum regarding January 19, 1988 Spandome Collapse	1988	City of Memphis
Remedial Investigation Final Report	1990	Law Environmental, Inc.
Remedial Investigation Final Report Appendices	1990	Law Environmental, Inc.
Feasibility Study Final Report	1990	Law Environmental, Inc.
RCRA Facility Assessment	1990	Environmental Protection Agency and A.T. Kearney
Hazard Ranking System Score	1991	Environmental Protection Agency
Federal Register February 1992/Sites Proposed for the National Priorities List	1992	Environmental Protection Agency/Jon D. Johnston
Federal Register October 14, 1992/Sites Promulgated to the National Priorities List	1992	Environmental Protection Agency
Final Pump Test Work Plan	1992	Engineering-Science, Inc.
Pumping Test Technical Memorandum	1992	Engineering-Science, Inc.
Non-Stockpile Chemical Materiel Program, Survey and Analysis Report	1993	U.S. Army Chemical Materiel Destruction Agency
Final Focused Feasibility Study: Dunn Field	1994	Engineering-Science, Inc.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

**883** 255

1 of 7

# **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
Environmental Assessment, Removal Action for Groundwater	1994	Engineering-Science, Inc.
Final Proposed Groundwater Action Plan	1994	U.S. Army Corps of Engineers and CH2M Hill
No Further Action Report Draft	1994	U.S. Army Corps of Engineers and CH2M Hill
Electromagnetic and Magnetic Surveys at Dunn Field, Defense Depot Memphis, Tennessee	1994	U.S. Army Corps of Engineers Waterways Experiment Station
Groundwater Monitoring Results Report for Defense Depot Memphis, Tennessee, Volumes 1 through 9	1994	Environmental Science & Engineering Inc.
High Resolution Seismic Reflection Survey to Image the Top and Bottom of a Shallow Clay Layer at the Memphis Defense Depot, Memphis, Tennessee	1994	Kansas Geological Survey
Generic Quality Assurance Project Plan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Generic Remedial Investigation/Feasibility Study Workplan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Screening Sites Field Sampling Plan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Operable Unit 1 Field Sampling Plan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Operable Unit 2 Field Sampling Plan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Operable Unit 3 Field Sampling Plan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Operable Unit 4 Field Sampling Plan Final	1995	U.S. Army Corps of Engineers and CH2M Hill
Public Health Assessment for USA Defense Depot Memphis	1995	U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry
Ordnance and Explosive Waste Chemical Warfare Materiels, Archives Search Report for Memphis Defense Depot	1995	U. S. Army Corps of Engineers - St. Louis
Federal Facilities Agreement	1995	Environmental Protection Agency, Tennessee Department of Environment and Conservation, and Defense Depot Memphis, Tennessee
Sediment Sampling Analysis Report	1996	U.S. Army Space and Strategic Defense Command

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

2 of 7

•

I

I

Ĩ

ļ

# **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
Record of Decision for Interim Remedial Action of the Groundwater at Dunn Field (OU-1) at the Defense Distribution Depot Memphis, Tennessee	1996	U.S. Army Corps of Engineers and CH2M Hill
Concurrence Letters for the Record of Decision on the Interim Remedial Action for Groundwater at Dunn Field	1996	Environmental Protection Agency and the Tennessee Department of Environment and Conservation
Interim Remedial Action for Groundwater at Dunn Field	1996	U.S. Army Corps of Engineers and CH2M Hill
Final Environmental Assessment for Master Interim Lease at Defense Distribution Depot Memphis	1996	U.S. Army Corps of Engineers and Tetra Tech, Inc.
Environmental Baseline Survey	1996	Woodward-Clyde, Inc.
Groundwater Characterization Data Report	1998	U.S. Army Corps of Engineers and CH2M Hill
Revised Final BRAC Parcel Summary Reports	1998	U.S. Army Corps of Engineers and CH2M Hill
Final Remedial Investigation Sites Letter Reports	1998	U.S. Army Corps of Engineers and CH2M Hill
Final Screening Sites Letter Reports	1998	U.S. Army Corps of Engineers and CH2M Hill
Final Background Sampling Program Report	1998	U.S. Army Corps of Engineers and CH2M Hill
Final Preliminary Risk Evaluation	1998	U.S. Army Corps of Engineers and CH2M Hill
Final Baseline Risk Assessment for Golf Course Impoundments	1999	U.S. Army Corps of Engineers and Radian International, Inc.
A Cultural Resources Inventory and Assessment at Defense Distribution Depot Memphis, Tennessee	1997	U.S. Army Corps of Engineers and TRC Mariah Associates, Inc
Archeological Survey of Two Parcels at Defense Distribution Depot Memphis, Tennessee	1997	U.S. Army Corps of Engineers and Prewitt & Associates, Inc.
Final Environmental Assessment of BRAC 95 Disposal and Reuse of Defense Depot Memphis Tennessee	1998	Tetra Tech, Inc., U.S. Army Corps of Engineers Mobile District and U.S. Army Materiel Command,
Final Streamlined Risk Assessment Parcel 3 Technical Memorandum	1999	U.S. Army Engineering and Support Center Huntsville and CH2M Hill
Post Removal Report, Family Housing Area, Memphis Depot, Tennessee, Volumes I and II	1999	U.S. Army Corps of Engineers Mobile and OHM Remediation Services, Corp.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

883 257

3 of 7

## **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
Post Removal Report, Cafeteria Building, Memphis Depot, Tennessee	1999	U.S. Army Corps of Engineers Mobile and OHM Remediation Services, Corp.
Final Engineering Evaluation and Cost Analysis (EE/CA), Old Paint Shop and Maintenance Area, Parcels 35 and 28	1999	U.S. Army Engineering Support Center Huntsville and CH2M Hill
Final Engineering Evaluation and Cost Analysis (EE/CA) for the Removal of Chemical Warfare Materiel, Former Defense Distribution Depot Memphis, Tennessee	1999	U.S. Army Corps of Engineers Mobile and Parsons Environmental Science, Inc.
Interim Remedial Action Groundwater Extraction System, Project Documentation, Volumes I and II	1999	Memphis Depot Caretaker, U.S. Army Corps of Engineers Mobile District and OHM Remediation Services Corp.
Final Community Relations Plan	1999	Memphis Depot Caretaker and Frontline Corporate Communications
Project Closure Report, Parcels 28/35, Old Paint Shop and Maintenance Area	2000	U.S. Army Corps of Engineers, Mobile District and Jacobs/Sverdrup Inc.
Main Installation Remedial Investigation Report	2000	U.S. Army Engineering and Support Center Huntsville and CH2M Hill
Main Installation Feasibility Studies for Groundwater and Soil	2000	U.S. Army Engineering and Support Center Huntsville and CH2M Hill
Dunn Field Remedial Investigation Field Sampling Plan Addendum II	2000	U.S. Army Engineering and Support Center Huntsville and CH2M Hill
Annual Operations Report, Groundwater Interim Remedial Action, Dunn Field	2000	U.S. Army Corps of Engineers, Mobile, AL, and OHM Remediation Services Corp.
Remedial Field Sampling Plan Addendum II for Dunn Field	2000	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Data Collection Plan for Long-Term Operational Areas (LTOAs), Main Installation	2001	U.S. Army Engineering and Support Center Huntsville and CH2M Hill
Well Construction and Sampling Techniques for LTOA Monitoring Welts Associated with SS42/SS43, NE6 (Building T-702), and SS80	2001	U.S. Army Engineering and Support Center Huntsville and CH2M Hill
Soil Vapor Extraction Treatability Study Work Plan	2001	U.S. Army Engineering and Support Center Huntsville and

.

883 258

January 2007

Î

# **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
		CH2M Hill
Decontaminate and Closure of Permitted Container Storage Facility (Building 308) and Removal of Lead Impacted Soil at Building 949	2001	U.S. Army Corps of Engineers South Atlantic Division, Mobile, and Jacobs Engineering Services
Decontamination Report and Certification for Closure of Permitted Container Storage Facility (Building T-308)	2001	U.S. Army Corps of Engineers South Atlantic Division, Mobile, and Jacobs Engineering Services
Main Installation Record of Decision	2001	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Final Report Chemical Warfare Materiel Investigation and Removal Action at Defense Depot Dunn Field	2001	U.S. Army Engineering and Support Center Huntsville, AL, and UXB International
Annual Operation and Maintenance Summary Report for Year 2000, Groundwater Interim Remedial Action, Dunn Field	2001	U.S. Army Corps of Engineers, Mobile, AL, and Jacobs Engineering Group
Revision 2 Dunn Field Remedial Investigation Report	2002	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Revision 2 Main Installation Remedial Design Workplan	2002	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Annual Operation and Maintenance Summary Report for Year 2001, Groundwater Interim Remedial Action, Dunn Field	2002	U.S. Army Corps of Engineers, Mobile, AL, and Jacobs Engineering Group
Enhanced Bioremediation Treatability Study Work Plan	2002	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field Site 60 Engineering Evaluation/Cost Assessment	2002	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field Site 60 Action Memorandum	2002	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field Site 60 Remediation Report	2003	U.S. Army Corps of Engineers, Mobile, AL, and Jacobs Engineering Group
Dunn Field Soil Vapor Extraction Treatability Study Work Plan	2002	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill

.

5 of 7

•

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

January 2007

# **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
Dunn Field Disposal Sites Pre-Design Investigation Data Collection Plan	2003	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field In-situ Chemical Reduction through Zero Valent Iron Bench-Scale and Pilot Tests Treatability Study Work Plan	2003	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Revision 2 Dunn Field Feasibility Study	2003	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Annual Operation and Maintenance Summary Report for Year 2002, Groundwater Interim Remedial Action, Dunn Field	2003	U.S. Army Corps of Engineers, Mobile, AL, and Jacobs Engineering Group
Installation of up-gradient monitoring wells near Dunn Field	2003	U.S. Army Corps of Engineers, Mobile, AL, and Jacobs Engineering Group
Dunn Field Record of Decision	2004	U.S. Army Engineering and Support Center Huntsville, At, and CH2M Hill
Main Installation Remedial Design	2004	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field Disposal Sites Remedial Design	2004	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Technical Memorandum: Early Implementation of Selected Remedy Component to Address Groundwater Contamination West of Dunn Field	2004	U.S. Army Engineering and Support Center Huntsvilte, AL, and CH2M Hill
Memorandum for File Subject: Technical Memorandum: Early Implementation of Selected Remedy Component to Address Groundwater Contamination West of Dunn Field	2004	BRAC Cleanup Team
Early Implementation of Selected Remedy Work Plan	2004	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.
Remedial Action Sampling and Analysis Plan Volume I: Field Sampling Plan	2004	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.
Remedial Action Sampling and Analysis Plan Volume II: Quality Assurance Project Plan	2004	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.

Defense Distribution Center (Memphis) Rev. 1 BRAC Cleanup Plan Version 10

6 of 7

January 2007

1

: . .

1

# **TECHNICAL DOCUMENTS SUMMARY**

Document	Year	Author
Dunn Field Disposal Sites Remediał Action Work Plan	2004	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.
Early Implementation of Selected Remedy Interim Remedial Action Completion Report	2005	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.
Main Installation Remedial Action Work Plan	2005	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.
Dunn Field Remedial Design Investigation Work Plan	2005	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field Zero-Valent Iron Permeable Reactive Barrier Implementation Study Work Plan	2006	U.S. Army Engineering and Support Center Huntsville, AL, and CH2M Hill
Dunn Field Disposal Sites Remedial Action Completion Report	2006	U.S. Air Force Center for Environmental Excellence and MACTEC Engineering and Consulting, Inc.

**Defense Distribution Center (Memphis)** Rev. 1 BRAC Cleanup Plan Version 10

•

January 2007

883 261

### Appendix C

Contains summaries of the following documents. Complete copies located at Memphis Depot information repositories:

Dunn Field Interim Record of Decision Parcel 35 and 28 Action Memorandum Chemical Warfare Materiel Action Memorandum Main Installation Record of Decision Site 60 Action Memorandum Dunn Field Record of Decision Early Implementation of Selected Remedy Memorandum of Agreement and Technical Memorandum



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

- 345 COURTLAND STREET, N.E. ATLAN 1A, GEONGIA 30365

May 1, 1996

4WD-FFB

### Certified Mail Return Receipt Requested

Colonel Michael J. Kennedy, Commander Defense Distribution Depot Memphis 2163 Airways Boulevard Memphis, Tennessee 38114-5210

SUBJ: Concurrence with Interim Record of Decision, Operable Unit 1 Defense Distribution Depot Memphis, Tennessee

Dear Col. Kennedy:

The U.S. Environmental Protection Agency (EPA) Region IV has reviewed the above referenced decision document and concurs with the Interim Record of Decision (IROD) for groundwater at Operable Unit 1, Dunn Field, as supported by the Remedial Investigation in progress.

The selected remedy is Alternative 8 in the IROD. EPA concurs with the selected remedy as detailed in the IROD with the following stipulation: It is understood that the selected interim remedy for Operable Unit 1 may not be the final remedial action to address all media potentially affected by past disposal practices at this unit.

This action is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action and is cost effective.

Sincerel Richard D. Green

Printed on Recyclod Paper

Acting Director Waste Management Division

cc: Jordan English, Tennessee Department of Environment & Conservation



### 883 264

### STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION MEMPHIS ENVIRONMENTAL FIELD OFFICE SUITE E-645, PERIMETER PARK 2510 MT. MORIAH MEMPHIS, TENNESSEE 38115-1520

April 24, 1996

Commander Defense Distribution Depot Memphis Attn: DDMT-DE (Ms. Christine Kartman) 2163 Airways Blvd., Memphis, Tennessee 38114-5210

Re: Concurrence for the Record of Decision for Interim Remedial Action of the Groundwater at Dunn Field (OU-1) at the Defense Depot site, Memphis, Shelby County, Tennessee, April 1996, TDSF #79-736, cc 82

Dear Ms. Kartman;

The Tennessee Division of Superfund (TDSF) Memphis Field Office (MFO) has reviewed the Interim Remedial Action Record of Decision for the Groundwater at Dunn Field, for the Defense Depot site dated April 1996 referenced above.

The Tennessee Department of Environment and Conservation (TDEC) is in concurrence with the selected remedy, a pump and treat containment alternative, Alternative 8 as described. TDEC has been actively involved with the development of the alternatives as well as the selection process through closely coordinated project management among Base Closure Team (BCT) members and extended BCT members.

This concurrence is provided within the authority of the Federal Facilities Agreement (FFA) for the Defense Depot, the Defense Department/State Memorandum of Agreement (DSMOA), and the delegated powers of the Commissioner of TDEC as part of the President's five step Base Cleanup Plan (BCP) process.

Sincerely,

C:

! V M

Clint Willer, Director Tennessee Division of Superfund

TDSF, NCO TDSF, MFO Dann Spariosu United States Environmental Protection Agency Federal Facilities Branch 345 Courtland Street, N.E. Atlanta, GA 30365

للمديرة الروالم

