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File: 541.460.000n
C.H.

# THE MEMPHIS DEPOT
# TENNESSEE

# ADMINISTRATIVE RECORD
# COVER SHEET

AR File Number 821

File:
C.H. 212.700.000b

AR# 821

**THIS INSTRUMENT PREPARED BY:**
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U.S. Army Corps of Engineers, Mobile District
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Mobile, AL 36628-0001

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U.S. Army Southern Region Environmental Office
101 Marietta St. NW Suite 3120
Atlanta, GA 30303-2711

**STATE OF TENNESSEE )**

**COUNTY OF SHELBY )**

## NOTICE OF LAND USE RESTRICTIONS

**THIS NOTICE OF LAND USE RESTRICTIONS** is made and recorded in the Shelby County Register of Deeds office by the **UNITED STATES OF AMERICA**, being the lawful owner of certain real property located in the City of Memphis, Shelby County, Tennessee, acting by and through the United States Army's property disposal agent, under and pursuant to the requirements of Tennessee Code, Section 68-212-225.

**WITNESSETH THAT:**

WHEREAS, Tennessee Code, Section 68-212-225 provides that upon a determination by the Commissioner of the Tennessee Department of Environment and Conservation (TDEC) that land use restrictions are the appropriate remedial action at any remediation, contamination, cleanup, closure or Brownfield project, the Commissioner shall, with the consent of the owner of the site file or cause to be filed, a notice of land use restrictions (hereinafter referred to as a Notice) in the register of deeds office in the appropriate county; and

WHEREAS, the former Defense Distribution Center (Memphis) (hereafter referred to as the Memphis Depot) is a National Priorities Listed site under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA) 42 U.S.C. 6901 *et seq.* and is undertaking response actions to address the environmental contamination pursuant to a *Federal Facilities Agreement for the Defense Depot Memphis Tennessee* between the U.S. Environmental Protection Agency (EPA), the TDEC and the Defense Logistics Agency (DLA); and

**DEFENSE LOGISTICS AGENCY**
DEFENSE DISTRIBUTION CENTER
2001 MISSION DRIVE
NEW CUMBERLAND, PA 17070-5000

IN REPLY REFER TO

DDC DES E

February 7, 2005

MEMORANDUM FOR: USEPA – Region 4 (Turpin Ballard)
State of Tennessee Department of Environment and Conservation (Memphis Field Office – Evan Spann)
City of Memphis Division of Planning and Development
The Depot Redevelopment Corporation
City of Memphis/Shelby County Water Quality Branch
Hampton Roads Field Office through HQ DLA BRAC Office (Jeanne Masters)

SUBJECT: Recordation of the Notice of Land Use Restrictions for the Main Installation, Former Defense Distribution Depot Memphis, Tennessee (DDMT)

Attached is the signed copy of the Notice of Land Use Restrictions for the Main Installation (MI) of the former DDMT in Memphis, Tennessee. This document, along with the Map 1, was recorded at the City of Memphis/Shelby County Register of Deeds Office on Wednesday, January 26, 2005. A receipt documenting the recordation is attached to this cover letter. Recordation of the document was made in accordance with the commitments made in the accepted Land Use Control Implementation Plan for the MI.

For more information, please don't hesitate in contacting David Nelson, Project Manager for CH2MHILL at (770) 604-9182 ext394.

MICHAEL A. DOBBS
Environmental Program Manager

Attachment on CD ROM:
Final MI Notice of Land Use Restrictions

Federal Recycling Program Printed on Recycled Paper

# *Tom Leatherwood*

Shelby County Register

As evidenced by the instrument number shown below, this document has been recorded as a permanent record in the archives of the Office of the Shelby County Register.

05014108

01/26/2005 - 11:09 AM

22 PGS : R - MISCELLANEOUS

BOBBY 288360-5014108

| | |
|---|---|
| VALUE | 0.00 |
| MORTGAGE TAX | 0.00 |
| TRANSFER TAX | 0.00 |
| RECORDING FEE | 110.00 |
| DP FEE | 2.00 |
| REGISTER'S FEE | 0.00 |
| WALK THRU FEE | 0.00 |
| TOTAL AMOUNT | 112.00 |

TOM LEATHERWOOD

REGISTER OF DEEDS SHELBY COUNTY TENNESSEE

160 N. Main St., Suite 519 ~ Memphis, Tennessee 38103 ~ (901) 545-4366
http://register.shelby.tn.us

WHEREAS, the TDEC (along with the EPA and the DLA) identified in the Memphis Depot Main Installation (MI) CERCLA Record of Decision (ROD) [CH2MHill September 2001] land use controls (LUCs) as part of the selected remedy to protect human health and the environment by preventing unrestricted access and unacceptable exposure to residual contamination; and

WHEREAS, the LUCs for the MI are, along with the LUC monitoring requirements, described in a Land Use Controls Implementation Plan (LUCIP) that is part of the Remedial Design (RD) [CH2MHill August 2004] for the MI and are being implemented as part of the remedial action; and

WHEREAS, the LUCIP provides that the Army's property disposal agent will prepare a Notice in compliance with Tennessee Code, Section 68-212-225 and record it in the Shelby County Register of Deeds office.

NOW THEREFORE, pursuant to the LUCIP and in compliance with Tennessee Code, Section 68-212-225, the UNITED STATES OF AMERICA, as owner of the subject property, by and through the United States Army's property disposal agent, provides **NOTICE OF LAND USE RESTRICTIONS** as follows on the hereinafter-described real property.

## LAND USE RESTRICTIONS

The land use restrictions for the MI are as follows:

1. No residential land use or other child-occupied facilities, including daycare on the MI [depicted in Map 1 attached hereto].

2. No production/consumptive use of groundwater or drilling groundwater wells* on the MI [depicted in Map 1 attached hereto].

3. No digging in soil material 10 feet below the land surface due to elevated pentachlorophenol (PCP) soil concentrations at the Former PCP Dipvat Area (SWMU 42) and the Former Underground PCP Tank Area (SWMU 43) [depicted in Figure 1 below and Map 1 attached hereto].

*Note: The prohibition of drilling groundwater wells does not apply to monitoring or underground injection wells installed as part of the CERCLA remedial action.

## LEGAL DESCRIPTION

All that tract or parcel of land lying and being in the 2nd Civil District, Shelby County, Tennessee, more particularly described as follows:

Beginning at a concrete monument stamped "4B" which is on the west right-of-way line of Airways Boulevard and at plane coordinate position North 278,903.450 feet and East

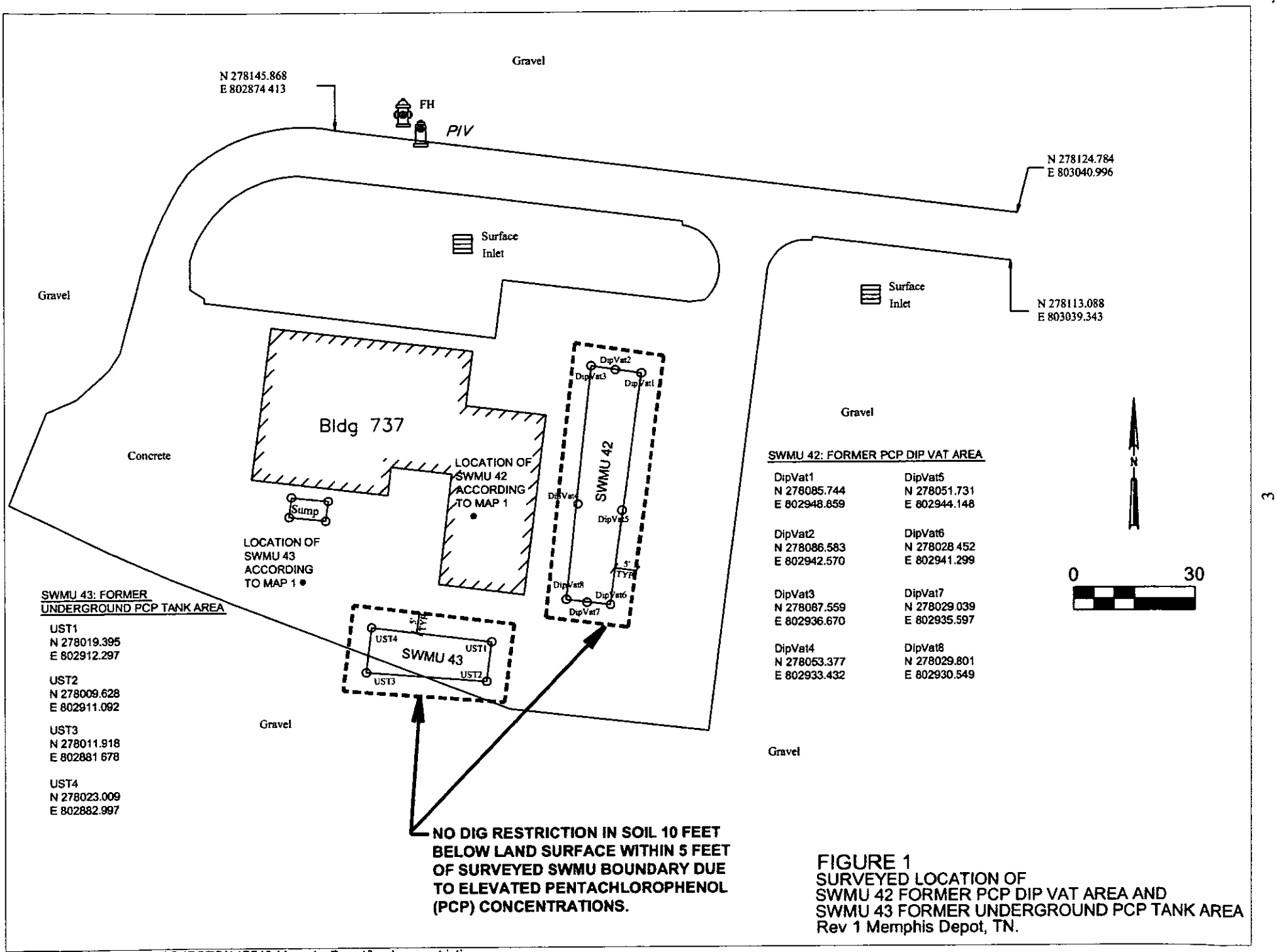



FIGURE 1
SURVEYED LOCATION OF
SWMU 42 FORMER PCP DIP VAT AREA AND
SWMU 43 FORMER UNDERGROUND PCP TANK AREA
Rev 1 Memphis Depot, TN.

CH2MHILL:ATL/CAD1/PROJECTS/147543 MemphisDepot/landuse restrictions

807,286.020 feet, based on Lambert Conformal Projection, Tennessee State Plane Coordinate System;

Thence S 04° 17' 04" W along the west right-of-way line of said Airways Boulevard a distance of 698.19 feet;

Thence N 85° 45' 12" W a distance of 465.23 feet;

Thence S 04° 14' 09" W a distance of 1,270.94 feet;

Thence N 88° 30' 45" E a distance of 39.92 feet;

Thence S 04° 10' 36" W a distance of 396.41 feet;

Thence S 85° 41' 17" E a distance of 252.89 feet;

Thence S 21° 48' 01" E a distance of 26.22 feet;

Thence S 03° 14' 23" W a distance of 811.72 feet;

Thence S 86° 15' 05" E a distance of 6.00 feet;

Thence S 02° 35' 31" W a distance of 221.14 feet;

Thence S 75° 43' 06" W a distance of 11.20 feet;

Thence S 03° 14' 23" W a distance of 256.04 feet, more or less, to an iron pin which is on the north right-of-way line of Ball Road;

Thence N 85° 44' 18" W along the north right-of-way line of said Ball Road a distance of 6,377.49 feet to a concrete monument stamped "8B", the coordinates of said monument being North 275,721.121 feet and East 800,511.446 feet;

Thence continue N 85° 44' 18" W along the north right-of-way line of said Ball Road a distance of 230.00 feet to a point in the center of Perry Road;

Thence N 04° 11' 17" E along the centerline of said Perry Road a distance of 3,695 feet, more or less, to a point in the center of Dunn Avenue as it existed in 1941;

Thence S 85° 44' 20" E along the centerline of said Dunn Avenue, as it existed in 1941, a distance of 230.00 feet to a concrete monument stamped "9B", the coordinates of said monument being North 279,406.325 feet and East 800,781.294 feet;

Thence continue S 85° 44' 20" E along the centerline of said Dunn Avenue, as it existed in 1941, a distance of 1,092.89 feet to a concrete monument stamped "10B";

Thence continue S 85° 44' 20" E along the centerline of said Dunn Avenue, as it existed in 1941, a distance of 577 feet;

Thence S 02° 11' W a distance of 18.56 feet to the south right-of-way line of said Dunn Avenue as it existed in 1941;

Thence S 85° 44' 18" E along the south right-of-way line of said Dunn Avenue, as it existed in 1941, a distance of 5,093 feet, more or less, to the point of beginning.

Containing 548.40 acres, more or less, and being all of Tracts 1A and 2 and a part of Tract 1 of Defense Depot Memphis, Military Reservation.

## LOCATION AND DESCRIPTION OF CONTAMINATION

A general approximation of the location of the residual contamination in soil and groundwater on the Memphis Depot with respect to surveyed benchmarks for MI land is depicted in Map 1 attached hereto. A summary of the environmental contamination of the property relevant to this Notice follows:

1. Groundwater Contamination – Portions of the groundwater (shallow or fluvial aquifer) underlying the MI is contaminated with volatile organic compounds (VOCs). The contaminants of concern (COCs) include the following VOCs: tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-Dichloroethene (cis-1,2-DCE), carbon tetrachloride, and chloroform. The nature and extent of the contamination is described in the Final MI Remedial Investigation (RI) Report [CH2MHill January 2000] and MI RD [CH2MHill August 2004].

Map 1 (attached hereto) shows three groundwater contamination areas (i.e.,plumes) outlined with a green line. The contour line depicts approximate extent of the plume boundary based upon a concentration of total VOCs greater than or equal to five (5) micrograms per liter (ug/L), which is the most stringent maximum contaminant level (MCL). An MCL is based on the Safe Drinking Water Act (42 U.S.C. 300f *et seq.*) National Revised Primary Drinking Water Regulations at 40 *CFR* Part 141.61. The above MCL was determined by the DLA, EPA and TDEC as the relevant and appropriate cleanup level. These outlined areas of groundwater contamination may be subject to further investigation and active remediation (i.e. in-situ treatment) as part of the CERCLA selected remedy described in the MI ROD and RD.

2. Soil Contamination – The MI has soil contaminated with the chemical dieldrin (a pesticide), and the metals arsenic and lead. Soil contamination is mostly limited to the surface soil horizon (zero to one foot below ground surface). The nature and extent of the contamination is described in MI RI Report. Map 1 (attached hereto) depicts the CERCLA RI soil sampling locations with elevated levels of the three contaminants that exceed the concentrations that would be acceptable for unrestricted use of the site.

It is likely there are additional surface areas on the MI that have soil contaminated with dieldrin, arsenic or lead. Accordingly, it is recommended that soil that is removed from the site (i.e., excavated and disposed in a landfill or used as backfill) be characterized (i.e., sampled and analyzed) to ensure proper management. The CERCLA selected remedy for the contaminated surface soil left in place on the MI is implementation of land use controls to prevent residential land use or other child-occupied facilities, including daycare on the MI.

3. Solid Waste Management Units (SWMUs)/Areas of Concern (AOCs) - There are 57 named SWMUs and or AOCs located within the boundaries of the MI property [See Map 1 attached hereto]. The terms 'SWMU' and 'AOC' are defined by the EPA for purpose of identifying units/areas that are potentially sources of environmental contamination and require further investigation and when necessary, corrective action (i.e., remedial action). The SWMUs/AOCs on the MI have been evaluated as part of the RCRA Facility Investigation performed by EPA and/or the CERCLA response action process under the FFA.

SWMU 42 (Former PCP Dipvat Area) and SWMU 43 (Former Underground PCP Tank Area) had PCP contaminated soil removed to a depth of ten feet, were backfilled with clean soil/crushed stone and then were covered with a concrete pad. As stated above, due to elevated PCP concentrations remaining in the soil ten feet below the surface, these areas have a no-dig restriction. Figure 1 provides the surveyed location of these two areas and outlines the two no-dig areas. Site specific information on these SWMUs can be found in the following two documents: 1) *Results of a Soil Investigation at the Former PCP DipVat and Underground PCP Storage Tank Sites, Main Installation, Memphis Depot (Rev. 1)* [CH2MHill January 2004], and 2) *Summary Report: On-Site Remedial Activities at the Defense Depot Memphis* [O.H. Materials (OHM) February 24, 1986].

In the event disturbance of any other SWMU (except SWMUs 42 or 43) or AOC is planned, it is recommended that any waste materials generated (e.g. demolition material or excavated soil) be characterized (i.e., sampled and analyzed) to ensure proper management, especially if off-site disposal is anticipated.

Point of contact regarding this Notice of Land Use Restrictions is as follows:

U.S. Army Corps of Engineers, Mobile District
Real Estate Division
P.O. Box 2288
Mobile, AL 36628-0001
251-690-2547

**IN WITNESS WHEREOF,** I have hereunto set my hand by the authority of the Secretary of the Army and have executed this Notice of Land Use Restrictions this 21st day of January, 2005.

**UNITED STATES OF AMERICA**

By: Willie L. Patterson
WILLIE L. PATTERSON
Chief, Real Estate Division
U.S. Army Engineer District, Mobile

STATE OF ALABAMA
COUNTY OF MOBILE

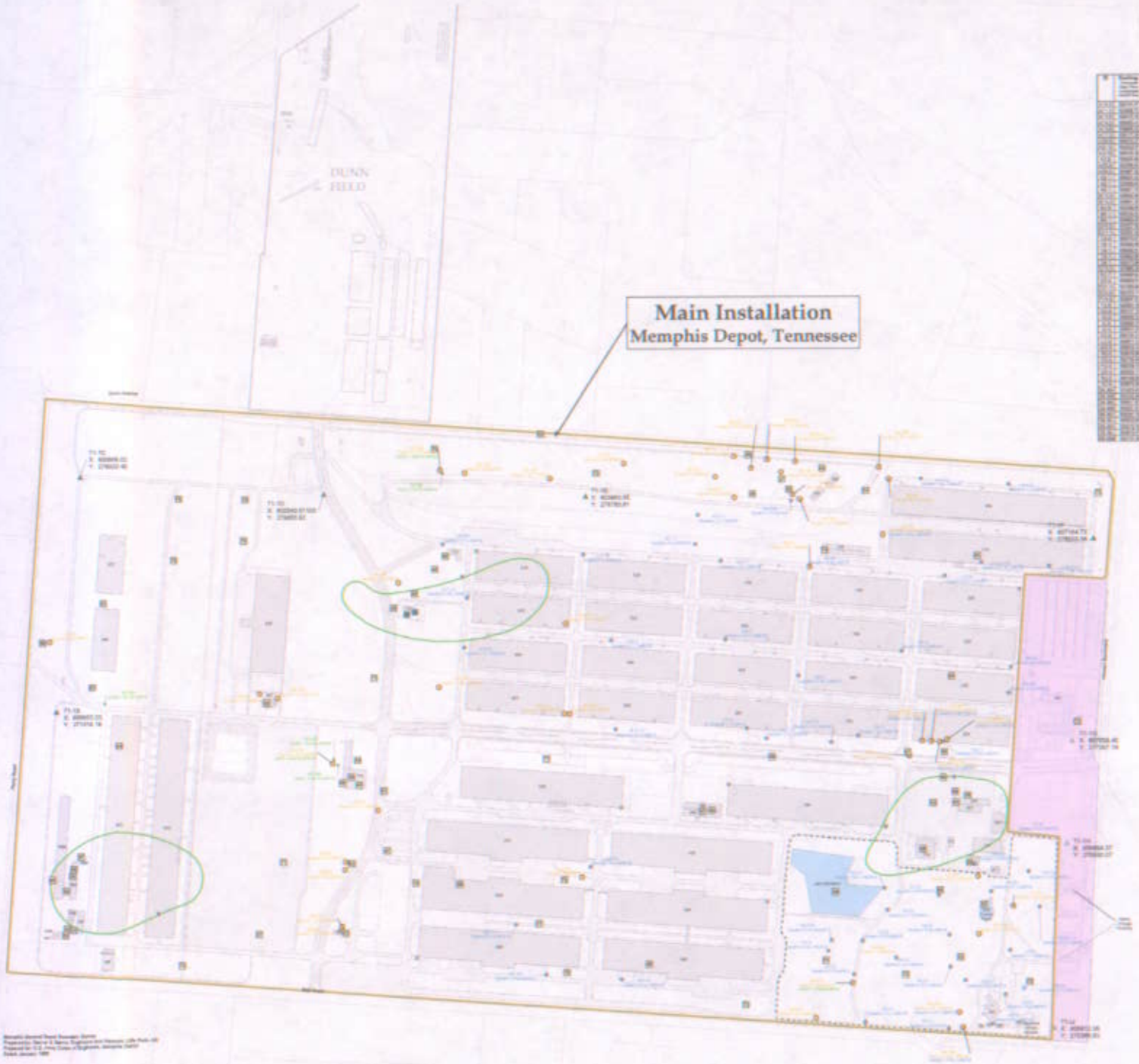
Signed, sealed and delivered
In the presence of:

Witness

NOTARY PUBLIC
State-at-Large

My Commission Expires: [illegible]

(SEAL)




Coordinates of
Soil Contamination Sampling Points

| ID | Easting (Feet) | Northing (Feet) | Latitude (Degrees) | Longitude (Degrees) | Latitude (Decimal Degrees) | Longitude (Decimal Degrees) |
|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

| ID | Easting (Feet) | Northing (Feet) | Latitude (Degrees) | Longitude (Degrees) | Latitude (Decimal Degrees) | Longitude (Decimal Degrees) |
|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

List of Solid Waste Management Units and Areas of Concern

| SWMU/AOC No. | Description | Groundwater Contamination Estimated Extent | Groundwater Contamination Estimated Extent | Soil Contamination | Soil Contamination | Land Use Restrictions | Land Use Restrictions |
|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

* [illegible]

SCALE IS APPROXIMATE

**Legend**

- Asphalt
- Buildings
- Building Number
- Transferred Area, available for unrestricted use
- Building Corner (Surveyed)
- Benchmarks (Surveyed by Garner & Garner 1991)
- SWMU/AOC No.
- Restricted Land Use Area Boundary
- Golf Course Boundary Fence (maintained to preclude access by off-site pedestrians)

**Groundwater Contamination**

- Estimated Extent of Contaminated Groundwater Plume(s) with Total Volatile Organic Compounds (VOCs) Concentrations at or Above the Primary Drinking Water Standard Maximum Contaminant Level (MCL) of 5 ug/L

**Soil Contamination**

| Arsenic Concentrations | Dieldrin Concentrations | Lead Concentrations |
|---|---|---|
| ≥ >20 mg/kg | ≥ >0.21 mg/kg | ≥ >300 mg/kg |

**Land Use Restrictions**

- No Residential Development or Child Daycare Uses
- No production/consumptive use of groundwater on drilling of groundwater wells
- * A no-dig restriction for material 10 feet below land surface due to elevated pentachlorophenol (PCP) soil concentrations

**MAP 1**

Areas of Restricted Land Use and Residual Contamination on the Main Installation

Rev. 0, January 14, 2005

Memphis Depot, Tennessee

CH2MHILL

821 10

# FINAL PAGE

## ADMINISTRATIVE RECORD

FINAL PAGE