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SOURCE AREAS

INTERIM REMEDIAL ACTION COMPLETION REPORT

Dunn Field - Defense Depot Memphis, Tennessee



Defense Logistics Agency



**Air Force Center For Engineering And The
Environment
Contract No. FA8903-04-D-8722
Task Order No. 0043**

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Prepared for:

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LIST OF ACRONYMS AND ABBREVIATIONS

acfm	actual cubic feet per minute
AFCEE	Air Force Center for Engineering and the Environment
AOC	Area of Concern
AQC	Air Quality Control
AS-SVE	air sparging with soil vapor extraction
AWS	air/water separator
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
CF	chloroform
COC	constituents of concern
CT	carbon tetrachloride
CVOC	chlorinated volatile organic compound
CWM	Chemical Warfare Material
CY	cubic yards
cDCE	cis-1,2-dichloroethene
tDCE	trans-1,2-dichloroethene
DCA	1,2-dichloroethane
DCE	1,1-dichloroethene
1,2-DCE	1,2-dichloroethene
deg C	degrees centigrade
DDMT	Defense Depot Memphis, Tennessee
DLA	Defense Logistics Agency
DO	dissolved oxygen
DoD	Department of Defense
DQE	data quality evaluation
DQO	data quality objective
ECBC	Edgewood Chemical Biological Center
EE/CA	engineering evaluation and cost analysis
e ² M	engineering-environmental Management, Inc

LIST OF ACRONYMS AND ABBREVIATIONS

(CONTINUED)

EISR	Early Implementation of Selected Remedy
EPA	Environmental Protection Agency
ET&D	excavation, transportation and disposal
FFA	Federal Facilities Agreement
FSVE	Fluvial Soil Vapor Extraction
GAC	granular activated carbon
gpm	gallon per minute
HASP	Site Specific Health and Safety Plan
hp	horsepower
HRS	Hazard Ranking System
HSP	Health and Safety Plan
HSWA	Hazardous and Solid Waste Amendment
IDW	Investigation Derived Waste
in. Hg	inches of mercury
IRA	Interim Remedial Action
IRACR	Interim Remedial Action Completion Report
ISTD	in-situ thermal desorption
lb/hr	pounds per hour
LSB	loess soil boring
LTM	Long-Term Monitoring
LUC	Land Use Controls
LUCIP	Land Use Control Implementation Plan
MCL	Maximum Contaminant Level
MFD	Memphis Fire Department
µg/L	micrograms per liter
mg/kg	milligram per kilogram
MI	Main Installation
MIP	membrane interface probe
MLGW	Memphis Light Gas & Water
MNA	monitoring natural attenuation
MSCHD	Memphis Shelby County Health Department

LIST OF ACRONYMS AND ABBREVIATIONS

(CONTINUED)

MW	monitoring well
NPL	National Priorities List
NTU	nephelometric turbidity units
O&M	Operations and Maintenance
OPS	Operating Properly and Successfully
ORP	oxygen reduction potential
OU _s	operable units
PAH	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PID	photoionization detector
PLC	programmable logic controller
PMP	pressure monitoring point
POL	petroleum/oil/lubricants
POTW	publicly owned treatment works
PPE	personal protective equipment
ppm	parts per million
PRB	permeable reactive barrier
PRGs	Preliminary Remediation Goals
PVC	polyvinyl chloride
PW	present worth
QC	Quality Control
RA	Remedial Action
RA-C	Remedial Action Construction
RAO	Remedial Action Objectives
RA SAP	Remedial Action Sampling and Analysis Plan
RAWP	Remedial Action Work Plan
RCI	reactivity, corrosivity, and ignitability
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RDI	Remedial Design Investigation

LIST OF ACRONYMS AND ABBREVIATIONS

(CONTINUED)

RG	Remediation Goal
RGO	remedial goal objective
RI	Remedial Investigation
RL	Reporting Limit
ROD	Record of Decision
ROI	radius of influence
RW	recovery well
scfm	standard cubic feet per minute
SOP	standard operating procedure
SVE	Soil Vapor Extraction
SVOC	semi-volatile organic compound
SWMU	Solid Waste Management Unit
TA	treatment area
TCA	1,1,2 trichloroethane
TCE	trichloroethene
TCL/TAL	Target Compound List and Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
TDEC	Tennessee Department of Environment and Conservation
TeCA	1,1,2,2 tetrachloroethane
TM	Technical Memorandum
TMP	temperature monitoring point
TOC	total organic carbon
TSVE	Thermal-enhanced soil vapor extraction
UPS	universal power supply
USEPA	United States Environmental Protection Agency
USES	United States Environmental Services
UXO	unexploded ordnance
VEW	vapor extraction well
VMP	vapor monitoring point
VOC	volatile organic compound
WMI	Waste Management Inc
ZVI	zero valent iron

1.0 INTRODUCTION

HDR|engineering-environmental Management, Inc. (HDR|e²M) has prepared this Interim Remedial Action Completion Report (IRACR) to describe the Source Areas Remedial Action (RA) on Dunn Field at Defense Depot Memphis, Tennessee (DDMT). The RA was performed for the Defense Logistics Agency (DLA) under Air Force Center for Engineering and the Environment (AFCEE) contract number FA8903-04-D-8722, Task Orders 31 and 43. This IRACR has been prepared under Task Order 43.

The RA included a soil vapor extraction (SVE) system in the coarse-grained fluvial soils; a thermal-enhanced soil vapor extraction (TSVE) system using in situ thermal desorption (ISTD) in the fine-grained loess; and excavation, transportation and disposal of contaminated soil and debris in two shallow areas. Injection of zero valent iron (ZVI) in the shallow aquifer was planned but was not required due to the success of the other RA components. This IRACR has been prepared in accordance with guidance in *Close Out Procedures for National Priorities List (NPL) Sites* (U.S. Environmental Protection Agency [USEPA], 2000).

1.1 SITE LOCATION AND DESCRIPTION

DDMT is located in southeastern Memphis, Tennessee (Figure 1). DDMT originated as a military facility in the early 1940s to provide stock control, material storage, and maintenance services for the U.S. Army. DDMT is located approximately five miles east of the Mississippi River, and just northeast of Interstate 240. The property consists of approximately 642 acres and includes two components: the Main Installation (MI), which includes open storage areas, warehouses, military family housing, and outdoor recreational areas; and Dunn Field, which includes former mineral storage and waste disposal areas. In 1995, DDMT was placed on the list of Department of Defense (DoD) facilities to be closed under Base Realignment and Closure (BRAC). Storage and distribution activities continued until DDMT closed in September 1997.

1.2 REGULATORY STATUS

On 28 September 1990, USEPA Region 4 and Tennessee Department of Environment and Conservation (TDEC) issued the Depot a Resource Conservation and Recovery Act (RCRA) Part B permit for the storage of hazardous waste (No. TN 4210020570). The Hazardous and Solid Waste Amendment (HSWA) portion of the permit issued by USEPA included requirements for the identification and, if necessary, corrective action of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs). A RCRA Facility Assessment completed in 1990 identified 49 SWMUs and 8 AOCs.

Subsequent to issuing the RCRA permit, and in accordance with Section 120(d)(2) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Title 42, Section 9620(d)(2), of the United States Code, 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 a Federal Facilities Agreement (FFA) (USEPA, 1995a) 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 2005, TDEC denied renewal of the Depot's Hazardous Waste Corrective Action Permit terminating requirements to continue corrective action under the hazardous waste regulations, as all correction action activities were being performed under CERCLA authority.

DDMT is divided into four Operable Units (OUs): Dunn Field, OU 1; Southwest Quadrant MI, OU 2; Southeastern Watershed and Golf Course, OU 3; and North-Central Area MI, OU 4. The *Final Main Installation Record of Decision (ROD)* (CH2M HILL, 2001) includes OUs 2, 3, and 4. The *Dunn Field, Final ROD* (CH2M HILL, 2004b) addresses OU 1, the only known and documented waste burial area. Disposal records and interviews with facility personnel identified specific instances when some waste burials occurred on Dunn Field, with the earliest record of burial in 1946.

1.3 GEOLOGY AND HYDROGEOLOGY

The geologic units of interest at Dunn Field are (from youngest to oldest): loess, including surface soil; fluvial deposits; Jackson Formation/Upper Claiborne Group; and Memphis Sand.

The loess consists of wind-blown and deposited, brown to reddish-brown, low plasticity clayey silt to silty clay. The loess deposits are about 20 to 30 feet thick and are continuous throughout the Dunn Field area.

The fluvial (terrace) deposits consist of two general layers. The upper layer is a silty, sandy clay that transitions to a clayey sand and ranges from about 10 to 36 feet thick. The lower layer is composed of interlayered sand, sandy gravel, and gravelly sand, and has an average thickness of approximately 40 feet. The uppermost aquifer is the unconfined fluvial aquifer, consisting of saturated sands and gravelly sands

in the lower portion of the deposits. The saturated thickness of the fluvial aquifer ranges from 3 to 50 feet and is controlled by the configuration of the uppermost clay in the Jackson Formation/Upper Claiborne Group. The groundwater in the fluvial aquifer is not a drinking water source for area residents.

The Jackson Formation/Upper Claiborne Group consists of clays, silts, and sands. The uppermost clay unit appears to be continuous, except in the southwestern area of Dunn Field. Off site, to the west and northwest of Dunn Field, there are possible gaps in the clay. Where present, these gaps create connections to the underlying intermediate aquifer from the fluvial deposits. The intermediate aquifer is locally developed in deposits of the Jackson Formation/Upper Claiborne Group.

The Memphis Sand primarily consists 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 the total thickness. The Memphis Sand ranges from 500 to 890 feet in thickness, and begins at a depth below ground surface (bgs) of approximately 120 to 300 feet. The Memphis aquifer is confined by overlying clays and silts in the Cook Mountain Formation (part of the Jackson/Upper Claiborne Group) and contains groundwater under strong artesian (confined) conditions regionally. The City of Memphis obtains the majority of its drinking water from this unit. The Allen Well Field, which is operated by Memphis Light Gas & Water (MLGW), is located approximately two miles west of Dunn Field.

1.4 SITE INVESTIGATION ACTIVITIES

Historical information concerning disposal sites at Dunn Field is included in the *Dunn Field Remedial Investigation (RI) Report* (CH2M HILL, 2002) and *Dunn Field Feasibility Study Report* (CH2M HILL, 2003a). Records indicate that chemical warfare material (CWM), chlorinated lime, super tropical bleach, and calcium hypochlorite, food stocks, paints/thinners, petroleum/oil/lubricants (POL), acids, herbicides, mixed chemicals, and medical waste were reportedly destroyed or buried in pits and trenches at the Dunn Field disposal sites.

Dunn Field was divided into three geographic areas to facilitate the RI (Figure 2).

- Northeast Open Area – Approximately 20 acres of land located in the northeast quadrant of Dunn Field. This area is mostly grass covered with some lightly wooded areas.
- Disposal Area – Approximately 14 acres of open land located in the northwest quadrant of Dunn Field, where the majority of disposal sites are located.

- Stockpile Area - Approximately 30 acres of open land located in the southern half of Dunn Field. This area includes former bauxite and fluorspar stockpiles (removed in 1999) and burial areas in the eastern and southwestern portions of Dunn Field.

1.4.1 Subsurface Soil Contamination

Subsurface soil samples collected in 1999 for the RI showed significant levels of chlorinated volatile organic compounds (CVOCs): 1,1,2,2 tetrachloroethane (TeCA); 1,2-dichloroethane (DCA); total 1,2-dichloroethene (1,2-DCE); carbon tetrachloride (CT); chloroform (CF); methylene chloride; tetrachloroethene (PCE); trichloroethene (TCE); and vinyl chloride. The highest concentrations detected in 1999 were from boring SBLEE in the northwest corner of Dunn Field: TCE at 460 milligrams per kilogram (mg/kg); TeCA at 160 mg/kg; and 1,2-DCE at 190 mg/kg. These samples were collected within the loess at depths of 30 feet, bgs or less.

Further soil sampling was conducted October 2000 to February 2001 to delineate potential source areas. Sixteen soil borings were drilled in the Disposal Area and west of Dunn Field to the top of the clay below the water table, approximately 80 to 95 feet bgs, and soil samples were collected from the loess and fluvial deposits. TCE and TeCA were the CVOCs most frequently detected in soil samples at concentrations above the remedial goals (RGs). The highest concentrations were detected in the fluvial deposits (TeCA at 22.6 mg/kg in boring SBLCA-SB2 at a depth of 44 feet, and TCE at 0.888 mg/kg in boring SBLCA-SB11 at a depth of 81 feet). The only CVOC detected above RGs in the loess (at a depth of 30 feet or less) was vinyl chloride at 0.055 mg/kg in boring SBLEE-SB1 near MW-10 in Treatment Area (TA) 1.

A passive soil gas survey was conducted at Dunn Field to provide screening information on the potential sources of volatile organic compound (VOC) contamination in groundwater at Dunn Field. Phase 1 in August 1998 focused on the Disposal Area, and Phase 2 in October 1998 expanded the soil gas sampling grid to the east and north to further delineate soil gas anomalies identified in Phase 1. The investigation findings are provided in the RI. A soil gas investigation was also conducted by Parsons Engineering Science, Inc. (Parsons) in October 2000. Parsons collected soil gas samples using a SimulProbe™. This work was reported in the *Remedial Process Optimization Phase II Evaluation Report, Defense Depot Memphis, Tennessee* (Parsons, 2001).

An investigation for the disposal sites remedial design (RD) was conducted to supplement existing chemical and physical data on the 17 former disposal sites on Dunn Field previously identified by the BRAC Cleanup Team (BCT) as Priority Level A and Level B based upon the quantity of material within

each site, potential hazards of the material, and form of the material (solid versus liquid). A geophysical survey was used to estimate the location and depths of the disposal sites. Trenches or test pits were excavated across the length of each site to collect soil samples and make visual observations of the buried materials. A total of 48 trenches and seven test pits were excavated to depths of ten feet or less. Excavation locations were based on available historical information and the geophysical survey data. While soil samples from the excavations were analyzed for VOCs, the results were not used to determine excavation limits since SVE was the selected remedy for VOCs in subsurface soils. The highest VOC concentrations were detected in a sample from Disposal Site 10 in the northwest corner of Dunn Field, TeCA at 2,850 mg/kg, TCE at 671 mg/kg, and PCE at 35.7 mg/kg. Investigation results were presented in the *Disposal Sites Pre-Design Investigation Data Collection Plan Technical Memorandum (TM) Revision 2* (CH2M HILL, 2004a).

1.4.2 Groundwater Contamination

The nature and extent of contamination in groundwater underlying Dunn Field were assessed in the RI based on chemical analyses of groundwater samples collected since January 1996. Groundwater samples have been analyzed for explosives, herbicides, metals (total), pesticides, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and CVOCs. Groundwater samples were also analyzed for CWM breakdown products, including thiodiglycol, 1,4-oxathiane, 1,4-dithiane, and various geochemical and geotechnical parameters. Based on these analyses, VOCs, dieldrin, arsenic, iron, and manganese were identified as constituents of concern (COCs) in groundwater. However in additional groundwater samples collected prior to the ROD, the metals and dieldrin were not detected at significant levels or did not have a high frequency of detection. Based on the analytical data and the low solubility of the metals and dieldrin, only CVOCs were selected as COCs in groundwater.

The Dunn Field ROD identified three primary contaminant plumes in the fluvial aquifer underlying Dunn Field. Mixing and intermingling of the plumes have occurred due to the active groundwater extraction system and natural groundwater flow. The nine CVOCs listed below have been detected most frequently in past groundwater sampling events:

- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- cis-1,2-Dichloroethene (cDCE)
- trans-1,2-Dichloroethene (tDCE)
- 1,1-Dichloroethene (DCE)
- 1,1,2,2-Tetrachloroethane (TeCA)
- 1,1,2-Trichloroethane (TCA)
- Carbon tetrachloride (CT)
- Chloroform (CF)

The highest groundwater contaminant concentrations have been detected in the central plume. The individual VOCs with the highest concentrations are TeCA and TCE, with maximum concentrations up to 40,800 micrograms per liter ($\mu\text{g/L}$) for TeCA and 7,110 $\mu\text{g/L}$ for TCE (monitoring well [MW]-73; 22 October 2003).

1.5 PRIOR REMOVAL AND REMEDIAL ACTIVITIES

1.5.1 Interim Groundwater Remedial Action

1.5.1.1 System Construction

The Interim Remedial Action (IRA) ROD for groundwater at Dunn Field was signed in April 1996 with the objective of hydraulic containment to: (1) prevent further contaminant plume migration; and (2) reduce contaminant mass in groundwater. The final design for Phase I of the groundwater extraction system was completed in August 1997 and included the installation of seven groundwater extraction wells (recovery well [RW]-3 through RW-9), one pre-cast concrete building, an underground conveyance system, and flow measurement and control systems. The system was constructed from January 1998 through October 1998 and began operation in November 1998.

The Phase II design was completed in January 2000 and included four additional extraction wells and associated electrical, mechanical, and instrumentation/controls components. The Phase II system update was developed due to the detection of additional groundwater contamination in the southern portion of Dunn Field. Installation of new RWs (RW-1, RW-1A, RW-1B and RW-2) south of RW RW-03 and construction of other components was completed by March 2001. The expanded system was in full operation in June 2001.

The groundwater is discharged to the city sewer system without treatment under Industrial Wastewater Discharge Agreement Permit # S-NN3-092 with the City of Memphis.

1.5.1.2 Five Year Reviews

The *Five Year Review for Dunn Field* (CH2M HILL, 2003b) concluded that over 300 pounds of VOCs had been removed by the IRA from 1998 to 2002. However, the extraction system did not adequately control groundwater flow and plume migration in the fluvial aquifer. Potentiometric surface maps indicated that groundwater was captured in the immediate vicinity of each RW, but the capture zones were not connected between wells, and portions of the groundwater plume were able to pass through the voids in the extraction well capture zones. An increase in CVOC concentrations was observed in MWs west of Dunn Field.

The IRA was found to be protective in the short term, because there is no current or planned use of the fluvial aquifer as a drinking water supply and local ordinances restrict installation of private wells. The Five Year Review stated that monitoring data from the IRA and the RI suggested that aquifer restoration could be accomplished effectively by other technologies rather than expanding the groundwater extraction system. Fully protective remedies for all media were selected in the *Dunn Field ROD* (CH2M HILL, 2004b). The *Second Five Year Review* (HDR|e²M, 2008) completed in January 2008 did not alter the findings relative to the protectiveness of the IRA.

1.5.1.3 System Monitoring

Groundwater samples have been collected regularly since 1999 to evaluate system effectiveness in restricting plume migration. Samples were collected quarterly in 1999 and 2000 and have been collected semiannually since 2002; limited sampling was performed in 2001. Sample analyses have generally been limited to VOCs. Groundwater samples from MWs were collected using both passive diffusion bags and low-flow sampling methods.

The *Annual Operations Report – 2008, Dunn Field Groundwater Interim RA – Year Ten* (HDR|e²M, March 2009a) describes the system operations and maintenance activities for 2008 and presents the semiannual groundwater monitoring results. The report includes historical groundwater results for the nine primary CVOCs detected in groundwater for all wells in the monitoring program. The latest groundwater elevation contour map is shown on Figure 3 and the total CVOC concentration contours for October 2008 samples are shown on Figure 4.

Effluent samples from the IRA discharge are collected quarterly to monitor contaminant mass reduction. As of 31 December 2008, the IRA system had discharged 312,015,593 gallons of groundwater to the sewer system and had removed approximately 918 pounds of total VOCs, including 369 pounds of TCE. The VOC concentrations in the system effluent have decreased significantly since the fluvial soil vapor extraction (FSVE) component of the Source Areas RA began operations in July 2007. The trend plot for total VOCs and TCE concentrations in the effluent are shown on Figure 5.

1.5.1.4 Current Status

All RWs are currently offline. Groundwater sample results from the April 2008 IRA semiannual monitoring event demonstrated that the Source Areas RA was having a significant impact in reducing CVOC concentrations in groundwater. CVOC concentrations in RWs and MWs at the north end of Dunn Field did not exceed 50 µg/L for any single CVOC. Operation of RW-5 through RW-9 was discontinued on 9 June 2008. CVOC concentrations in groundwater samples from the October 2008 semiannual

monitoring event decreased or remained at low levels and the on-line RWs (RW-1, RW-1A, RW-1B, RW-2, RW-3, and RW-4) were shutdown on 23 January 2009.

1.5.2 Chemical Warfare Materiel Removal Action

Following completion of an engineering evaluation and cost analysis (EE/CA), a non-time critical removal action was conducted to reduce or eliminate the potential risk posed by CWM wastes at Sites 1, 24-A, and 24-B. The removal action was completed in March 2001 and documented in the *Final Chemical Warfare Materiel Investigation/Removal Action Report* (UXB, 2001). Approximately 914 cubic yards (CY) of soil contaminated with mustard degradation by-products, and 19 CY of mustard-contaminated soil were excavated, transported, and disposed offsite. Twenty-nine bomb casings were recovered from Site 24-A.

1.5.3 Soil Removal Action at Site 60, Former Pistol Range

A non-time critical removal action to address lead contaminated surface soil at Site 60, a former pistol range in the Northeast Open Area, was completed in March 2003, pursuant to an EE/CA completed in July 2002. Approximately 930 CY of lead contaminated surface soil was excavated, transported, and disposed offsite at an approved, permitted landfill.

2.0 DUNN FIELD BACKGROUND

The *Memphis Depot Dunn Field ROD* (CH2M HILL, 2004b) was finalized in April 2004. The eastern portion of Dunn Field, including most of the Northeast Open Area and the Stockpile Area with approximately 41 of the total 64 acres, was designated available for unrestricted use (Figure 2). The selected remedy in the ROD addresses surface soil, material within disposal sites and associated soil, and CVOCs in subsurface soil and groundwater.

Based on additional information developed after approval of the Dunn Field ROD, components of the selected remedy were revised as described in the *Dunn Field ROD Amendment* (ROD Amendment) (HDR|e²M, 2009b). The ROD Amendment was finalized in March 2009.

2.1 DUNN FIELD ROD REQUIREMENTS

Remedial action objectives (RAOs) are medium-specific goals that the RAs are expected to accomplish to protect human health and the environment. The RAOs were developed to reflect the anticipated future land use for Dunn Field in accordance with Environmental Protection Agency (EPA) Policy (Office of Solid Waste and Emergency Response Directive No. 9355.7-04), *Land Use in the CERCLA Remedy Selection Process* (USEPA, 1995c). The development of the RAOs took into consideration the remedial goal objectives (RGOs) (permissible exposures to industrial workers and potential on-site residents assuming redevelopment of Dunn Field) and the clean up concentrations based upon the RGOs. The RGOs for the contaminants of concern in subsurface soils and groundwater at Dunn Field are listed in Table 1.

The following RAOs are from the ROD:

Surface Soil

- Limit use of the surface soil in the Disposal Area to activities consistent with light industrial land use and prevent residential use through land controls

Disposal Sites

- Prevent groundwater impacts from a release of buried containerized hazardous liquids and the leaching of contaminants from buried hazardous solids
- Prevent unacceptable risk of direct contact with buried hazardous liquids and/or solids due to intrusive activities during future land use or site development

Subsurface Soil Impacted with VOCs

- Prevent direct inhalation of indoor air vapors from subsurface soils in excess of industrial worker criteria
- Reduce or eliminate further impacts to the shallow fluvial aquifer from VOCs in the subsurface soil

Groundwater

- Prevent human exposure to contaminated groundwater (i.e., exceeding protective target concentrations)
- Prevent further off-site migration of VOCs in excess of protective target levels
- Remediate fluvial aquifer groundwater to drinking water quality to be protective of the deeper Memphis aquifer

The major components of the selected remedy from the Dunn Field ROD are:

- Excavation, transportation, and disposal (ET&D) of soil and material contained within disposal sites based upon results from a pre-design investigation
- SVE to reduce VOC concentrations in subsurface soils to levels that are protective of the intended land use and groundwater
- Injection of ZVI within Dunn Field to treat 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 monitoring (LTM) of groundwater to document changes in plume concentrations, detect potential plume migration to off-site areas or into deeper aquifers, and track progress toward RGs.
- Implementation of land use controls (LUCs), which consist of the following institutional controls: Deed and/or lease restrictions; Notice of Land Use Restrictions; City of Memphis/Shelby County zoning restrictions and the Memphis and Shelby County Health Department (MSCHD) groundwater well restrictions.

Three RAs were planned to implement the selected remedies for OU 1, Dunn Field:

- Disposal Sites RA to address ET&D;

- Source Areas RA to address SVE in subsurface soils, ZVI injections at Dunn Field, and implementation of LUCs; and
- Off-Depot Groundwater RA to address installation of a PRB, MNA, and LTM.

2.2 POST-ROD REMEDIAL ACTIONS

2.2.1 Disposal Sites Remedial Action

In accordance with the *Disposal Sites RD* (CH2M HILL, 2004d), *Dunn Field Disposal Sites Remedial Action Work Plan (RAWP)* (MACTEC, 2004a), and *Dunn Field Disposal Sites RAWP Addendum 1* (MACTEC, 2006a), soil and debris including potential principal threat wastes (primarily drums and glass bottles) from Disposal Sites 3, 4.1, 10, 13, and 31 were excavated and transported for offsite disposal. Five disposal sites were determined to require RA based on the results of the Pre-Design Investigation.

- Disposal Site 3 – Mixed chemical burial site (ortho-toluidine dihydrochloride)
- Disposal Site 4.1 – POL Burial Site (32 55-gallon drums of oil, grease, and paint)
- Disposal Site 10 – Solid Waste Burial Site (metal, glass, and trash)
- Disposal Site 13 – Mixed Chemical Burial (900 pounds of unnamed acid, and 8,100 pounds of unnamed solids)
- Disposal Site 31 – covered by the bauxite storage pile (Site 64), used for burning/disposal of smoke pots, tear gas grenades, and souvenir ordnance

The Disposal Sites RA was performed during two separate mobilizations. During the first mobilization from 14 March 2005 through 7 May 2005, Disposal Sites 4.1, 13, 31, and the majority of Disposal Site 10 were completed. An area of burn pit material that extended to the west of Disposal Site 10, and the presence of intact, unlabeled glass bottles encountered in Disposal Site 3 required additional remedial measures beyond the initial scope of work. The glass bottles contained a clear liquid that required further analysis to determine proper handling and disposal procedures; the liquid was identified as ortho-toluidine. Disposal Site 3 and the remaining materials from Disposal Site 10 were completed during the second mobilization from 27 February through 8 March 2006. A total of 4,051 tons (approximately 2,700 CY) of non-hazardous materials from Disposal Sites 3, 4.1, 10, 13, and 31 were transported off-site and disposed of at the BFI South Shelby County Landfill. A total of 351 tons (approximately 234 CY) of hazardous materials from Disposal Site 3 was disposed at the Clean Harbors Lambton Secure Landfill in Canada. The RAOs outlined in the ROD for these sites were achieved based on the confirmation sample

results for each excavation. The *Dunn Field Disposal Site RA Completion Report* (MACTEC, 2006b) was approved by EPA on 25 August 2006.

2.2.2 Early Implementation of Selected Remedy

DLA determined that an Early Implementation of Selected Remedy (EISR) using the ZVI process should be taken at the leading edge of the high-concentration portion of the central plume in the fluvial aquifer. The EISR was a response to levels of contamination not observed at this distance from Dunn Field during the RI. The rationale and scope for this action were described in a TM, *EISR Component to Address Groundwater Contamination West of Dunn Field* (CH2M HILL, 2004c), which was approved by the BCT on 21 October 2004. The overall objective of the EISR was to reduce contaminant mass downgradient of the planned PRB location in order to ensure that the portion of the plume slated for MNA in the ROD was not unduly extensive or high in concentration.

ZVI injections were made following procedures in the *EISR Work Plan* (MACTEC, 2004b) from 18 November 2004 through 8 January 2005. Injections were made in 14 borings at 2-foot intervals over the fluvial aquifer thickness, which averaged 21 feet; the injection locations were spaced approximately 60 to 80 feet apart. The depth of injection ranged from approximately 70 to 100 feet bgs. The total mass of ZVI injected was approximately 192,500 pounds.

The EISR is described in the *EISR Interim Remedial Action Completion Report* (MACTEC, 2005a). The injections did not achieve the goal of 90 percent or greater reduction of TCE and TeCA. The report included recommendations for decreased spacing between injection locations to achieve increased reduction in CVOCs. The report was approved by EPA on 22 September 2005.

2.3 ROD AMENDMENT

Information gathered since completion of the Dunn Field ROD in 2004 resulted in a reassessment of components of the selected remedy.

Three studies were performed on Dunn Field as part of the Source Areas RD (CH2M HILL, 2007). A field treatability study was conducted to evaluate the effectiveness of ZVI injection for subsurface remediation of CVOCs; a SVE pilot study was performed to collect site-specific data for both the loess and the unsaturated fluvial deposits; and a remedial design investigation (RDI) was performed to delineate CVOC concentrations in the loess and to collect additional groundwater samples.

Additional studies were performed in the groundwater plume west of Dunn Field to aid the Off Depot RD (CH2M HILL, 2008). A ZVI PRB Implementation Study was performed west of Dunn Field to evaluate implementability and cost-effectiveness for a full-scale PRB. Groundwater flow modeling was performed to provide a quantitative description of hydrogeologic conceptual site model and allow evaluation of the effects of different treatment scenarios. A microcosm study was performed to evaluate TeCA and TCE degradation rates using three carbon substrates, site sediments, and groundwater, and a commercially-available microbial consortia to evaluate whether target compounds could be biodegraded efficiently.

Monitoring of the FSVE system operations demonstrated significant CVOC mass removal from the fluvial sands and semiannual groundwater monitoring for the IRA groundwater removal system has demonstrated reduction in groundwater CVOC concentrations (HDR|e²M, 2009a).

These studies and monitoring results led to seven changes to components of the selected remedy.

One change was fundamental and resulted in the ROD Amendment:

- use of air sparging with soil vapor extraction (AS-SVE) for the Off Depot groundwater plume instead of a permeable reactive barrier.

Five changes were significant:

- revision to criteria for extent of the AS-SVE system and clarification of the treatment objective for AS-SVE;
- reduction in the areal extent of SVE treatment in subsurface soils on Dunn Field;
- use of TSVE in the shallow subsurface soils (loess) on Dunn Field instead of conventional SVE.
- reduction in the areal extent of ZVI injections in groundwater on Dunn Field based on potential source areas with groundwater total CVOC concentrations above 1,000 µg/L; and
- use of ET&D in two areas with shallow impacts (a small area of VOC-impacted subsurface soils and an area of buried crushed drums not previously identified).

The final change was minor:

- re-order sequence of RA components so that ZVI injections in groundwater on Dunn Field will occur after implementation of the subsurface soil remedies.

Since a fundamental change in the remedy selected in the Dunn Field ROD was proposed, a ROD Amendment was prepared to comply with National Oil and Hazardous Substances Pollution Contingency Plan Section 300.435(c)(2)(ii) and CERCLA Section 117. The *Dunn Field Revised Proposed Plan, Rev. 3*

was approved by the BCT and the public comment period was held 27 October to 25 November 2008. No public comments were received. The ROD Amendment was approved by the BCT in January 2009 and was signed by designated representatives of DLA, TDEC and EPA in February and March 2009.

2.4 REMEDIAL DESIGN AND REMEDIAL ACTION WORK PLANS

2.4.1 Remedial Design

The *Memphis Depot Dunn Field Source Areas Final RD* (Dunn Field RD) (CH2M HILL, 2007) was approved by EPA on 20 March 2007 and by TDEC on 23 March 2007.

As discussed in Section 2.3, additional studies were performed to aid the design of the subsurface soil and groundwater remedies: a field treatability study of ZVI injection in the fluvial aquifer; a phased SVE pilot study in the loess and the unsaturated fluvial sands; and the RDI to delineate CVOC concentrations in the loess and to collect additional groundwater samples. The studies were used to modify the RA components as described below.

The RDI resulted in better delineation of the loess deposits requiring SVE treatment. The total area within the four TAs was reduced from 5.5 acres, as shown in the Dunn Field ROD, to 1.25 acres. The loess TAs are shown in Figure 6.

The time to achieve cleanup goals using conventional SVE in the loess was estimated using data collected during the RI and subsequent investigations, and the SVE pilot study. The estimated treatment times for the loess were up to 235 years for TeCA and up to 14 years for TCE. Since conventional SVE was not considered likely to achieve the RGs for the loess in a reasonable period (5 years) and the RDI demonstrated that the area of subsurface soil exceeding RGs was approximately 1.25 acres, TSVE was selected for use in the loess with conventional SVE applied to the unsaturated portion of the fluvial deposits.

Two areas of shallow soil contamination were identified for ET&D: one area with CVOCs above RGs (TA-1F) was identified during the RDI; and a second area with crushed, buried drums in TA-3 was identified during installation of the FSVE system. The two areas are shown on Figure 6.

Based on review of groundwater monitoring data and results of both the ZVI field study and the EISR, the 1000 µg/L total CVOC contour was selected as the boundary of the ZVI injection areas. That concentration was determined to be indicative of source area concentrations that could be effectively treated by closely spaced ZVI injections. The total CVOC concentration contours at the time the RD was

developed and the estimated injection areas are shown on Figure 7. The portion of the CVOC plume outside the ZVI injection area will either naturally attenuate or be treated by the Off-Depot groundwater remedy. Contingency groundwater remedies will be implemented in the event that groundwater outside the expected Off-Depot groundwater remedy treatment zone has individual CVOC concentrations greater than 50 µg/L.

The ZVI injections were to be implemented after installation and start-up of the FSVE system and after completion of TSVE in the loess. This change in sequencing was made to minimize rebounding of CVOC concentrations in groundwater after injection due to leaching from the overlying source areas.

The Dunn Field Land Use Controls Implementation Plan (LUCIP) was to be included in the Dunn Field RD but it had not been approved at that time and was omitted. The approved LUCIP was included in the *Memphis Depot Dunn Field Off Depot Groundwater Final RD* (Off Depot RD) (CH2M HILL, 2008).

2.4.2 CVOC Concentrations and Mass Estimates

As part of the RD, soil analytical data were used to estimate the CVOC mass in the loess and the fluvial deposits. The RDI included a membrane interface probe (MIP) investigation, conducted October 2005 to August 2006, to characterize the magnitude and extent of elevated CVOCs in the loess on a 40 by 40 foot grid. MIP surveys were conducted at 174 locations and 72 soil samples were collected; the soil samples were used to correlate with the MIP results and to adequately delineate the CVOC concentrations below the MIP detection limit but above the RGs.

The highest concentrations detected in the loess soil samples from the four TAs are shown below:

Treatment Area	Depth Interval (feet, bgs)	CVOC Concentrations (µg/kg)					
		TeCA	PCE	TCE	cDCE	CT	CF
TA1	6 - 12	953,000	20,800	564,000	174,000	3,350	8,080
TA2	10 - 14	1,850,000	21,100	170,000	2,240	ND	6
TA3	28 - 29	3,110	6	1,560	3,350	6	35
TA4	14 - 15	190,000	2,360	4,280	ND	1,850	96,200

The MIP responses and the soil sample analytical results were used to estimate the mass of CVOCs in the loess. Two correction factors were developed because the MIP-soil sample correlation tended to underestimate the mass of CVOCs. The results for the four TAs are summarized below.

Treatment Area	CVOC Mass without Correction Factor (pounds)	CVOC Mass with Average Treatment Area Correction Factor (pounds)	CVOC Mass with Location-Specific Correction Factor (pounds)
TA1	750	6,400	10,100
TA2	250	2,200	4,000
TA3	<1	10	20
TA4	400	700	200
Total	1,400	9,310	14,320

The CVOC mass in the fluvial was calculated by multiplying the estimated CVOC mass in the loess by the concentration ratios and a volume factor (1.33) to account for the difference in treatment depth.

Treatment Area	CVOC Mass (pounds)	
	Loess	Fluvial
TA1	10,100	60 – 165
TA2	4,000	25 – 65
TA3	20	0.1 – 0.3
TA4	200	1 – 3
Total	14,320	90 – 230

2.4.3 Remedial Action Work Plans

Completion of the Source Areas RD was delayed while the RDI was performed and the remedy for the shallow subsurface soil (loess) was reviewed. The SVE remedy for deeper, coarse-grained fluvial soils was not in question and the BCT concurred at their November 2006 meeting that the FSVE component of the Source Areas RA be implemented on an expedited basis. Although the Source Areas RD had not been approved, no major changes to the FSVE component were expected based on initial comments from EPA and TDEC. The *Dunn Field Source Areas Fluvial Soil Vapor Extraction Remedial Action Work Plan, Rev.1* (HDR|e²M, 2007a) was approved by USEPA on 3 July 2007.

The *Dunn Field Source Areas Loess/Groundwater RAWP, Rev.1* (Loess/Groundwater RAWP), including the remaining components of the Source Areas remedy (ZVI injection in groundwater and TSVE and ET&D in the loess), received partial approval from USEPA on 2 October 2007. The RAWP was approved for RA construction and operation, with demonstration of attainment of the clean-up levels for subsurface soils left to be resolved. The Loess/Groundwater RAWP, Rev.2 was prepared to document the

final revisions with regard to the attainment of clean-up levels, a flow chart for the TSVE component, and an area of ET&D identified after completion of the Source Areas RD. The Loess/Groundwater RAWP, Rev. 2 was approved by USEPA on 4 March 2008 with the caveat that the BCT agreement on use of non-detect results in evaluation of confirmation sample results, which was not included, would be documented. The RAWP, Rev. 2 was approved by TDEC on 2 April 2008. The Loess/Groundwater RAWP, Rev. 3 was prepared to document agreement on use of non-detect results and the addition of confirmation samples in three areas with shallow (0 to 5 feet bgs) soil contamination; the RAWP was approved by EPA on 5 June 2008 and by TDEC on 7 July 2008.

3.0 CONSTRUCTION ACTIVITIES

Source Areas RA construction was performed in a phased approach, as follows:

- Installation of the FSVE system
- Initial ET&D at the two areas with shallow soil contamination and buried drums
- Construction and operation of the TSVE
- Final ET&D at the two areas

ZVI injections to be made after completion of TSVE were not performed because of the reduction in groundwater CVOC concentrations from the other actions. The RA construction activities for each component are described in the following sections.

Construction activities were performed by HDR|e²M under the direction of the project manager and the Construction Certifying Engineer. The site manager directed on-site activities with support from on-site staff and personnel from other HDR|e²M offices. Key subcontractors are identified in the summaries for each RA component.

3.1 FLUVIAL SOIL VAPOR EXTRACTION

AFCEE awarded Task Order 31 for construction and operation of the FSVE system to HDR|e²M on 1 March 2007.

3.1.1 Pre-Construction Activities

3.1.1.1 Meeting

Initial activities including location surveys, removal of a soil/rubble pile and installation of new MWs began in early April 2007 following approval from the BCT. The RAWP had not received final approval but the comments did not affect these activities.

A pre-construction meeting was held at DDMT on 18 April 2007 following the BCT meeting. The initial action was a site reconnaissance to view planned locations of SVE wells, vapor monitoring points (VMPs), and the treatment compound. The meeting included representatives of DLA, USEPA, TDEC, AFCEE and HDR|e²M. The discussion followed the agenda provided before the meeting.

The organization chart from the RAWP was used to review roles and responsibilities. The key subcontractors for the FSVE RA were:

- Site Grading: Terry Construction
- Drilling and Well Installation: Prosonic Corporation
- SVE System Construction: Onion
- Equipment Compound and Electrical: Jones Brothers
- Laboratory Analyses: Test America (STL Laboratories)

BCT members discussed the importance of communication during the construction and RA activities and requested RA updates and prompt notification when issues and/or concerns arise. It was agreed that the RA progress briefings would occur within the framework of the regular BCT meetings and that quarterly summaries would be submitted to the BCT during RA operations. The project schedule from the RAWP was used to discuss the status site preparation and upcoming RA activities; all tasks were on schedule. Site security during construction and RA activities was reviewed. HDR|e²M stated the SVE compound will have a locked gate and open stockpiling of materials at Dunn Field will be minimized. Where possible, materials will be stockpiled at the HDR|e²M field office on the MI.

The final construction inspection was scheduled to be held at the BCT meeting following completion of the construction activities. No other actions items were identified.

3.1.1.2 Other Activities

HDR|e²M provided oversight for mobilization of equipment, supplies, and personnel and coordinated the activities of subcontractors and vendors. Construction kick-off meetings were held with each on-site contractor prior to construction activities to verify that design criteria and specifications presented in this RAWP, site access issues, contract documents, and other pertinent project information were understood by all parties.

Brush and vegetation clearing was not necessary to install the FSVE system as the SVE wells, VMPs and piping runs were in open areas of Dunn Field. The vegetation on the soil/rubble pile in TA-3 was removed and most of the vegetation was mulched on site. Approximately 30 CY of tree roots were transported to Yard Waste (4921 Hickory Hill Rd., Memphis) and mulched. The soil pile was moved to the south across the asphalt pad and graded into the existing ground contours.

Benchmark Surveying, a Registered Professional Land Surveyor licensed in the State of Tennessee, performed pre-construction surveys. The locations of the SVE wells, VMPs, new groundwater monitoring wells and FSVE control compound were surveyed and marked.

Prior to commencement of drilling, Tennessee One-call was notified and the following utility companies sent representatives to Dunn Field: MLGW, ATT, XO Communications and 360 Networks. Each utility reported they had no underground utilities at Dunn Field. A temporary decontamination pad was constructed on Dunn Field to clean the drill rig and drilling tools between locations. A frac tank on the MI was used to store waste water prior to testing and disposal.

No FSVE component locations were shifted due to utilities or other concerns. However, crushed drums and other debris were encountered during drilling at VMP-7A and -7B and the locations were moved approximately 15 feet to the northeast maintaining their distance from SVE-F.

The existing asphalt/gravel road running north from Dunn Avenue was used for site access. The equipment lay down area and material storage area was established on the asphalt pad near TA-4. Work areas were marked with caution tape to keep unauthorized personnel from entering the drilling area.

3.1.2 Site Preparation

The soil/rubble pile in TA-3 measured approximately 90 feet by 160 feet and 30 feet high and contained approximately 8,000 in place CY of soil and concrete rubble. Silt fencing was installed on the west side (down slope) of the soil pile and the placement area to the south. The soil pile was excavated with a trackhoe on 16 to 19 April 2007. Concrete rubble greater than roughly 6 inches in diameter was separated for off-site re-cycling, and the remaining soil and small debris were graded into the slope south of TA-3. Approximately 2,000 CY of concrete rubble was taken to Metro Materials at 1581 Rozelle Street Memphis for crushing and reuse.

3.1.3 Baseline Groundwater Monitoring

Baseline groundwater conditions in the TAs were established prior to implementation of FSVE by collecting groundwater samples from new and existing monitoring wells. Existing polyvinyl chloride (PVC) monitoring wells located within and adjacent to the loess TAs had to be abandoned prior to start up of the TSVE system. In order to provide a consistent set of groundwater analytical data for evaluation of remedy effectiveness, replacement monitoring wells constructed with stainless steel were installed and sampled during the baseline sampling event.

Based on surveyed TA locations, eight monitoring wells were selected for abandonment: two wells in TA-1 (MW-11 and MW-181); five wells in TA-2 (MW-73, MW-131, MW-133, MW-177 and MW-188) and one well in TA4 (MW-173). Replacement wells were installed within 10 feet of three existing wells with high total CVOC concentrations; MW-73 was replaced by MW-222, MW-173 was replaced by MW-

227 and MW-177 was replaced by MW-223. The remaining five wells to be abandoned had total CVOC concentrations well below the target concentration of 1,000 µg/L and the other six replacement wells were installed at locations to improve the distribution of groundwater data within the planned groundwater TAs. The well locations are shown on Figure 8.

3.1.3.1 Well Installation and Development

Nine MWs (MW-220 through MW-228) were installed 23 April through 4 May 2007 at the locations shown on Figure 8. Well installation data are provided on Table 2.

The wells were installed in borings drilled using rotasonic methods with a 6-inch outer core and a 4-inch inner core barrels. Continuous soil cores were collected from ground surface to the termination depth of each boring. An HDR|e²M field geologist was present during drilling to record field observations and log the soil core. At each location, the borings were drilled 3 to 10 feet into the uppermost clay of the Jackson Formation/Upper Claiborne Group to confirm that the base of the fluvial aquifer was reached. Borings were back-filled with bentonite to near the top of the clay/base of the fluvial aquifer prior to well installation. The top of clay was encountered at depths of 77 to 88 feet bgs; the aquifer thickness varied from 3 to 11 feet. Soil boring logs are provided in Appendix A.

MWs were constructed of new, 2-inch inside diameter stainless steel with internal flush joined threaded joints and a 15-foot section of factory-slotted 0.010-inch well screen. Centralizers were attached to the well casing 1 foot from the bottom of the well and 1 foot above the top of the screen. A filter pack of clean 10/20 gradation filter sand was placed around the screen from the bottom of the well to at least 5 feet above the top of the well screen. The filter pack was gravity-placed through the 6-inch outer drill casing in lifts of 1 to 2 feet and the drill casing was vibrated as it was withdrawn between lifts to compact the sand filter pack. A bentonite seal at least 5 feet thick was placed above the sand and the annular space was filled with a high temperature grout mixture (Portland type H cement and 30% silica flour) to approximately 6 inches below the ground surface. All of the new wells had stick-up completions with a 6-inch locking well protector installed within a 3-foot by 3-foot by 0.5-foot thick concrete pad. Well construction was performed under the supervision of an HDR|e²M field geologist. Well completion diagrams are provided in Appendix B.

The new wells were surveyed by Allen & Hoshall, Inc. of Memphis, Tennessee, a Tennessee Registered Land Surveyor. Horizontal and vertical coordinates are based on the North American Datum, 1927 used for all survey data at DDMT. Horizontal coordinates were provided in the Tennessee State Plane coordinate system.

The wells were developed using a Grundfos Redi-Flo2 submersible pump. Measurements were made to evaluate well development in accordance with the Remedial Action Sampling and Analysis Plan (RA SAP) criteria: stabilized turbidity less than 10 nephelometric turbidity units (NTU), pH within 0.1 standard units, and temperature and specific conductance within 10 percent within three consecutive readings. Field measurements met the development criteria except for turbidity in four wells (MW-222, MW-223, MW-225 and MW-226). Well MW-222 was pumped dry four times and wells MW-223 and MW-225 were pumped dry three times; the final turbidity measurements were 665 NTU, out of range, and 375 NTU, respectively. Well MW-226 was developed for 6.5 hours; the final turbidity measurement was 37.7 NTU. A well development summary, including volume purged and final stabilization parameters, for the development is shown on Table 3.

3.1.3.2 Groundwater Sampling

Groundwater levels were measured in the baseline wells and other wells at Dunn Field on 14 May 2007 prior to sampling. Measurements were made using Solinst Model 101 water level meters with electronic sensors and tapes graduated in 0.01-foot increments. The water level measurements are shown on Table 4.

HDR|e²M collected groundwater samples from 33 MWs on 14 to 21 May 2007. Two of the planned baseline wells were not sampled: MW-10 was dry, and MW-135 had been damaged and the pump could not be lowered to the screen interval.

Groundwater samples were collected with stainless steel pumps using low-flow purging methods; new Teflon® bladders and Teflon®-lined polyethylene tubing were used at each well. After sampling the bladders and tubing were labeled, sealed in reclosable bags, and stored for future use. The pumping rate at each well was set such that the water levels would not decline more than 1.2 inches (0.1 foot).

Water quality parameters were measured at approximately 5 to 10 minute intervals during purging using a flow-through cell with a Horiba U-22XD. The units were calibrated each morning prior to sampling, and if abnormal readings were observed during the day, the instruments were recalibrated in the field. All measurements were recorded on the field sampling forms.

Purging continued at each well for up to two hours in order to meet the stabilization criteria: three successive readings within 0.1 for pH, 10 millivolts for oxygen reduction potential (ORP), 3 percent for specific conductance, 10 percent for dissolved oxygen (DO) and <20 NTU for turbidity. Temperature was also measured and recorded but was not used as a stabilization parameter. Samples were collected when stabilization criteria were met or the field team leader approved the variance from the criteria.

Stabilization criteria were met in all but two wells, MW-222 and MW-226, which had turbidity levels readings of 28.4 and 73.7 NTU after two hours of purging. The final stabilization measurements are shown on Table 5.

Samples were sent to STL Laboratories in Denver, CO for laboratory analysis. The samples were analyzed for VOCs by method 8260B, dissolved gasses by method RSK 175, total organic carbon (TOC) by method SW 9060, sulfide by method E376.1, nitrate, nitrite, sulfate, bromide, chloride by method E300.0, metals by method 6010B/6020, and alkalinity by method E310.1. Samples were field analyzed for ferrous iron and carbon dioxide in the field utilizing Hach colorimetric test kits.

3.1.3.3 Well Abandonment

Eight MWs (MW-11, MW-73, MW-131, MW-133, MW-173, MW-177, MW-181, and MW-188) were abandoned as planned, after the baseline sampling event. An additional well, MW-135, which was damaged and not suitable for sampling, was also abandoned. In addition, three PVC test wells installed for SVE field tests in loess TA TA-2 were abandoned.

The wells were abandoned in accordance with the MSCHD regulations. Well abandonment was performed by Prosonic and was observed by an HDR/e²M geologist. The total depth of each well was measured to confirm that no obstructions were present that might interfere with placement of the tremie pipe and grout. One-half gallon of bleach was poured into each well. The wells were filled with cement/bentonite grout (94 pounds of neat Type 1 Portland cement, up to 4 pounds of bentonite powder and up to 8 gallons of potable water) from the bottom up until undiluted grout was visible at the surface. The grout was tremied into the casing, keeping the side-discharge tremie pipe approximately 1 foot below the grout surface. The water displaced by the grout was contained and transported to the fractionation tank located near the decontamination pad and stored with other investigation-derived wastewater for testing and disposal. After allowing at least two days for grout settlement, the grout was topped off with concrete. All surface completions were removed and disposed as solid waste.

3.1.3.4 Groundwater Analytical Results

Groundwater samples were collected from 33 MWs during the baseline sampling event. The complete analytical results for the baseline groundwater samples are included in Appendix E for VOCs and for MNA parameters (dissolved gasses, TOC, sulfide, nitrate, nitrite, sulfate, bromide, chloride, metals, alkalinity, ferrous iron and carbon dioxide). The VOC analyses are summarized on Table 6, which includes the results for all VOCs detected above the reporting limit (RL) in one or more samples. Total CVOC concentrations at each well are shown on Figure 8.

A total of 14 VOCs were detected above RLs in the May 2007 samples. The analytical results for the primary CVOCs are summarized below:

Analyte	No. of Wells above RL	Maximum Concentration (µg/L)
Carbon Tetrachloride	10	49
Chloroform	22	1,100
cis-1,2-Dichloroethene	26	1,200
1,1,2,2-Tetrachloroethane	25	37,000
Tetrachloroethene	28	47
Trichloroethene	32	4,100

Total CVOC concentrations exceeded 1,000 µg/L in MW-220 in TA-1; MW-73, MW-132, MW-177 and MW-222 in TA-2; and MW-15, MW-173 and MW-227 in TA-4.

3.1.4 RA Notification

Notification of RA mobilization for the FSVE RA was submitted on 15 May 2007. The drilling contractor for the SVE wells and VMPs mobilized equipment and personnel on 14 May and began drilling that day following review of health and safety issues and discussion of RA activities. Construction of the SVE system was also begun at the contractor's off-site facility.

3.1.5 Fluvial SVE System Construction

FSVE system construction included the following major components:

- SVE and VMP Wells;
- SVE System Conveyance Piping and Trenching; and
- Treatment Compound, Control Building, and Interior Piping

3.1.5.1 SVE Well Construction

Seven SVE wells (SVE-A through SVE-G) were installed 14 May to 6 June 2007 at the locations shown on Figure 9. Well installation data are provided on Table 7.

The SVE wells were installed in 6-inch soil borings advanced using rotasonic drilling methods. Continuous soil cores were collected in 10-foot intervals beginning at the ground surface. Soil borings were advanced to approximately 5 feet above groundwater; boring depths ranged from 61 to 71 feet, bgs.

The boreholes were to be drilled approximately 0.5- to 1-foot below the target depth and backfilled with filter sand before installing the well. However, SVE-B, SVE-D and SVE-F were set at the bottom of the boring due to problems during installation. Soil boring logs are provided in Appendix A.

SVE wells were constructed of new, 2-inch inside diameter 304 stainless steel with 30 to 35 feet 0.006-inch, continuous-slot screens. Centralizers were used at the top and bottom of the screened section. Well risers were 10-foot lengths of stainless steel with internal flush-jointed threaded joints. The riser ended approximately 2 feet bgs and was completed with a stainless steel threaded "tee" and coupling for connection to the conveyance piping.

The filter pack consisted of washed and bagged sand with 4-20 gradation from the bottom of the borehole to approximately 5 feet above the well screen. A 5-foot seal of bentonite chips/pellets was installed above the sand and the annular space was filled with a high temperature grout mixture (Portland type H cement and 30% silica flour) to approximately 6 inches below the stainless steel "tee". SVE well construction was performed under the supervision of an HDR|e²M field geologist. Well completion diagrams are provided in Appendix B.

3.1.5.2 VMP Construction

VMPs were installed 15 May to 14 June 2007 at the locations shown on Figure 9. Ten set of paired VMPs (i.e., VMP-1A and VMP-1B) were constructed approximately 15, 30, 45, 60 or 80 feet from the associated SVE well. VMP installation data are provided on Table 8.

The VMP pairs were constructed in separate 6-inch diameter borings advanced using rotasonic drilling methods. Continuous soil cores were collected in 10-foot intervals beginning at the ground surface. Drilling depths were based on the associated SVE well; borings for VMP "A" wells were drilled to approximately 5 feet above the bottom of the SVE well screen (approximately 60 feet bgs) and borings for VMP "B" wells were drilled to approximately 5 feet below the top of the SVE well screen (approximately 40 feet bgs). Soil boring logs for the VMP borings are provided in Appendix A.

VMPs were constructed of new, 2-inch inside diameter 304 stainless steel with a 5-foot section of 0.010-inch slotted screen. Centralizers were used at the top of the screened section. Well risers were 10-foot lengths of stainless steel with internal flush-jointed threaded joints. The filter pack, bentonite seal and grout seal in the VMPs were installed in the same manner as the SVE wells. Each VMP casing extends approximately 3 feet above ground surface and is topped with a self-sealing vapor sampling cap with a brass, quick-connect coupling. The above-grade riser is protected with an 8-inch steel security casing

with locking lid set in a 3-foot by 3-foot, 4-inch thick concrete pad that slopes away from the well casing. VMP completion diagrams are provided in Appendix B.

3.1.5.3 Conveyance Piping

Conveyance piping was installed from each SVE well to the treatment compound to provide operational flexibility and the ability to adjust vapor flow rates from a central location. The piping is 4-inch diameter standard dimension ratio 11 high density polyethylene (DriscoPlex® Pipe Series manufactured by Performance Pipe, Plano, TX). Piping lengths were 40 feet and all sections were butt fusion welded. The conveyance piping connects to the stainless steel coupling and tee at the SVE well head via 2-in to 4-in transition coupling. Coiled pipe was intended to be used to minimize fused joints but was not available in 4-inch diameter.

Piping from each SVE wellhead was to be constructed aboveground to avoid heat damage during the TSVE treatment of the loess. After discussions with the TSVE contractor and pipe supplier, it was determined the pipe could withstand the expected temperature. The piping in the loess TAs was then buried to avoid damage during RA construction activities and to improve site access.

The piping lengths from each well to the control building are as follows:

Well	Piping Length (feet)
SVE-A	489
SVE-B	497
SVE-C	342
SVE-D	210
SVE-E	296
SVE-F	559
SVE-G	920

Piping trenches were dug 2 to 4 feet deep using a mini-excavator following the natural slope. The trench bottom was visually checked to maintain a gradual slope. Allen & Hoshall determined surface elevations along piping runs prior to trenching. The ground surface sloped back from the SVE compound (high point) to the individual wells (low point) along all piping runs except the combined run for SVE-F and SVE-G. The ground surface for the SVE-F and -G piping had relatively even slope except for a low point (about 4 feet lower than the ground surface at SVE-G and the SVE compound) 300 feet southwest of the

SVE compound. Excavation depths were adjusted to minimize the effect, but the piping run for SVE-F and -G does have a low point.

The piping from SVE-D and -E and from SVE-F and -G were placed in common trenches while piping from the other wells are in individual trenches. Piping trenches ended approximately 3 feet west of the SVE control building, immediately outside of SVE compound. Once above grade, the piping transitions to 4-inch flexible PVC hose (Kanaline SR PVC Hose manufactured by Kanaflex) with camlock connections. Although the SVE piping was not labeled, the trenches were left open until after system startup to inspect for leaks and to ensure each conveyance line was connected to the proper manifold leg.

Excavated material was stockpiled next to the trenches. Large rocks were removed prior to backfill. Sand and topsoil from the SVE Pilot Test area was also used as backfill. The trench was compacted in 1-foot lifts using a vibratory device. Locating tape was placed approximately 6 to 12 inches above the piping.

3.1.5.4 SVE Control Building and Treatment Compound

The SVE control building is a custom manufactured steel building (25 feet by 7.75 feet by 8 feet high) (Speed Space, Goshen, IN). The building floor is 3/16-inch steel plate painted black with non-slip floor paint. The building contains the SVE equipment room and an office, separated by an interior wall and doorway. Access to the equipment room from the outside is through two double doors (north side of building). Ventilation in the equipment building is provided by the heat exchangers, which pull air into the building through wall louvers located above the piping manifold. The equipment room contains the primary SVE system components including blowers, air-water separator and transfer pump, heat exchangers, and piping manifold. The office contains the system electric service panel, computer, desk, 12,000 British thermal unit air-conditioning unit, and power receptacles. Access to the office from the outside is through a single door (southwest corner of building). Both rooms contain ceiling florescent lighting. As-built drawings are provided in Appendix F.

The SVE control building is set in the treatment compound, a 40 by 30-foot, 6-inch thick slab-on-grade steel-reinforced concrete foundation adjacent to the Dunn Field access road. The concrete pad was expanded from the design size of 32 feet by 20 feet to allow space for the granular activated carbon (GAC) vessels and the condensate storage tank. The concrete pad is surrounded by an 8-foot high fencing with 3-foot high 3-strand barbed wire. The fence has three access gates, a pedestrian gate on the west side and two 8-feet wide swing gates on the north and south sides for machinery access.

3.1.5.5 SVE Piping Manifold

Individual SVE piping runs enter the SVE Building and connect to the SVE piping manifold via a rectangular opening the building's west wall (8" x 84"). The opening is framed with a 1/8" wall carbon steel bar with a flange plate extending beyond the outer building wall. The piping manifold contains 10 legs. Seven of the ten legs (one for each SVE well) were used at the system start up. The additional three legs are spares and can be used for future expansion of the SVE system. Each manifold leg contains the following components:

- Diaphragm valve, 3" (GIE, Inc.)
- Ball valve, bronze, 1/4" FNPT
- Sample port
- Vacuum gauge, 1/4" NPT, -100 – 0" w.c., 2 1/2" Dial (Dwyer Model #LPG1-D7722N)
- Flow meter, flange-end (ERDCO, Model #3211-12F5)

All manifold legs transition into a single 6-inch galvanized steel header pipe. The header pipe carries extracted vapor to the air/water separator (AWS).

3.1.5.6 Condensate Collection

Condensate from SVE operations is collected in a 135-gallon cylindrical AWS (Manufactured by TetraSolv, Anderson, Indiana, Model MS36-6-S). The volume was decreased from the 400-gallon AWS in the RD for improved access to equipment in the building; additional condensate storage was provided by the free-standing tank outside the building. The AWS system separates entrained liquid and debris within the air stream. Heavier particles drop to the floor of the tank. Lighter debris and water droplets are segregated from the air stream by a mist pad located within the AWS vessel. The airstream enters the AWS at a 6-inch inlet on the side of the tank and airstream exits via a 6-inch outlet at the top of the tank. The AWS vessel also has drain valve, bleed valve, vacuum relief valve and a sight glass for visual water level monitoring.

Condensate is transferred from the AWS to a 535-gallon freestanding polyethylene tank (located outside of the SVE building) via a 3-point float switch (LOW, HI and HI/HI) and transfer pump. The switch consists of three floats connected to a single rod and are used to indicate liquid level within the tank and control the on/off operation of the transfer pump. The HI/HI level acts as a "fail-safe" measure by cutting power to the blowers and heat exchangers. The transfer pump (Grundfos, Model HS-100-0505, 1/2-hp) is horizontal, single stage, end suction pump is mounted to the SVE building floor. A direct-read water

meter (Model #T-10, manufactured by Neputune Technology Group) and is located downstream of the transfer pump (inside the SVE Building).

AWS system piping within the SVE building is galvanized steel with 1 1/4-inch diameter from the AWS tank to the transfer pump and 1-inch diameter pipe and a bronze check-valve (Strata, Flo No. 400, 1-in, bronze) downstream of the transfer pump. Piping on the exterior of the SVE building is 1-inch rubber hose. All AWS water piping is wrapped in insulation and heat trace to protect against the cold during winter operations.

3.1.5.7 SVE Blowers and Heat Exchangers

Two regenerative, single stage blowers (Samos SB 1100D, manufactured by Busch) placed in a parallel configuration provide vacuum for the SVE system. Each blower is capable of producing approximately 777 actual cubic feet per minute (acfm) at 5.3 inches of mercury vacuum (in. Hg.) and 3,450 revolutions per minute. The blowers are powered by individual 13.1 horsepower (hp) motors (3-phase power at 230/460 V) and are anchored to the floor of the SVE building. The total flow of these blowers, in parallel configuration and with the initial seven wells in operation, is approximately 800 standard cubic feet per minute (scfm) at 5.7 in. Hg. The parallel configuration permits operation of a single blower (at lower flow rates) if one of the blowers requires servicing. The blowers were changed from the Gardner-Denver Turbotron vacuum blowers in the RD because of an extended delivery schedule; the Busch blowers were selected based on having similar operating parameters and availability.

Two heat exchangers (Model ACA6361-92544, manufactured by American Industrial Heat Transfer Inc, Zion, IL) are installed downstream of each blower to decrease the vapor temperature before the treatment system. The adsorptive capacity of GAC increases at lower air temperatures. The vapor is cooled through advective heat transfer by drawing cool ambient air across the heated air stream leaving each blower. The heat exchangers are powered by individual 3-hp motors (3-phase power at 230/460 V). The heat exchangers are mounted to the SVE Building wall to allow exhaust to exit the SVE building through two 36" x 36" openings on the east wall of SVE building. Ambient air enters the SVE building through two 48" x 48" openings on the west wall of SVE building above the piping manifold. The openings are covered with mesh screens and manually controlled louvers. Hoods mounted to the inlet windows reduce rainfall entering the SVE building. The vapor temperatures are reduced approximately 100 degrees (Fahrenheit) by the heat exchangers.

3.1.5.8 Vapor Treatment

Two 2,000-pound vapor-phase GAC vessels (Model VF-2000, manufactured by Tetrasolv Filtration, Anderson, Indiana) were installed in series ("lead" and "lag" positions) for vapor treatment prior to discharge to the atmosphere. The freestanding steel vessels contain two 6-inch openings on the side of each vessel; the airflow enters via the lower opening and exits through the upper opening. A 16-inch man way on the top of the vessel is used during carbon change-out and is bolted closed during system operation. Each vessel contains a pressure gauge, sampling port, and manually controlled drain valve.

Six-inch flexible hose connects the two vessels located outside the SVE building. Extracted vapor exits the lag vessel via a six-inch flexible hose attached to the exit stack, a 6-inch galvanized steel pipe secured to the SVE Building. A bronze sampling port (controlled by a 1/4-in ball valve) is tapped into the exit stack. When the GAC vessels are not in use, the flexible hose connects the discharge from the heat exchanger manifold directly to the exit stack.

3.1.5.9 Fluvial SVE System Controls

System controls for the SVE system are housed within the control panel enclosure located in the SVE Building office. The control panel holds the programmable logic controller (PLC), control switches and general circuitry of the SVE system. The PLC and control systems allow the SVE system to run with minimal personnel oversight by limiting (or shutting off) operation when system conditions (known as "faults" or "alarms") could be detrimental to key components. The PLC communicates system parameters to a notebook computer which provides real-time system parameters (system flow rates, hour meters, temperatures, pressures, etc), displays tripped faults (or alarms), and allows personnel to control key components (i.e., operation of individual blowers and/or heat exchangers). A dedicated data line allows communication of alarm conditions to the operator (via email or cell phone text messaging).

Blowers, heat exchangers, and the transfer pump are started from switches within the control panel. Light indicators represent the machinery operating and meters track operation time for all mechanical equipment (blowers, heat exchangers, and transfer pump). Manual disconnect switches allow the operator to isolate power to the blowers, heat exchangers, and transfer pumps. The system computer collects and stores system operational data, including: flow rate from individual SVE wells; influent pressure at the blowers; effluent temperature at each blower (influent to heat exchanger); pressure, temperature and system flow rate at the effluent of the heat exchangers (once conveyance lines converge into single line and before vapor treatment); and water level within the AWS tank.

All system controls and PLC programming were designed by Process Logic Corporation (Muncie, IN). System electrical wiring diagrams are provided with the as-built drawings in Appendix F.

3.1.6 Baseline Soil Sampling

3.1.6.1 VOC Analyses

Soil samples for VOC analyses were collected in the SVE well borings and the deep VMP borings at three depths, 8 feet, 18 feet and 28 feet below the bottom of the loess, using a 24-inch long 3-inch diameter split spoon advanced in front of the drill casing. The soil was screened and samples collected by the field geologist. The samples did not have staining or other visual signs of contamination and photoionization detector (PID) readings were not elevated. The soil core from SVE-B at 16 to 31 feet bgs did have a chlorine odor. Samples for VOC analysis were collected using three En Core® syringe-type samplers and were sent to STL Laboratories in Denver, CO, for laboratory analysis by EPA Method 8260B.

A total of 51 soil samples were collected from the 7 SVE borings and the 10 deep VMP borings during the baseline soil sampling event. The complete analytical results are included in Appendix E. The analytical results are summarized on Table 9, which lists the results for the primary CVOCs and for other VOC analytes detected above the RL in one or more samples. CVOCs detected above the RG are shown in bold type and are underlined where detected above 10 times the RG. RG exceedances for fluvial soils are shown on Figure 10.

There were no exceedances in samples from three borings (SVE-A, VP-01 and SVE-E). In the other borings, RGs were exceeded for TeCA in 39 samples with a maximum concentration of 17 mg/kg in SVE-B-M; for TCE in 5 samples with a maximum concentration of 0.67 mg/kg in VP-05-T; for TCA in 2 samples with a maximum concentration of 0.095 mg/kg in SWVE-C-T; and for CF in 1 sample at a concentration of 0.55 mg/kg in SVE-G-T. The only RG exceeded by a factor of 10 or more was TeCA in 24 samples.

3.1.6.2 CVOC Mass Estimate

The VOC analytical results were used to estimate the CVOC mass within an 80-foot radius of influence (ROI) for the SVE wells. The CVOC mass estimate is summarized on Table 10.

The sample results were used to determine an average total CVOC concentration for the three sample intervals (top, middle and bottom). The volume of soil within each interval assumed an 80-foot cylinder over the SVE screen length plus an additional 5 feet above and below. The volume was adjusted in TA-2

based on the overlap in the ROI for SVE-D and SVE-E. The soil density was assumed to be 100 pounds per cubic foot. The interval average concentration in mg/kg was multiplied by the kilograms of soil for the interval resulting in total milligrams of CVOCs in the interval which in turn was converted to pounds. The interval totals were summed resulting in total CVOC mass per location ranging from 1.4 pounds at SVE-A to 505.1 pounds at SVE-D and -E. The total estimated CVOC mass in the fluvial soils at Dunn Field is 979 pounds.

3.1.6.3 Geotechnical Analyses

Soil samples were collected from SVE wells and VMPs for grain size analysis. Samples were collected at three depths spanning the screened interval in the SVE wells and at the depth of the shallow and deep screens in the VMPs. Samples were collected in a one gallon ziplock bag and submitted to Construction Quality Consultants of Memphis for particle size analysis by American Society for Testing and Material D422. The test results are summarized on Table 11.

3.1.7 IDW Management

Solid waste generated during well construction and sampling was disposed as municipal waste in the dumpster located at the e²M field office. Soil cuttings collected from the installation of the new baseline groundwater MWs, SVE wells and VMPs were placed in a roll-off container, except for cuttings from MW-220 and MW-222, which were placed in two 55-gallon steel drums because of stained soil and elevated PID readings. The soil samples sent for geotechnical analysis were picked up by HDR|e²M after analysis and were also placed in the roll-off. Three characterization samples were collected 18 June: Investigation Derived Waste (IDW)-1 FSVE was collected from the roll-off and IDW-2 FSVE and IDW-3 FSVE were collected from the drummed soil. The analytical results demonstrated the soil was non-hazardous and it was disposed at the BFI South Shelby landfill on 31 July 2007. The waste manifest is in Appendix D.

IDW wastewater generated from the baseline MWs during equipment decontamination, well development and purging prior to sampling was placed in a fractionation tank located on the MI. A water sample from the fractionation tank was collected on 8 May and analyzed for VOCs, SVOCs, metals, and pH. A request for disposal was sent to the City of Memphis on 22 May; approval was received on 24 May. The wastewater (20,152 gallons) was pumped into the sanitary sewer on 24 May 2007. The discharge request and approval are in Appendix C.

No development or purge water was generated from the SVE and VMP wells because they did not reach the water table and no water collected in the trenches during construction.

3.1.8 As-Built Survey

Allen & Hoshall, Inc. of Memphis, Tennessee, a Tennessee Registered Land Surveyor, determined as-built locations for the SVE wells, VMPs, conveyance piping trenches and the treatment compound. The survey established ground surface and top of casing elevations for each well and VMP relative to mean sea level. Horizontal and vertical coordinates are based on the North American Datum, 1927 used for all survey data at DDMT and horizontal coordinates were provided in the Tennessee State Plane coordinate system. Horizontal control is within 0.1 foot and vertical control is within 0.01 foot. The survey plots are provided in Appendix G.

3.1.9 Demobilization and Site Restoration

Drilling equipment was cleaned at the temporary decon pad on Dunn Field before leaving the site. The decon pad was removed; wastewater was placed in the fractionation tank, the soil added to the drill cuttings and the liner was disposed of as solid waste. After conveyance trenches were backfilled, the equipment was cleaned of mud and dirt, refueled and returned to the equipment rental facility. The equipment was washed down in a grassed area near TA-4 and the soil from the equipment was spread out. Extra piping and fittings were stored at the field office at 2241 Truitt Street. All equipment and leftover materials from the installation of the building pad and fence were removed by the contractor and disposed as solid waste.

3.1.10 Performance Monitoring Results

Performance monitoring for the FSVE includes pressure measurements at VMPs to confirm vacuum influence throughout the planned ROI for the SVE wells (60 feet) and vapor monitoring at VMPs, SVE wells and system effluent to estimate CVOC mass removal from the fluvial soils and to evaluate progress toward meeting RAOs. Vapor monitoring is also used to monitor compliance with the FSVE Operating Permit #01030-01P issued by the MSCHD; the permit requires VOC emissions below 5.71 pounds per hour (lb/hr) or 25 tons per year. Vapor monitoring was accomplished through field measurements with a MiniRae 2000 (10.6 eV lamp) PID and samples collected for laboratory analysis using EPA Method TO-15.

3.1.10.1 Vacuum Measurements

Vacuum measurements are collected at VMPs by connecting an analog vacuum gauge to each VMP via a quick connect fitting on the well cap. Measurements since system start-up are shown on Table 12 and indicate vacuum influence at distances greater than 80 feet from SVE wells.

3.1.10.2 PID Measurements

Field VOCs concentrations are collected from individual SVE wells, treatment system (influent, mid-bed, and effluent), and VMPs. For measurements at the SVE wells and VMPs, an oil free vacuum pump is used to draw the vapor stream into a tedlar bag. The tubing in the VMPs are purged of three volumes. After purging, a valve is opened to allow the Tedlar bag to fill. At least three readings are collected per location and readings continue until three measurements are within 10%. A sampling pump is not needed at the treatment system locations, as these areas are under positive pressure. PID readings at the SVE wells and system effluent are generally collected weekly; the measurements are shown on Table 13. The trend in PID measurements at SVE wells is shown on Figure 11.

PID readings were collected from VMPs prior to system startup and then quarterly. The PID readings from VMPs are shown on Table 14. The trend in PID measurements at 'A' VMPs is shown on Figure 12 and 'B' VMPs on Figure 13.

Ambient air monitoring using the PID is conducted weekly at the north, south, east, and west perimeter of the SVE compound when the system is operating. A background reading is collected 100 feet upwind of the SVE compound. The PID is calibrated daily and readings are recorded on field sheets. PID readings have continuously been 0 ppm since system start up.

3.1.10.3 Vapor Samples

Vapor samples were collected from SVE wells and the treatment system (influent, mid-bed, and effluent) monthly during the first three months of operation and quarterly thereafter. The vapor treatment system was taken off-line on 5 October 2007 due to reduction in effluent concentrations; the only treatment system sample collected after that was the effluent. Samples were collected from VMPs prior to system startup and annually thereafter.

Laboratory samples were collected in 6-liter Summa canisters with a regulator that limited sample collection to 200 milliliters per minute. Sample collection followed EPA guidance document *Standard Operating Procedure (SOP) 1704: SUMMA Canister Sampling* (1995) and Section 14 of the November 2001, EPA Science and Ecosystem Services Division *Environmental Investigation Standard Operating Procedures and Quality Assurance Manual*. The Summa canisters are supplied with a vacuum between 28 and 30 inches, Hg, which is sufficient to pull a sample over the system vacuum of approximately 6 inches, Hg at the SVE well manifold and VMPs. Samples were analyzed for VOCs by U.S. EPA Method TO-15. Additional samples were collected on 3 and 16 August 2007 due to early breakthrough of the GAC system.

Three SVE wells (SVE-B, SVE-E, and SVE-F) were offline for a four-week period (20 March to 18 April 2008) to evaluate contaminant rebound from wells that had declined to near RGs. The four other SVE wells remained online with both blowers in operation. Laboratory samples were collected from the three offline wells and associated VMPs at two weeks (3 April) and four weeks (18 April) into the shutdown. Following the second sample event, all SVE wells were brought online.

The laboratory analytical results are shown on Table 15 for the treatment system samples, on Table 16 for the SVE wells and on Table 17 for the VMPs. System influent concentration trends are plotted on Figure 14 and show a close relationship between field PID measurements and laboratory results. The trend in total VOC concentrations at SVE wells and system influent is shown on Figure 15.

3.1.10.4 Mass Removal Estimates

VOC concentrations in the influent sample (based on TCE, the primary constituent), system operating hours, and flow rates were used to calculate the VOC mass removed from the fluvial soils. VOC concentrations used for mass calculations are shown on Table 18. Estimated VOC mass emission for the FSVE are shown on Table 19.

Influent emission rates were estimated as high as 17 lb/hr at system startup, but have declined as effluent concentrations have decreased. The recent emission rate was estimated at 0.03 lb/hr based on samples collected in January 2009. The FSVE system removed 3,870 pounds of VOCs from system startup through January 2009 (Table 19).

3.2 LOESS/GROUNDWATER RA

AFCEE awarded Task Order 43 for implementation of the Loess/Groundwater RA to HDR|e²M on 25 September 2007.

3.2.1 Pre-Construction Activities

3.2.1.1 Meeting

A pre-construction meeting was held at DDMT on 11 October 2007. The meeting included representatives of DLA, EPA, TDEC, AFCEE, HDR|e²M and TerraTherm, either in-person or via conference call. The discussion followed the agenda provided before the meeting.

The organization chart from the RAWP was used to review roles and responsibilities. The key subcontractors for the Loess/ Groundwater RA were:

- TSVE System: TerraTherm
- ZVI Injection: ARS
- Laboratory Analyses: Microbac (soil and groundwater), Columbia (vapor)

The EPA representative requested regular progress report, weekly if possible, to include VOC removal by the SVE systems; reports should discuss individual CVOCs, especially the primary constituents, TeCA and TCE. No other specific project expectations were identified by the BCT.

The status of the RAWP and the addendum for ET&D at TA-3 were discussed. Buried crushed drums at TA-3 were identified in June 2007 during construction of the FSVE system, after initial submittal of the RAWP. The TA-3 addendum was incorporated into the final RAWP. No significant issues that would prevent RA construction were identified.

Site preparation activities including the geophysical survey to delineate the extent of drums at TA-3 and the location survey for the loess TAs were discussed. Soil confirmation sample analyses following the TA-3 ET&D were agreed to require complete target compound list and target analyte list parameters and TDEC requirements for petroleum releases were reviewed. RA mobilization was scheduled for 22 October. The schedule for ET&D at TA-1F was discussed; the dates were to be coordinated with EPA and TDEC representatives in order for them to observe activities.

TSVE operations were discussed, including the ability to add heater wells. TerraTherm stated that several measures to improve soil heating would be considered, if necessary: increased air extraction, increased electrical current to the heater wells and installation of additional heaters. ZVI injection locations were confirmed to be determined through groundwater sample analyses following completion of TSVE.

Following the meeting, the attendees went to Dunn Field to observe site conditions and the surveyed locations of the loess TAs for ET&D and TSVE. No other actions items were identified.

3.2.1.2 Other Activities

Pre-construction surveys were performed by Allen & Hoshall. The boundaries of the loess TAs were marked and selected heater wells were marked in each area to aid the layout of the heater and vacuum extraction wells. After drilling was completed and the Shotcrete cover installed, the TAs were again surveyed to confirm heater wells extended beyond the TAs as planned and to mark the confirmation sample locations. During soil confirmation sampling, each sample location was surveyed after soil samples were collected. TA survey plots are included in Appendix G.

The Tennessee One call system was contacted prior to excavation and TSVE drilling operations. Each utility reported they had no underground utilities at Dunn Field. A geophysical survey to check for unmarked underground utilities was performed by FPM Geophysics on 12 to 16 November 2007. Some storm sewer lines were located but no hazards to excavation or drilling were found. The geophysical survey report is included in Appendix H. Overhead clearance from the transmission lines crossing Dunn Field was confirmed with MLGW for drilling locations within the TAs. No drilling locations areas were shifted due to utilities or other obstructions.

A decontamination pad was constructed south of TA-3 using a 20-mil liner on top of 1-foot of pea gravel; a six-inch perforated drainage pipe was placed in the gravel to capture decontamination water. The water was pumped to a fractionation tank for storage, testing and disposal. An area for tire-cleaning was graded flat and covered with 1-foot of 4- to 6-inch rock. During excavation, the rock bed removed mud and dirt from the haul trucks' tires as they traversed the rock; the rock bed was rotated with a front end loader to keep it operating effectively.

All construction equipment, supplies, fractionation tanks, and roll-offs were staged on the asphalt pad south of the TA-3 excavation. Temporary orange fencing was installed around the TA-3 excavation area. Silt fencing was installed west of TA-3 between the excavation area and a surface drainage feature.

3.2.2 Site Preparation

The eastern side of Dunn Field containing approximately 40 acres was transferred through a public sale on 24 October 2007. The property had been identified for unrestricted re-use in the Dunn Field ROD. Prior to the start of the Loess/Groundwater RA, the new property line was surveyed, abandoned railroad tracks on the property retained by DoD were removed, a perimeter fence was installed along the new property line, and a new gate and access road was constructed. The locations of the site modifications are shown on Figure 16. Erosion control measures were not necessary because of limited soil disturbance and lack of slope in the work areas.

Terry Construction Company mobilized personnel and equipment on 8 August 2007; a safety meeting was held and the area of RR track to be removed was marked. The removal included rails, crossties, connector plates and miscellaneous steel parts, and gravel ballast. The rails suitable for reuse were stacked and transported to TracWork at 1610 Channel Ave. Memphis. Scrap metal was sent to Remarket, Inc, at 2220 Channel Ave., Memphis. The railroad ties in good shape were transported to Terry Construction's yard for reuse or resale. The unusable ties were placed in roll off boxes and disposed by

Terry Construction as solid waste. The removal of 2,160 feet of track was completed on 15 September 2007.

Road construction included a curb cut for a new entrance on Dunn Road, 463 feet of new paved road from the new gate to connect with the existing paved access road and 175 feet of new gravel road for access to the north section of Dunn Field and the IRA main discharge connection to the City of Memphis sewer. Design drawings prepared by Allen & Hoshall are provided in Appendix I. Terry Construction began construction of the access roads on 15 September and completed the work on 25 September 2007.

West Memphis Fence mobilized personnel and equipment on 9 September 2007; a safety meeting was held and fence design was reviewed. The fence was constructed approximately 3 feet west of the property line to allow mowing on both sides without encroaching on the transferred property. The new gate was installed on Dunn Road and the new eastern perimeter fence with 3,255 feet of 6-foot chain link and two pedestrian gates for mower access were completed on 19 September 2007.

3.2.3 RA Notification

Notification of RA mobilization for the Loess/Groundwater RA was submitted on 18 December 2007. HDR|e²M mobilized equipment and personnel to DDMT on October 22, 2007 to perform the ET&D activities and additional site preparation for the loess TAs. The TSVE subcontractor mobilized personnel and equipment to Dunn Field on November 26 and began drilling the heater wells on December 3, 2007. The RA notification was delayed based on previous discussion with EPA that only the initial notification for the FSVE construction was necessary for the Source Areas RA.

3.3 EXCAVATION, TRANSPORT AND DISPOSAL

Two areas, one in the northwest portion of TA-1 (TA-1F) and the other in the western portion of TA-3, were selected for ET&D. TA-1F was estimated to contain approximately 120 CY of CVOC-impacted soil. TA-3 area was estimated to contain approximately 3,200 to 10,500 CY of crushed, buried drums, associated soil and other debris.

3.3.1 TA-1F Initial Excavation

A soil sample collected at a depth of 10 to 11 feet in RDI boring I32 contained CF at 1.01 mg/kg, slightly above the RG of 0.917 mg/kg. The MIP response indicated CVOCs were present above RGs at depths of 8.5 to 13 feet. None of the surrounding borings had elevated MIP responses. The RA for TA-1F was ET&D of soil in an area 20 by 20 feet at 7 to 15 feet bgs (Figure 6).

3.3.1.1 Round 1 Excavation

The planned excavation at TA-1F was completed on 6 to 7 November 2007 with a track hoe and rubber-tired loader. An exclusion zone was established around the excavation area, large enough to allow movement of equipment and stockpiling of excavated material. The upper 7 feet of soil was stockpiled adjacent to the excavation on 20-millimeters PVC liner; at the end of the workday, stockpiled material was covered with a PVC liner. The soil from 7 to 15 feet (approximately 120 CY) was placed into 7 lined roll-offs; roll-offs were covered as they were filled and at the end of the work day. Temporary fencing was installed around the perimeter of the excavation and remained in place until the excavation was backfilled.

During excavation, a layer of white material (dry, fine grained with no odor) approximately 6 inches thick was encountered at a depth of approximately 9 feet bgs along the west and south excavation walls. No other debris or stained soil was observed in the excavation.

Confirmation sample locations were selected in accordance with the Michigan DEQ *Verification of Soil Remediation Guidance Document* (Michigan DEQ, 1994). The small site soil guidance was used for TA-1F with samples collected in areas considered likely to exceed the cleanup criteria. Seven confirmation samples (TA-1-Floor-1, TA-1-Floor-2, TA-1-South-1, TA-1-South-2, TA-1-North-1, TA-1-East-1, and TA-1-West-1) were collected from the excavation on 7 November 2007 (Figure 17). The sample from the West sidewall (TA-1-West-1) was collected from the white material, and the two samples from the South sidewall were collected from soil 6 to 12 inches above (TA-1-South-1) and below (TA-1-South-2) the white material. The samples were collected from the excavator bucket using En Core® samplers. The confirmation samples were submitted for VOC analysis, as outlined in the RAWP. An additional sample of the white material was collected in an 8-ounce glass jar and submitted for analysis of SVOCs, metals, pesticides, herbicides, and PCBs.

In addition to the confirmation samples, one backfill sample (TA-1-Backfill) was collected from the upper 7 feet of stockpiled soil and one disposal characterization sample (TA-1-Disposal-1) was composited from the roll-offs. The backfill sample was submitted for VOC analysis only. The composite disposal characterization sample was analyzed for reactivity, corrosivity and ignitability (RCI); Toxicity Characteristic Leaching Procedure (TCLP) analysis of VOCs, SVOCs, metals, pesticides and herbicides. All samples were submitted to Kemron Laboratories (Kemron) for analysis. The complete analytical results are included in Appendix E.

The analytical results for VOCs are summarized on Table 20, which lists the results for analytes detected above the RL in one or more samples. CF was the only VOC detected above the RL in the five soil samples; concentrations ranged from 0.00207 mg/kg to 0.342 mg/kg and were below the RG of 0.917 mg/kg. Four VOCs were detected above the RL in the sample collected from the white material (TA-1-West-1): bromodichloromethane (0.00448 mg/kg), CT (0.317 mg/kg), CF (52 mg/kg), and PCE (0.0142 mg/kg). The concentrations of CF and CT exceed the RGs.

The laboratory analyses for TA-1-West-1 are summarized on Table 21. VOCs were the only organic compounds detected above RLs. Metals concentrations were below the RGs. Further review of the mass spectrogram by Kemron indicated the white material contained high concentrations of a chlorinated organic tentatively identified as 2,4,6-trichloro-isocyanate; potential uses of this compound are in pesticides and production of polyurethanes. The composition of the white material was not identified.

The only VOC in detected the stockpiled soil was CF at 0.00797 mg/kg, below the RG. The analytical results for the composited waste characterization sample did not exceed hazardous waste criteria.

3.3.1.2 Round 2 Excavation

Additional excavation was performed at TA-1F on 5 to 7 December 2007 to remove the remaining white material. The original excavation was extended along the west wall approximately 7 feet and approximately 1.5 feet along the western end of the south wall. Soil from ground surface to approximately 1 foot above the white material was stockpiled. The additional excavation extended to the original depth of 15 feet in order to collect soil that fell into the excavation. Approximately 45 CY of soil and white material was placed in three lined roll-offs.

A 24-inch storm water pipe encountered at a depth of approximately 5 feet (mid-point) prevented further excavation to the west. A trench was excavated west of the storm water pipe, approximately 5 feet from the excavation to avoid damage to the pipe. The white material was only observed along the eastern edge of the trench. Old uniforms and clothing were encountered in the trench. After recording observations, the trench was backfilled with the excavated soil and clothing. One confirmation sample (TA-1-Floor-3) was collected on 7 December along the floor of the additional excavation and submitted to Kemron for VOC analysis by EPA Method 8260B.

The analytical results summary is included on Table 20 with the Round 1 confirmation samples; the complete analytical results are included in Appendix E. No VOCs were detected above RLs. Additional sampling of the stockpiled soil and the soil placed in roll-offs for disposal was not required based on the small volume.

The excavation limits were surveyed by Allen & Hoshall on 11 December 2007. The initial excavation, confirmation sample locations and the exploratory trench are shown on Figure 17.

3.3.1.3 Air Monitoring

Air monitoring for dust and organic vapors was performed during excavation activities using a Haz Dust HD 1100 Respiratory Particulate Air Monitor. Background measurements were recorded at site monitoring points prior to starting excavation. Air monitoring equipment was calibrated daily. PID readings were collected near the excavation and at perimeter monitoring points. Dust monitoring was also performed at the measurement points around hourly during excavation. All measurements were recorded in the field log book. The majority of PID and dust readings were zero; no readings were elevated beyond safe levels or levels set in the Site Specific Health and Safety Plan (HASP).

3.3.1.4 Backfill

The initial excavation was backfilled on 15 December 2007 with the stockpiled soil and soil fill from President's Island, located southwest of Memphis. Analytical results for samples of the off-site fill material did not exceed RGs. A memorandum with site observations and sample analyses for the off-site borrow source is included as Appendix J.

3.3.1.5 Waste Disposal

The soil in the seven roll-offs from the Round 1 excavation was transported for disposal as non-hazardous waste at the Waste Management Inc. (WMI) Tunica, MS landfill on 4-5 December 2007. The soil in the three roll-offs from the Round 2 excavation was transported for disposal as non-hazardous waste at the WMI Tunica landfill on 10-11 December 2007. Waste disposal manifests are provided in Appendix D.

3.3.2 TA-3 Initial Excavation

The area of buried, crushed drums at TA-3 covered an area approximately 120 by 130 feet based on the geophysical survey. The area is shown on Figure 6.

An exclusion zone was marked around the excavation area using orange plastic construction fencing fastened to steel fence posts. The SVE lines running through the excavation area to SVE wells F and G were exposed to avoid damage during excavation.

Test pits were excavated on 25-26 October to confirm the extent of buried drums estimated from the geophysical survey and to determine the depth of buried drums. A rough grid with a spacing of 30 to 40 feet was laid out over the excavation area; nineteen test pits were excavated by trackhoe with at least one

in each grid. Drums were observed at several locations to depths of 6 feet bgs. Other observations included construction debris, discolored soil and elevated PID readings. The excavated material was placed back in each pit when observations were completed. The geophysical survey results, approximate test pit locations and estimated extent of drums are shown on Figure 18.

Site excavation was initiated in the northwest corner of TA-3 on 27 October 2007 and continued in stages through 8 January 2008. The initial stage continued to 28 November when excavation was halted due to vials containing an unknown white powder being observed. After the contents of the vials were determined to be non-hazardous on 13 December 2007, excavation resumed. Shortly after excavation had started, two ordnance casings were excavated, work was halted again and the site secured. After the casings were determined to be safe and removed from the site by explosive ordnance disposal personnel, excavation resumed on 4 January 2008. The excavation was completed on 7 January 2008 with all observed crushed drums removed. Confirmation soil samples were collected on 14 January 2008.

During the initial stage of excavation, soil and debris was excavated with a track hoe and stockpiled; two rubber-wheeled loaders then transferred it to roll-offs. The roll-off supplier was to provide 54 roll-offs for use at Dunn Field; when work began it was determined that only 12 roll-offs were available and only 6 roll-offs could be transported per day. Composite waste characterization samples were initially collected for every 250 CY of soil, approximately 12 roll-offs, and submitted for expedited analysis. Two sets of roll-offs were sampled on 05 November and 09 November 2007.

WMI initially required TCLP composite soil samples collected every 250 CY of soil and debris. After the landfill was comfortable that the soil characteristics were consistent, the sampling frequency was increased to every 500 CY. Due to the limited availability of roll-offs and the amount of soil handling, it was determined that samples would be collected to pre-characterize the soil and debris for disposal. Following discussion with WMI, it was determined that waste characterization samples would be collected from seven grids covering the area remaining to be excavated. The samples were collected on 12 November 2007 (Section 3.3.2.3) and following review of the results, soil and debris was loaded directly to 20-CY end dumps for immediate transport to the landfill. Roll-offs were utilized to continue excavation when end dumps were not available.

Soil berms were used on the upslope side of the open excavation to divert rainwater from the excavation. Rainwater that ponded within the excavations was pumped into two 20,000-gallon frac tanks located on the southern edge of TA-3.

A water truck was used to regularly spray the roads with potable water for dust control. The water truck was also used to decontaminate the large excavation equipment.

The excavation limits were surveyed by Allen & Hoshall on 8 January 2008. The TA-3 excavation limits, shown on Figure 19, covered an area of approximately 14,000 square feet with an average depth of 5 feet.

3.3.2.1 Excavation Delays

3.3.2.1.1 Stormwater Damage

During excavation in the west-central area of TA-3 on 9 November 2007, a 24-inch stormwater drainline was damaged. Excavation was halted while the damaged section of pipe was removed and a new section installed. Repairs were completed on 10 November.

3.3.2.1.2 Vials

A few small cylindrical glass vials (2 inches long and 0.25 inch diameter) containing a white powder were observed during test pit excavation in the northwest section of TA-3 on 25 October 2007. Following discovery of additional vials, excavation activities were initially shifted to another area of TA-3 and then halted on 28 November 2007. Due to the possible disposal of chemical agent identification sets at Dunn Field, the vials were considered a health and safety concern.

On 6 November 2007, HDR|e²M contacted the U.S. Army Engineering and Support Center, Huntsville (CEHNC) to obtain additional information into the possible contents of the vials, and CEHNC contacted the Edgewood Chemical Biological Center (ECBC) located at Aberdeen Proving Ground for assistance. CEHNC and ECBC indicated that based on appearance and past DDMT activities, the vials likely did not contain CWM. Four vials were shipped to ECBC on 20 November 2007 for analysis; however, the small amount of white material was not sufficient and the analyses were inconclusive. Additional vials collected from the TA-3 excavation and held at DDMT were picked up on 29 November and delivered to ECBC by an Army courier. On 10 December 2007, ECBC reported that no CWM or other agents of concern was present in the vials. ET&D activities at TA-3 resumed on 13 December 2007.

3.3.2.1.3 Ordnance Casings

Shortly after excavation resumed on 13 December, two suspected ordnance casings were discovered approximately two feet bgs in the western portion of TA-3. One casing was discovered in a crushed condition while the other one was fairly intact and recognizable. Immediately after discovering the casings, excavation equipment and personnel were removed from the area and the area was secured by HDR|e²M personnel located at the site entrance on Dunn Avenue. Photographs of the casing and a map

showing their location was sent to DLA and AFCEE within an hour of the discovery. The remedial project managers at TDEC and EPA, and the Memphis Fire Department (MFD) and Bomb Squad were also notified. A fact sheet was provided to local residents.

Dunn Field was kept secure until personnel from the 22nd Chemical Battalion (Technical Escort) from Gadsden, Alabama (an attachment of Aberdeen Proving Grounds) arrived at Dunn Field on 14 December 2007. The specialists inspected both casings and determined that no danger was present. The recognizable ordnance casing was placed in the Memphis Bomb Squad's containment vessel and transported to their facility for disposal. The crushed ordnance was determined to be scrap metal and was left for disposal with the other material from TA-3. The ordnance specialists considered the area safe for continued excavation. A press release was issued to the local media and a final fact sheet was provided to area residents.

Based on the discovery of the ordnance casings, the Health and Safety Plan (HSP) was amended to include oversight by an unexploded ordnance (UXO) technician for all remaining excavation at TA-3, as described in *HSP Amendment – Excavation Activities at Dunn Field* (HDR|e²M, 2007). Munitions Management Group was subcontracted to provide UXO oversight and their technician arrived at Dunn Field on 2 January 2008. Excavation work resumed at TA-3 on 3 January and was completed on 8 January 2008. No additional ordnance casings were observed.

3.3.2.2 Confirmation Sampling

3.3.2.2.1 Sample Procedures

Confirmation soil sample locations were selected in accordance with the Michigan DEQ *Verification of Soil Remediation Guidance Document* (Michigan DEQ, 1994). Due to the size of the final excavation, the guidelines for a medium site (10,890 to 130,680 square feet [sq. ft]) were used. The final excavation covered an area of approximately 14,000 sq. ft. and averaged approximately 5 feet deep. The entire excavation area was overlain by crushed drums and other debris, and observation of the excavation floor did not indicate the need for increased sample density in any particular area. A sample grid with a spacing of 18 feet was established with the border extending outside the excavation limits to incorporate the sidewalls. The excavation included all or part of 54 grids. Since the guidance document states that at least 25% of the grids are to be sampled, 14 sample grids were selected using the random number function in MS Excel; the selected grids are highlighted on Figure 19.

The center of each grid was marked by field personnel and samples were collected on 14 January. Samples locations were shifted from the center of the selected grids based on observations of debris or

discolored soil where present and to avoid areas of standing water or deep mud. Samples were collected from the excavation using hand tools. The upper few inches of soil disturbed by the excavation equipment were removed and the sample collected from the underlying soil. Samples for VOC analysis were collected using an En Core® sampler. Samples for other analyses were placed directly in the container; samples were not composited. The final sample locations were surveyed by Allen & Hoshall on 15 January.

Samples were shipped to Kemron Environmental Services in Marietta, Ohio on 14 January for analysis of VOCs, SVOCs, pesticides, PCBs, herbicides and metals, as described in the Addendum. The analyses were performed on an expedited basis with results provided on 22 January.

3.3.2.2.2 Analytical Results

Analytical results for the confirmation samples are summarized on Table 22, which lists the constituents detected above the RL in one or more samples. The complete analytical results for the TA-3 confirmation samples are included in Appendix E. Table 22 also lists the RGs from the Dunn Field ROD for Disposal Sites subsurface soils (Table 2-21C) and for VOCs in soil (Table 2-21G). Preliminary remediation goals (PRGs) are shown for detected constituents for which an RG has not been established; the PRGs shown are the lower of the industrial soil level and the soil-to-groundwater screening level (with a dilution-attenuation factor of 20).

No herbicides or PCBs were detected above RLs. No pesticides were detected above RGs. Limited RG and PRG exceedances were observed for VOCs, SVOCs and metals.

Three VOCs were detected above the RG or the PRG in one soil sample, TA-3-12, located in the floor of the excavation. Two of the VOCs, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene, were detected at 107 mg/kg and 58.8 mg/kg, above their respective RGs of 1.26 mg/kg and 1.24 mg/kg. Benzene was detected at 0.484 mg/kg, above the PRG of 0.03 mg/kg.

Five SVOCs were detected above the RGs in up to seven samples from the excavation sidewalls and floor: Benzo(a)anthracene was detected above the RG (21.1 mg/kg) in four samples at concentrations of 26 to 160 mg/kg; Benzo(a)pyrene was detected above the RG (2.11 mg/kg) in seven samples at concentrations of 3.58 to 240 mg/kg; Benzo(b)fluoranthene was detected above the RG (21.1 mg/kg) in four samples at concentrations of 26.2 to 196 mg/kg; Benzo(k)fluoranthene was detected above the RG (211 mg/kg) in one sample at a concentration of 233 mg/kg; and Indeno(1,2,3-cd)pyrene was detected above the RG (21.1 mg/kg) in three samples at concentrations of 26.9 to 125 mg/kg.

Two metals were detected above the RG in the duplicate for sample TA-3-27, located in the sidewall of the excavation. Barium and arsenic were detected at 3000 mg/kg and 50.7 mg/kg, above their respective RGs of 1600 mg/kg and 29 mg/kg. The reported concentrations in sample TA-3-27 were 183 mg/kg for barium and 10.6 for arsenic. The averaged concentration from the two samples for barium (1592 mg/kg) is slightly below the RG while the average for arsenic (30.7 mg/kg) is slightly above the RG. Iron was detected at 108,000 mg/kg in floor sample TA-3-12, slightly above the PRG of 100,000 mg/kg. All other sample results for iron were well below the PRG.

3.3.2.2.3 Summary

Although reported concentrations of VOCs, SVOCs and metals in soil confirmation samples exceeded RGs, further excavation was not performed in order to proceed with construction of the TSVE system for remediation of CVOCs in the loess. CVOCs in the loess resulted in significant groundwater impacts to the fluvial aquifer and were the primary focus of the Source Areas RA. The TA-3 excavation was backfilled on 25-28 January 2008.

3.3.2.3 Disposal Characterization Samples

Disposal characterization requirements were determined in coordination with WMI. A sample (TA-3 Waste 1) for the initial 250 CY of excavated material was collected on 05 November, and a second sample (TA-3 Waste 2) was collected on 09 November 2007. Each sample was composited from 12 roll off boxes, which contained approximately 250 CY of soil. Soil was collected with a stainless steel spoon from each roll-off, composited in a stainless steel bowl and placed into an 8-ounce laboratory-supplied glass jar. The samples were submitted to Kemron Laboratories for TCLP analysis of VOCs, SVOCs, pesticides, herbicides, metals, and PCBs, and for reactivity, corrosivity, ignitability, and paint filter.

Pre-characterization samples were collected 12 November 2007 from seven sample grids based on planned excavation area and depth. Soil samples were collected from three locations in each grid, composited and submitted to Kemron Laboratories; the samples were analyzed by TCLP for VOCs, SVOCs, pesticides, herbicides, metals, and PCBs and for reactivity, corrosivity, ignitability, and paint filter on. The analytical results for the initial sample and the pre-characterization samples are provided in Appendix E. None of the samples exceeded hazardous waste criteria.

The wastewater in the fractionation tanks was analyzed for VOCs, SVOCs, metals and pH in accordance with the industrial discharge permit for the IRA. Approximately 41,000 gallons of stormwater was discharged to the sewer following approval from the City of Memphis. The discharge request and approval are provided in Appendix C.

HEPACO was subcontracted to remove sediment in the tanks. Less than 1 inch of sediment was removed and placed in 55-gallon drums. HEPACO transported the drums to the WMI Tunica landfill on 12 February 2008. The fractionation tanks were removed from the site by Resource Services LLC on 11 February 2008.

3.3.2.4 Air Monitoring

Air monitoring for dust and organic vapors was performed during excavation activities using a handheld HAZ Dust-1100 Respiratory Particulate Air Monitor and a Mini-Rae 2000 PID for VOCs. A wind sock was installed for use in selecting air monitoring locations. Background measurements were recorded at site monitoring points prior to the onsite of excavation activities. Air monitoring equipment was calibrated daily and measurements were recorded in the field log. The majority of PID and dust readings were zero; no readings were elevated beyond safe levels as established in the HASP.

3.3.2.5 Backfill and Site Restoration

The excavation was backfilled on 25-28 January 2008 with soil fill from President's Island, located southwest of Memphis. A memorandum with site observations and sample analyses for the off-site borrow source is included in Appendix J.

The President's Island fill material is primarily fine sand with less than <3% silt and clay based on sieve analyses from the contractor. The native loess at Dunn Field is primarily silt and clay. The heterogeneity of the native loess and off-site backfill was considered potentially detrimental for the TSVE treatment in TA-3. Prior to backfilling the excavation, loess within the excavation was used to bring the TA to within 2 feet of the surrounding ground surface. The off-site backfill was then used to bring the entire excavation area to existing grade. The backfilled area was compacted using a sheep's-foot roller. Moisture content due to rain during excavation and backfill period prevented effective compaction of the excavation area. The area was graded and seeded with a rye grass seed to limit erosion.

3.3.2.6 Waste Disposal

Transportation and disposal of excavated material was performed by WMI under subcontract to HDR|e²M. Approximately 4,500 CY of crushed drums, soil and debris from TA-3 was disposed at the WMI Tunica Landfill. Waste manifests and weigh tickets are included in Appendix D.

3.3.2.7 Demobilization

After excavation and backfilling was completed, the tire cleaning pad was removed using a rubber-wheeled loader and the soil was separated from the rock. The rock was used on site to fill low spots and

the soil was placed in a roll-off. The construction equipment was cleaned on the decontamination pad at the southern boundary at TA-3 and the water was pumped into a fractionation tank for testing and disposal. The decontamination pad was removed with the stone cleaned and used on site and the soil placed in a roll-off. The liner from the decontamination pad was disposed as solid waste. Demobilization activities were completed 11 February 2008.

3.3.3 TA-1F Final Excavation

Final excavation at TA-1F was performed to remove approximately 1 CY of white powdery material containing CF above RGs. The white material, at a depth of about 9 feet, was overlain by a stormwater drain line.

3.3.3.1 Excavation

The excavation was performed on 16 February by United States Environmental Services (USES), under subcontract to HDR|e²M. The top of the 24-inch diameter storm sewer was found at a depth of 5 feet bgs and was uncovered over a length of approximately 30 feet. Six 5-foot segments of pipe above the planned excavation limits were removed. The excavation was continued until the white material was observed at a depth of approximately 9 feet bgs.

The soil excavated above the white material was stockpiled on plastic sheeting for sampling and reuse as backfill. The white material and associated soil approximately 1 foot above and below was placed in lined roll-off containers for waste characterization and disposal. No other waste materials were observed during the excavation. All the white material was excavated; approximately 44 CY of the soil and white material was placed into four roll-offs. Approximately 146 CY of overlying soil was excavated and placed on the plastic sheeting. Covers were fastened over the roll-offs as they were filled. The stockpiled soil was covered with plastic sheeting at the end of the day and the liner was secured with storm sewer rubble.

USES personnel conducted air monitoring during the excavation; a PID was used around the excavation and a dust monitor was installed downwind of the excavation. Neither instrument recorded measurements above background.

The excavation limits were surveyed by Allen & Hoshall on 17 February. The excavation limits and confirmation sample locations are shown on Figure 20.

3.3.3.2 Confirmation Samples

HDR|e²M personnel collected seven confirmation soil samples on 16 February following completion of the excavation. Two samples were collected from the central excavation floor and five samples were collected from the sidewalls, one each from the west, north, and south walls and two from the east wall. The soil collected in the excavator bucket at each sample location was screened with a PID; no readings above background (0 parts per million [ppm]) were recorded. No staining or other indication of soil contamination was observed. The samples were collected from the center of the excavator bucket; three En Core® samples were collected at each location for VOC analysis by EPA Method 8260B. A sample in a 2-ounce glass jar was also collected at each location for soil moisture determination. The samples were submitted to Microbac Laboratories in Marietta Ohio for expedited (3-day) analysis.

USES personnel collected samples from the roll-offs and from the stockpiled soil. The waste characterization sample (e2M-3) was collected by compositing soil from the four roll-off boxes in an 8-ounce jar; the sample was analyzed for RCI, and for TCLP analysis of VOCs, SVOCs, metals, pesticides and herbicides. The stockpiled soil (on-site backfill) sample (e2M-2) was collected in a laboratory-supplied 8-ounce jar by compositing, in the jar, soil from several locations in the stockpile; the sample was analyzed for VOCs by EPA Method 8260. The soil samples were hand-delivered to Cornerstone Laboratories in Memphis Tennessee.

Off-site backfill was required to completely fill the excavation. The fill material was obtained from a borrow source in an agricultural area 35 miles north of Memphis in Buck Snort, TN. HDR|e²M personnel visited the site with USES on 23 February and did not observe visible signs of contamination. USES personnel collected a composite soil sample (e2M-4) from the borrow pit and hand-delivered the sample to Cornerstone Laboratories for analysis of VOCs, SVOCs, PCBs, herbicides, pesticides and metals.

3.3.3.3 Analytical Results

The analytical results for the confirmation soil samples are summarized on Table 23, which shows results for all analytes detected above RLs in one or more samples. The complete results are provided in Appendix E.

CF was the only analyte detected above the RL. The highest concentration was 0.0172 mg/kg in the southern floor sample (Floor-S-TA1F), well below the RG of 0.917 mg/kg.

The laboratory reports for the disposal characterization sample, the on-site backfill sample and the off-site backfill sample are provided in Appendix K. The disposal characterization sample did not contain any

analytes above TCLP limits for hazardous waste. The on-site backfill sample did not contain any VOCs above RLs. The off-site backfill sample contained a few metals and SVOCs above RLs, but all concentrations were below RGs.

3.3.3.4 Site Restoration

The excavation was backfilled on 25 February. The fill was placed in one-foot lifts and compacted with the excavator bucket. The fill at the base of the storm sewer, approximately 5 feet bgs, was compacted with power tampers. The excavated sections of the storm sewer line were replaced with new 24-inch diameter concrete pipe using rubber gaskets in the slip collar connections; the connections were sealed with roofing tar. At each end, the connection between new and old pipe was coated with cement for additional leak protection. The soil around the sides of the storm sewer was compacted with power tampers and the final two feet of backfill was compacted with the excavator bucket. The area was seeded to prevent erosion.

3.3.3.5 Waste Disposal

The four roll-offs were transported on 4 March to the WMI landfill in Tunica, MS and disposed as non-hazardous waste. Waste manifests and weigh tickets are included in Appendix D.

3.3.4 TA-3 Grid Soil Samples

Following successful completion of TSVE in December 2008, soil samples were collected at TA-3 to confirm the presence and extent of the RG exceedances observed in the post-excavation confirmation samples. The sampling rationale was based on the procedure used to evaluate soil remediation in the loess TAs. The cleanup standard for soil is met if the average concentration for each analyte is below the RG, and no individual analyte in a sample exceeds the RG by a factor of 10 or more. For samples that are non-detect, the average is calculated using one-half the sample quantitation limit or RL. In the original confirmation samples, three VOCs and one SVOC were detected above ten times the RG in one or more samples, and the average concentrations for two additional SVOCs were above the RG; therefore, the standard was not met.

The additional sample borings were located on grids in the areas where initial confirmation samples exceeded the RGs. Planned sample analyses were limited to VOCs and SVOCs; the metal concentrations in the initial confirmation samples only slightly exceeded RGs and the average concentrations were well below RGs.

Allen and Hoshall marked the proposed grid sample locations based on coordinates provided by HDR|e²M on 16 February 2009. Soil samples were collected 24-25 February by EM Services using a Geoprobe Model 66 DTR direct-push rig with supervision by an HDR|e²M field geologist. At locations within the excavated area, two soil samples were collected: the first at 6 to 12 inches below the clean backfill and the second 5 feet deeper. At locations outside the original excavation footprint or where the depth of fill was less than 5 feet, samples were collected at 5, 10 and 15 feet bgs. The drill rods were advanced to the desired depth, and a 60-inch long, 1.5-inch diameter sample tube with a new Teflon® sleeve was used to collect 1 to 2 feet of soil core at the specified sample depth. Samples were collected from the soil core by the field geologist. Samples for VOC analysis were collected using three En Core® syringe-type samplers; samples for SVOC analysis were collected in a 4oz. glass jar; and samples for soil moisture analysis were collected in a 2oz. glass jar. Samples were submitted to Microbac Laboratories in Marietta, Ohio for analysis of VOCs by EPA Method SW8260B, SVOCs by EPA Method SW8270C and soil moisture.

The grid sample borings are listed on Table 24 with the depth of fill, sample depths and laboratory analyses. At TA3-1D where the depth of fill was 4.5 feet, two samples were collected at 5 and 10 feet but the sample at 15 feet was inadvertently missed. All other locations were sampled as planned. VOC analyses were performed on 12 samples from five borings around TA3-12 and SVOC analyses were performed on 103 samples from 36 borings throughout TA-3.

The final sample locations were surveyed by Allen and Hoshall on 3 March and are shown on Figure 21. Three borings (TA3-D3, TA3-D4 and TA3-D5) were shifted to the south approximately 6 feet to avoid a stormwater pipe and three other borings (TA3-A3, TA3-B3 and TA3-C3) were shifted 3 to 4 feet east to avoid the SVE conveyance line. All other samples were collected at the planned locations.

The complete analytical results for the grid soil samples are presented in Appendix E. The analytical results are summarized on Table 25 for VOCs and Table 26 for SVOCs. These tables list the results for all analytes detected above the RL in one or more samples. Tables 25 and 26 also list the RGs and PRGs. Analytes detected above an RG (or PRG where RG not established) are shown in bold type and are underlined where detected above 10 times an RG.

Three VOCs were detected above an RL in one or more samples (Table 25). No VOCs were detected above an RG.

Fifteen SVOCs were detected above an RL in one or more samples (Table 26). Five SVOCs were detected above the RGs in nine soil samples.

- Benzo(a)anthracene was detected above the RG (21.1 mg/kg) in five samples at concentrations of 45.4 to 370 mg/kg; it exceeded 10 times the RG in one sample (TA3-C4-5).
- Benzo (a) pyrene was detected above the RG (2.11 mg/kg) in nine samples at concentrations of 2.45 to 308 mg/kg; it exceeded 10 times the RG at five of those locations (TA3-B2-5, TA3-B4-5, TA3-C4-5, TA3-E4-5, and TA3-E5-5).
- Benzo (b) fluoranthene was detected above the RG (21.1 mg/kg) in five samples at concentrations of 41.2 to 359 mg/kg; it exceeded 10 times the RG in one sample (TA3-C4-5)
- Benzo (k) fluoranthene was detected above the RG (21.1 mg/kg) in one sample at a concentration of 293 mg/kg.
- Indeno (1,2,3-cd) pyrene was detected above the RG (21.1 mg/kg) in four samples at concentrations of 26.9 to 125 mg/kg.

The same five SVOCs were detected above RGs in the confirmation samples collected in January 2008. Only the shallow grid samples collected at 5 feet bgs or just below the clean fill contained SVOCs above the RG.

Review of the grid sample results showed that the cleanup standards would be met if the areas with SVOC concentrations above 10 times the RG were excavated. Three areas were identified for excavation with initial limits of excavation extending half-way to the adjacent sample location and to a depth of 8 feet. The planned excavation areas are shown on Figure 21.

3.3.5 TA-3 Final Excavation

Final excavation at TA-3 was performed to remove areas with SVOC concentrations above 10 times the RG. The three areas identified for excavation had a total area of approximately 2870 square feet and an estimated depth of 8 feet, for an estimated volume of 850 CY.

3.3.5.1 Excavation

Allen and Hoshall located and marked the corners of the three excavation areas on 4 May 2009. The final excavation was performed in three phases from 11 May to 12 June 2009 by HEPACO, under subcontract to HDR|e²M. The excavation activities were monitored in accordance with the amended HSP by a UXO technician from Power Surveying, under subcontract to HDR|e²M. All excavated soil/debris was direct-loaded into end dump trucks and transported to WMI's Tunica, MS landfill for disposal as non-hazardous

waste. WMI approved the disposal under the profile for the initial TA-3 excavation based on the previous characterization samples and the grid sample results.

3.3.5.1.1 Phase 1

Site preparations were made on 11 May. A site meeting was held by the HDR|e²M field team leader with HEPACO and Power Surveying personnel to discuss site activities and review the HSP. Erosion control measures were installed; a diversion channel was constructed around the site to limit surface water runoff into excavations, and a row of hay bales was placed west of TA-3 to capture sediment. Two soil samples were collected by HEPACO from an off-site borrow source in Byhalia, MS southeast of Memphis; HDR|e²M staff were present during sampling and observed no visible signs of contamination in the borrow area.

The first phase of excavation was conducted 12 to 14 May. The western section of TA3-3 (Figure 21) was excavated on 12 May and seven truckloads, approximately 140 CY, were sent to the landfill. Black stained soil/gravel was observed on the north side wall; much of the stained soil/gravel was similar to tar and gravel roofing material.

Excavation continued in TA3-3 on 13 May. As the eastern section of TA3-3 was excavated, crushed drums were observed below the stained soil/gravel. The drums appeared the same as observed in the initial TA-3 excavation and contained heavy hydrocarbon residue. The eastern half of the north wall of TA3-3 was extended to the north approximately 14 feet to remove the stained soil and drums. Drums were still being uncovered at the excavation limits and excavation was shifted to TA3-1 rather continuing further in TA3-3. The excavation depth at TA3-3 was 8 to 10 feet. Twenty truckloads (400 CY) were removed from TA3-3 and six truckloads (120 CY) from TA3-1.

Excavation continued in TA3-1 on 14 May. The limits of the planned excavation were reached; one crushed drum was removed near VMP-7 but no areas of significant staining were observed. The northeast corner of the TA3-3 excavation was squared off. Excavation began in TA3-2 and the planned limits of excavation were met; stained gravel was observed but no drums were uncovered. The excavation depth at TA3-1 and TA3-2 was approximately 8 feet. Six truckloads (120 CY) were removed from TA3-1, one truckload (20 CY) was removed from TA3-3 and 22 truckloads (440 CY) were removed from TA3-2.

The Phase 1 excavation limits were surveyed on 18 May 2009 by Allen and Hoshall. The limits are shown on Figure 22.

3.3.5.1.2 Phase 2

The second phase of excavation was performed on 1 to 4 June 2009 to remove the black stained gravel and crushed drums observed in TA3-2 and TA3-3. The hay bales installed on the west side of TA-3 for erosion control during the Phase 1 excavation remained in place. The hay bales in the shallow diversion channel on the south side of TA3-3 were removed as the excavation area was expanded. Three additional backfill samples were collected at the off-site borrow source in Byhalia, MS on 2 June.

Over four days, 110 truckloads (2,200 CY) of soil and debris were removed from TA3-2 and TA3-3. Most of the soil and debris was removed to a depth of 8 to 10 feet using a trackhoe. Crushed drums were not observed around the sides of the excavation and the depth of excavation in those areas was 1 to 5 feet. In addition, a small bulldozer was used to remove a thin layer of black stained gravel on the south side of the excavated area. All of the visible stained soil and crushed drums were removed. The Phase 2 excavation limits, surveyed on 8 June 2009 by Allen and Hoshall, are shown on Figure 22.

3.3.5.1.3 Phase 3

The Phase 3 excavation was performed on 12 June to remove additional soil with SVOC concentrations above the RGs. An additional backfill sample was also collected at the off-site borrow source on 12 June.

Two areas were excavated during Phase 3. Approximately 1 to 2 feet of soil was removed from the floor in the southern part of the excavation in an area of 25 by 70 feet surrounding sample locations TA3-Floor-1, TA3-Floor-2 and TA3-Floor-4. The northwest wall of the excavation adjacent to sample TA3-Wall-9 was excavated approximately 7 feet to the west over a length of 25 feet. Eight truckloads (160 CY) of soil were removed.

The final limits of excavation were surveyed by Allen and Hoshall on 16 June following Phase 3; approximately 2672 CY were excavated during the three phases. The estimated volume removed in the end dumps, 3600 CY, is greater due to lower bulk density of the excavated material. The survey plat is provided in Appendix G. The final excavation limits are shown on Figure 22.

3.3.5.2 Monitoring

Air and dust monitoring was conducted continuously during Phase 1 and 2 excavation activities by Safety, Training, Ecology, Design, Inc. (STED) using a Data Ram 4 dust monitor and a TLV 1000 PID. No air monitoring limits were exceeded. No suspected UXO was observed during the excavation.

Based on the limited excavation and the absence of suspected UXO observed during the first two phases of the final excavation, the UXO technician was not required for the final phase of excavation on 12 June. The air monitoring subcontractor was also not on site for the final phase of excavation. Air monitoring was conducted by HDR|e²M continually using a Mini REA 2000 PID; no air monitoring limits were exceeded.

3.3.5.3 Confirmation Samples

3.3.5.3.1 Phase 1

Thirty soil samples were collected from the three excavations on 14 May. The samples were collected from selected locations in accordance with the State of Michigan *Verification of Soil Remediation* Guidance Document (Michigan DNR, 1994), as referenced in the RAWP. The small site guidelines were used to determine the number of floor and wall samples: TA3-1 had eight samples, five from the sidewalls and three from the floor; TA3-2 had ten samples, six from the sidewalls and four from the floor; and TA3-3 had twelve samples, seven from the sidewalls and five from the floor.

Since stained soil/gravel was observed in TA3-2 and TA3-3, samples were collected from the stained area and from soil approximately 1 foot below the staining. Samples were also collected immediately below and between the crushed drums in TA3-3. The confirmation sample locations are listed on Table 27 and are shown on Figure 22.

All samples were analyzed for SVOCs, as planned. The two samples collected beneath crushed drums in TA3-3 (TA3-3-Wall-1 and TA3-3-Floor-1) were also analyzed for VOCs, PCBs, metals, herbicides, and pesticides. The samples were collected from the center of the excavator's bucket; personnel did not enter the excavations. Samples for VOC analysis were collected using three En Core® syringe-type samplers; samples for SVOC were collected in a 4oz. glass jar; and samples for the other analyses were collected in a second 4oz. glass jar. The samples were shipped to Microbac Laboratories in Marietta, Ohio for expedited analysis.

3.3.5.3.2 Phase 2

Nineteen soil samples were collected from the combined TA3-2/3 excavation on 5 June. A field drawing of the excavation area was prepared and the area of excavation, not including the initial TA3-2 and TA3-3 excavations, was 9600 square feet. The sample locations were selected based on the Michigan DNR small site guidelines. Since stained soil/gravel and crushed drums were not present, biased sample locations were not necessary; the required samples were spaced throughout the additional Round 2 excavation area. Nine floor and ten wall samples were collected; the confirmation sample locations are

listed on Table 27. The sample locations, surveyed by Allen and Hoshall on 8 June, are shown on Figure 22.

All samples were analyzed for SVOCs. Based on the increased size of the excavation and limited depth, the samples were collected by hand at each location and placed in a 4oz. glass jar. Samples were shipped to Microbac for expedited SVOC analysis.

3.3.5.3.3 Phase 3

Four soil samples (3 floor samples and 1 wall sample) were collected on 12 June in the same general locations as the samples targeted for excavation. The confirmation sample locations are listed on Table 27 and are shown on Figure 22. The samples were collected by hand at each location and placed in a 4oz. glass jar. Samples were shipped to Microbac for expedited SVOC analysis.

3.3.5.4 Analytical Results

The complete analytical results for the confirmation soil samples are presented in Appendix E. The analytical results are summarized on Table 28 for SVOCs and on Table 29 for EPA Target Compound List and Target Analyte (TCL/TAL) analyses. The tables list the results for all analytes detected above the RL in one or more samples. Tables 28 and 29 also list the RGs established in the Dunn Field ROD for Disposal Sites subsurface soils (ROD Table 2-21C) and for VOCs in soil (ROD Table 2-21G). PRGs, also shown on Table 29, are the lower of the industrial soil level and the soil-to-groundwater screening level (with a dilution-attenuation factor of 20). Analytes detected above an RG (or PRG where RG not established) are shown in bold type and are also underlined where detected above 10 times an RG.

3.3.5.4.1 Phase 1

Samples collected in TA3-1 were only analyzed for SVOCs. One analyte, benzo(a)pyrene, was detected above the RG (2.11 mg/kg) in two samples: TA3-1-Wall-3 at 9.77 mg/kg and TA3-1-Wall-5 at 3.0 mg/kg. The average concentration for benzo(a)pyrene in the TA3-3 samples was below the RG and thus the cleanup standard was met in this area.

Samples collected in TA3-2 were only analyzed for SVOCs. Two samples, TA3-2-Wall-1 and TA3-2-Wall-4, collected from the black stained soil/gravel contained five polycyclic aromatic hydrocarbons (PAHs) at concentrations above the RGs. Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthrene and dibenzo(a,h)anthracene were detected at more than 10 times the RG in one or both samples.

All samples collected in TA3-3 were analyzed for SVOCs and the two samples collected beneath the drums were also analyzed for TCL/TAL constituents. The two samples collected from the black stained soil/gravel contained PAHs above the RGs; TA3-3-Wall-4 contained one PAH (benzo(a)pyrene) at more than 10 times the RG and TA3-3-Wall-7 contained six PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthrene, benzo(k)fluoranthrene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene at more than 10 times the RG. No other samples contained SVOCs above the RGs. The two samples collected below the drums contained a few VOCs and metals above the RGs, but no samples exceeded the RGs by more than 10 times.

3.3.5.4.2 Phase 2

Phase 2 samples were only analyzed for SVOCs. Nine soil samples exceeded one or more of the RGs for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthrene and dibenzo(a,h)anthracene. Two samples, TA3-Floor-1 and TA3-Floor-4, exceeded the RG for benzo(a)pyrene (2.11 mg/kg) by a factor of 10 or more.

3.3.5.4.3 Phase 3

Phase 3 samples were only analyzed for SVOCs. None of the four final soil samples contained SVOCs above an RG.

Analytical results for the SVOCs detected above an RG in final samples within the complete TA-3 excavation area (October 2007 through June 2009) are shown on Table 30. For non-detect results, one-half of the RL is shown. The average concentration for each SVOC is below the RG and thus the cleanup standard was met for TA-3.

3.3.5.5 Backfill and Site Restoration

Six soil samples were collected from the borrow source by HEPACO and analyzed by Environmental Testing and Consulting, Inc. for VOCs, SVOCs, PCBs, herbicides, pesticides and metals. The number of samples was in accordance with the RAWP requirement for one sample per 500 CY of off-site backfill. The laboratory reports are provided in Appendix K. All concentrations were below RGs.

The excavation was backfilled on 30 June to 2 July. The fill was spread and compacted in 1-foot lifts using a bulldozer. The area was then seeded to prevent erosion.

3.3.5.6 Waste Disposal

The excavated soil/debris was direct-loaded into end dump trucks and transported to WMI's Tunica, MS landfill for disposal as non-hazardous waste. Approximately 3,600 CY were disposed during the final TA-3 excavation. Waste manifests and weigh tickets are included in Appendix D.

3.4 THERMAL-ENHANCED SVE TREATMENT OF LOESS

Loess deposits on Dunn Field with CVOC concentrations above RGs were treated with TSVE using ISTD. The ISTD technology heats subsurface soils via radiation and conductive heat transfer. Soil temperatures within the TAs are raised to near the boiling point of water by a 0.5-inch heating element inside the vertical heater wells. Steam is generated, contaminants are volatilized, and vapors are removed by SVE. TerraTherm, Inc. performed TSVE under subcontract to HDR|e²M. The final report prepared by TerraTherm to describe the system construction and operation is provided in Appendix L.

The TAs (TA-1 to TA-4) are shown on Figure 6. The TAs encompass approximately 1.25 acres. The treatment interval extended from 5 feet to 20 feet in TA-1A based on shallow limits of contamination. In the other areas, the treatment interval extended from 5 feet to 30 feet and incorporated the loess and underlying sandy clay. The volume of soil treated by TSVE was approximately 47,940 CY. The area and volume of each TA is shown below:

Treatment Area	Surface Area (sq. ft.)	Treatment Interval (ft., bgs)	Volume (CY)
TA-1A	3714	5-20	2063
TA-1B	1256	5-30	1163
TA-1C	6056	5-30	5607
TA-1D	400	5-30	370
TA-1E	9305	5-30	8615
TA-2	13267	5-30	12284
TA-3	6838	5-30	6330
TA-4	12432	5-30	11510

3.4.1 Mobilization and Site Preparation

HDR|e²M performed initial site preparation including rough grading of the TAs and installing thermal protection around IRA discharge and power/communications lines in TA-1C and TA-2. The lines were

excavated and hand wrapped with insulating woven fiberglass cloth several times. The trenches were then backfilled and compacted.

Terry Construction, under subcontract to TerraTherm, performed additional grading and surfaced the TAs with approximately 4 inches of limestone gravel. Following construction of the pads, Allen & Hoshall remarked the corners for each TA and marked several heater wells in each area in order for TerraTherm to layout the remaining drilling locations.

3.4.2 Thermal-Enhanced SVE System Construction

TerraTherm began mobilizing personnel and equipment to Dunn Field on 26 November 2007. Drilling for heater wells, vapor extraction wells and monitoring points began 3 December 2007 and was completed 22 February 2008. System construction began 25 February, after the shotcrete cap was placed over the TAs, and was completed 19 May 2008. The as-built layout of the TSVE system is shown on Figure 23.

3.4.2.1 Well and Monitoring Point Construction

Drilling for heaters wells, vapor extraction wells, and temperature and vapor monitoring points was performed by Boart-Longyear and M&W Drilling under subcontract to TerraTherm. All borings were advanced using direct-push to limit IDW and to reduce installation time.

A total of 367 heater-only wells were installed in a hexagonal grid pattern across the eight separate target treatment zones. The heater wells were constructed of 3-inch schedule 40 carbon steel with an inner stainless steel sleeve to protect the heater elements. The carbon steel casing and inner stainless steel sleeve were both capped at the bottom and all subsurface joints were welded to prevent vapor or steam intrusion. Once a 3.5-inch OD carbon steel heater can was lowered into the 4 to 4.5-inch OD borehole, a sand pack consisting of No. 1 Ottawa sand was placed in the annular space from the bottom of the borehole to an approximate depth of 5 feet bgs. The annular space above the sand was filled to the ground surface with high-temperature grout to prevent upward migration of heated vapors and steam and to provide a surface seal. A single ISTD heater element was placed inside a stainless steel liner and set inside each heater can. Groups of 4 to 8 heater elements were wired in series.

A total of 68 vapor extraction wells (VEWs) were installed amidst the heater wells across the site. The VEWs were constructed of 2-inch diameter, 0.010-inch slotted stainless steel well screens with schedule 40 carbon steel risers. The VEWs were completed in a 4 to 4.5-inch OD borehole with 2-inch diameter vacuum screens, 10 to 15 feet long beginning at approximately 5 feet bgs. A blank riser pipe then extends from the top of the screen to the ground surface where the connection to the aboveground vapor collection

manifold was made. A sand pack consisting of No. 1 Ottawa sand was placed in the annular space from the bottom of the borehole to an approximate depth of 5 feet bgs. The remaining annular space above the sand was filled with cement grout to the ground surface.

A total of 62 multi-level temperature monitoring points (TMPs) were installed in and around the TSVE well field. The TMPs consisted of 1.5-inch diameter schedule 40 carbon steel pipe segments with electronic temperature sensors in a common protective tube at 5-foot increments beginning at 5 feet bgs. TMPs in all 30-foot treatment intervals had 6 thermocouples to allow evaluation of vertical as well as horizontal temperature distributions. TA-1A had only 4 temperature sensors as the treatment interval was only 20 feet. A sand pack consisting of No. 1 Ottawa sand was placed in the annular space from the bottom of the borehole to an approximate depth of 5 feet bgs. The remaining annular space above the sand was filled with cement grout to the ground surface.

A total of 25 pressure monitoring points (PMPs) were installed in and around the TSVE well field to monitor vacuum/pressure in the shallow subsurface. The PMPs consisted of a 1-inch diameter by 1-foot long stainless steel 0.010-inch slot screened section, fitted to a 1-inch schedule 40 carbon steel riser section. The well screens were installed with a sand pack in boreholes that extend to 10 feet bgs. A sand pack consisting of No. 1 Ottawa sand was placed in the annular space from the bottom of the borehole to an approximate depth of 5 feet bgs. The remaining annular space above the sand was filled with cement grout to the ground surface.

Following installation of the wells and monitoring points, a two inch layer of Shotcrete was applied over all of the TAs. Shotcrete has high strength, durability, low permeability and excellent bonding properties. It was utilized as a surface cover to limit water infiltration into the target TAs and as a surface seal to improve vapor capture.

3.4.2.2 SVE System and Treatment Compound

The Air Quality Control (AQC) system treated the vapor stream from the TAs. The AQC system consisted of vacuum blowers, heat exchangers, moisture knockout tanks, a cooling tower, transfer pumps, and liquid and vapor-phase GAC vessels. The AQC was designed to handle a combined flow of 1,500 scfm from the well field (800 scfm of steam and 700 scfm of vapor) at approximately 8 in. Hg. The vacuum was generated by two rotary lobe positive displacement blower, with one blower operated and the other in reserve. Condensate was separated on the upstream end of the AQC system and treated using two 250-pound liquid phase GAC vessels. The condensate treatment portion of the AQC system was designed to handle a flow rate of approximately 7 gallons per minute (gpm). Treated condensate was approved by

the City of Memphis for discharge under the existing IRA discharge agreement. The AQC equipment was installed near TA-2 with conveyance piping running from the approximate center of the well field manifold pipe to the treatment equipment, as shown on Figure 24.

The individual VEWs were connected to header pipes with a single header conveying vapor from each of the four TAs (and sub-areas in TA-1) to the loess SVE treatment compound. Extracted vapors were conveyed from the well field manifolds to the AQC system in fiberglass conveyance piping placed on adjustable supports to limit low points where condensate would collect.

Vapors and entrained water extracted from the well field were passed through a heat exchanger to reduce the temperature of the extracted fluid stream with the objective to both condense the steam and to increase the efficiency of the downstream water and vapor treatment systems.

The cooled vapor stream was drawn through a liquid knockout pot to remove condensate and entrained liquid droplets. Although the primary function of the knockout pot was to remove condensate and liquid droplets, it also served to remove entrained particulate matter.

Vapors were drawn from the knockout pot by the system's vacuum blower, which provided the motive vacuum for the TSVE well field. Vapor discharged from the blower passed through a second heat exchanger to decrease the saturation of the vapor stream before entering carbon adsorption beds.

Vapors entered a carbon bed trailer for final treatment prior to discharging to atmosphere. The trailer held four GAC vessels, two 3,600-pound units and two 2,700-pound units. The vapor passed through two GAC vessels in series with the other two vessels available for backup. The treated vapors were exhausted to the atmosphere.

Condensate was pumped from the knockout pot to two 250-pound liquid-phase GAC vessels to treat the condensate prior to discharge. Due to significant changes in pH, an equalization tank was added to the discharge stream and a 25% sodium hydroxide solution was introduced by a metering pump to balance the pH to acceptable discharge levels. Samples for laboratory analyses were collected at various locations and the analytical results are included in the TerraTherm report attached as Appendix L.

3.4.2.3 Electrical Power

Three transformers installed by MLGW provided the main power source. TA-1 was served by a 3000-kVA unit; TA-2 area was served by a 1500-kVA unit; and TA-3 and TA-4 areas were served by a 1500-kVA unit. The transformers were removed by MLGW after TSVE operations were completed.

3.4.2.4 Site Security

Security measures at Dunn Field were increased following theft of 300 feet of copper cable during site construction and before power transformers were installed.

The perimeter fence enclosing Dunn Field was augmented by 8-foot high chain link fences around each TA topped with three strands of barbed wire. Ten double-swing 10-foot wide gates were installed to allow personnel and equipment access. Electrical hazard warning signs were installed outside of the main perimeter fence and on each of the TA fences. Four light poles were installed to illuminate the TAs at night. A security guard was on-site every night and patrolled the area in a golf cart as an additional security measure.

The entrance gate to Dunn Field and the gates to the TAs were kept locked when TerraTherm or HDR|e²M staff were not working in the area. All equipment was inspected daily and the perimeter fences were checked twice daily.

3.4.3 TSVE Operations

System startup and testing of the well field and process equipment began on 19 May and full system operations began 27 May 2008. The TSVE system included the following design features: average target treatment temperature of 90-100°C; average 17-foot spacing between heater wells; vacuum extraction to capture and remove vapors from the treatment zone; and, treatment of collected vapors (GAC). The system operated continuously from 27 May until the heaters were shutdown in the final TA on 20 November for a total of 177 heating days. The vapor extraction system removed approximately 800 scfm of air and steam during operations and was shut down on 4 December.

TerraTherm submitted weekly progress reports to summarize system construction and operations activities following mobilization to the site on 26 November 2007. The weekly reports provided project status during construction with the addition of a treatment summary section during operations. The weekly progress reports are included in the TerraTherm report in Appendix L.

3.4.3.1 Power Usage

The energy required to be injected into the subsurface through the heater wells was estimated at 9.05 million kWh of electricity to boil approximately 25% of the pore water and to heat the subsurface to 90-100°C. An additional 0.2 million kWh was estimated to be required for the effluent treatment system, for a total estimated energy usage of 9.25 million kWh. The power input reached a level between 3,000 to 4,500 kW after 10 days of operation, and steam extraction became significant after 4 weeks of heating. By

the end of operations, 10.6 million kWh of electric power had been delivered, and 3.8 million kWh of energy in the form of steam had been removed, corresponding to 36% of the injected energy. The energy delivered corresponded to 221 kWh per CY of soil within the treatment zone. The additional 1.35 million kWh of power used over the original estimate was due to higher than predicted pore water/infiltration in the TAs.

3.4.3.2 Temperature and Pressure Monitoring

The TMPs were installed several feet from heater wells to provide measurements representative of soil throughout the treatment areas. PMPs were installed to verify that vacuum influence is established and maintained throughout the TAs.

Temperature measurements were monitored daily and recorded weekly. The wireless data collection units were not operational periodically and manual data collection was required to supplement the wireless data collection. Pressure measurements were recorded daily. Quick disconnect fittings were attached to a Dwyer digital manometer and plugged into each individual PMP.

Average temperature curves for each TA are shown on Figure 25. The temperatures are representative of the central locations between heaters at 5-foot intervals at depths of 5 feet to 30 feet bgs. Detailed temperature data and a table of pressure measurements at each PMP are included in the TerraTherm report in Appendix L.

Areas where soil temperature did not rise as rapidly as planned were addressed by increasing heater temperatures where possible. Vacuum was balanced on a regular basis based on monitoring results. The intent was to keep all PMPs below positive pressure. Vacuum adjustments to individual areas were balanced daily by throttling the ball valves on each of the vacuum extraction wells to allow more or less vacuum as required to redistribute vacuum to the individual collection points. The vacuum rate on the blower was also adjusted periodically to improve system performance.

3.4.3.3 Vapor Monitoring

Vapor monitoring of the thermal treatment system included field measurements and laboratory analyses. PID readings were collected six days per week at the vapor treatment area. Measurements were made at three locations by TerraTherm to evaluate mass removal and AQC operations: the influent to the GAC treatment vessels; between the two operating carbon treatment vessels; and at the vapor discharge. Additional PID measurements were made at eight locations by HDR|e²M to evaluate mass removal from the TAs: the well field influent prior to any treatment and the headers from the TAs (TA-1A, TA-1B, TA-

1C/D, TA-1E, TA-2, TA-3 and TA-4). Daily readings were collected at the well field influent; readings were initially collected bi-weekly at the headers and increased to every other day on 12 September.

At the well field influent and the treatment area headers, a vacuum pump was used to overcome the vacuum of the SVE system. The vacuum pump was connected to the individual sampling ports with short Teflon tubing and allowed to purge for 2 to 3 minutes; the sample was then collected from the outflow of the vacuum pump. At the three locations in the vapor treatment system, a vacuum pump was not required. A short piece of Teflon tubing was connected to the sampling port and allowed to purge for 2 to 3 minutes. The samples for PID readings were collected in a 1-liter dedicated Tedlar sample bag. After filling, the bag was connected directly to the PID through a moisture trap and the peak value was recorded. The PID was calibrated daily to a 100 ppmV isobutylene standard. The PID measurements are shown on Table 31. Trend plots of the measurements are shown on Figure 26 for the TA headers and the well field influent.

Vapor samples were collected monthly at the influent to the GAC treatment vessels and at the vapor discharge; four additional weekly samples were collected at the influent in July to evaluate variation in CVOC concentrations. The results were used with the daily PID readings to estimate CVOC mass removed in the vapor stream and compliance with the permit limits for the vapor discharge. Samples were collected in 6-liter Summa canisters and submitted to CON-TEST Analytical Laboratory in East Longmeadow, Massachusetts for VOC analysis using EPA Method TO-15. Influent samples were collected on May 30, June 18, July 1, July 8, July 17, July 23, August 22, September 26, and December 1, 2008.

The analytical results for the AQC vapor samples are summarized on Table 32, which shows results for all analytes detected above RLs in one or more samples. The laboratory reports are provided in the TerraTherm report in Appendix L.

Bi-weekly vapor samples were collected by HDR|e²M from 14 June to 16 October 2008 at the well field influent and the individual TAs to evaluate mass removal. Samples were collected in 6-liter Summa canisters and submitted to Columbia Analytical Services in Simi Valley, California for VOC analysis by EPA Method TO-15. The analytical results for the well field and TA vapor samples are summarized on Table 33, which shows results for all analytes detected above RLs in one or more samples. The complete results are provided in Appendix E.

3.4.3.4 Condensate Monitoring

Condensate was generated at 0 to 10.8 gpm during the course of TSVE operations with approximately 800,000 gallons of condensate discharged to the City of Memphis sewer under the IRA discharge permit. Samples were collected at the influent to the liquid-phase GAC vessels to estimate CVOC mass removal in the condensate, between the two carbon vessels to monitor GAC adsorption, and at the GAC effluent to comply with the discharge permit.

Approval to discharge condensate from the TSVE system under the existing IRA discharge agreement was granted by the City of Memphis on 7 September 2007. The approval was based on condensate treatment with liquid-phase GAC prior to discharge and quarterly samples. The treated condensate is pumped to a 500-gallon storage tank. The storage tank also receives non-contact cooling water through blow-down water from a cooling tower utilized by the TSVE system. As the tank approaches capacity, the water is discharged via a single conveyance line to the City of Memphis sewer system through the existing discharge line utilized for the IRA system at Dunn Field.

Condensate samples were collected by TerraTherm at the discharge from the liquid-phase GAC vessels and analyzed for metals, VOCs, SVOCs, and pH by Environmental Testing & Consulting of Memphis. The analytical results were submitted to the City of Memphis in accordance with the discharge approval. The submittals are included in Appendix C. The laboratory reports are provided in the TerraTherm report in Appendix L.

The first two samples, collected 19 June and 25 June 2008, exceeded permit discharge limits for one day and/or monthly average maximums for several constituents. The pH was also below permit limits for the 25 June 2008 sample. The exceedances were attributed to breakthrough of the liquid phase GAC vessels. The carbon in the GAC vessels was replaced 8 August 2008. An additional sample location was added on 19 August 2008 at the effluent from the 500-gallon holding tank containing treated condensate from the GAC vessels and non-contact cooling water from the TSVE cooling tower; this location is more representative of the discharges to the sewer. As a temporary measure, lime chips were added to the 500-gallon holding tank to raise the pH of the water. On 19 August 2008, a permanent caustic injection system was brought online to keep the pH within permit limits. Field pH readings were conducted between laboratory sample events to monitor pH.

Condensate samples were collected by HDR|e²M at the influent to the liquid-phase GAC vessels and analyzed for VOCs by Microbac. The analytical results are summarized on Table 34, which shows results for all analytes detected above RLs in one or more samples. The complete results are provided in

Appendix E. Total CVOC concentrations in the influent samples ranged from 190 to 28,509 µg/L. No free-phase product was recovered in the condensate.

3.4.3.5 System Modifications

TSVE system operations were relatively consistent throughout the operational period. As the project progressed, certain areas required additional heating to achieve target temperatures, and heater temperatures were increased as necessary. Some heaters in TA-1 were ramped up too high, causing heater and circuit failures. Heaters were replaced and circuits were repaired in a timely fashion and there were no extended periods of down-time. Achieving target temperature in TA-1C was difficult due to higher moisture content from standing water on the adjacent railroad right-of-way. This problem was addressed by installing a drop inlet to improve site drainage, increasing heater temperatures to the maximum safe operating range, increasing soil vapor movement with additional VEWs and introducing compressed air.

A steam release in TA-4 occurred during the night of 10 June. The ground had subsided beneath the shotcrete cover near a heater well and water from a recent storm collected beneath the cover and vented as steam. The security guard mistakenly thought the steam was smoke from a fire and contacted the MFD. Following discussion with the HDR|e²M site manager, the MFD hazardous materials team monitored the vapor and determined it was non-hazardous. The area was backfilled with sand and capped with concrete. Additional venting occurred on 4 September when the vacuum system was temporarily shut down for GAC change out. A makeshift hood was placed over the vent and connected to the vacuum extraction system. The area was backfilled and re-capped, and a shallow VEW was installed in the area.

Additional VEWs were installed near locations with high CVOC concentrations in the confirmation soil samples (Section 3.4.4). The Round 2 soil sample from loess soil boring (LSB)-14 at 29 to 30 feet bgs had a strong odor and a PID reading of 1000 ppm. Following sample collection, TerraTherm installed a 1.5-inch diameter VEW with the screen at 28 to 30 feet bgs. Sand was placed around the screen and high temperature grout was used to seal the VEW.

During Round 3 soil sampling, VEWs were installed in each of the borings where Round 2 soil samples exceeded the RGs by a factor of 10 or more (LSB-4, LSB-5, LSB-14, LSB-23, LSB-25 and LSB-30). Following Round 3 sampling, the selected borings were drilled to a depth of 30 feet bgs and reamed to 3.5-inch diameter (LSB-4 hit refusal at 20 feet). HDR|e²M installed a 2-inch diameter VEW with a 5-foot screen at varying depths based on sample results. Filter sand was placed from boring termination to a depth of 5 feet bgs and high temperature grout was used to seal the VEW from 0 to 5 feet bgs.

Based on the high CVOC concentrations in Round 4 samples at LSB-4-10-11, LSB-23-28-29 and LSB-30-11-12, VEWs were installed approximately 5 feet north and south of each of these borings. High temperature grout was used to seal the VEWs above the sand pack.

3.4.3.6 System Shutdown

The heater wells in individual TAs were shutdown as confirmation samples demonstrated that RAOs had been met. The RGs were met in TA-1D in the interim soil samples and the heater wells in that area were shut-down on 19 September. The RGs were met in TA-1A, TA-1B and TA-3 in the Round 2 samples, but TSVE treatment was continued based on vapor sample results and PID readings. The RGs were met in TA-2 in the Round 3 samples. The heater wells were shut down in TA-1A, TA-1B and TA-2 and TA-3 on 9 October. The RGs were met in TA-1E in the Round 4 samples, but TSVE treatment was continued based on vapor sample results and PID readings. The vapor extraction system was re-balanced on 29 October; vapor extraction was shutdown in TA-1A and reduced in TA-1B, TA-2 and TA-3 in order to increase vapor extraction in TA-1C, TA-1E and TA-4.

The heater wells were shut down in TA-1E on 6 November and in TA-1C and TA-4 on 20 November. The vapor extraction system was shutdown in TA-1B, TA-1D, TA-2 and TA-4 on 7 November, but operated in TA-1C, TA-1E and TA-4 through 4 December.

3.4.3.7 Mass Removal

The CVOC mass removed by the TSVE system was estimated from daily measurements of the vapor flow rate and the PID reading at the GAC influent. The PID data were calibrated using analytical results for the periodic vapor samples, with response factors adjusted over time as the vapor composition changed. At the completion of TSVE operations, concentrations in the extracted vapors were below 30 ppmV, and an estimated total of 12,500 pounds of VOCs had been removed in the vapor phase. Additional information on mass removal estimates is provided in the TerraTherm report in Appendix L. PID readings and estimated cumulative CVOC mass removal in vapor is shown on Figure 27.

CVOC mass in condensate was calculated using total VOC concentrations from laboratory samples and condensate volumes recorded by a totalizer between sample events. An estimated 83 pounds of CVOCs were removed from the loess formation via the condensate.

3.4.4 Soil Confirmation Samples

The planned confirmation sampling program consisted of an interim sampling event during TSVE treatment, a Round 2 sampling event after the planned treatment period, and a final sampling event, if

necessary, after additional treatment and cool-down. The interim confirmation soil sampling was to be performed when monitoring indicated soil temperatures in the TAs at 90 °C and vapor concentrations at asymptotic levels below 100 ppm based on PID measurements; interim sampling was tentatively scheduled for Day 80 to 90 of TSVE operations. Following the Round 2 sampling event and discussions at the October 2008 BCT meeting, the confirmation sampling program was revised to include additional soil sampling events prior to system shut-down. Since the majority of the Round 2 samples were below RGs, it was estimated that the RGs could be met through extended treatment with verification through additional confirmation samples prior to the cool-down period.

After each sample event, the sample results were compared to the RGs. The RAO for the loess required the average concentration in a TA (defined as TA-1, TA-2, TA-3 and TA-4) for each CVOC be below the RG, and no individual sample result exceed the RG by a factor of 10 or more. For samples that are non-detect, the average was calculated using one-half the sample quantitation limit (laboratory RL).

Forty-seven confirmation soil sample locations were selected based on the highest CVOC concentrations from previous soil samples or MIP results. The RD had identified 27 sample locations and depths, and additional locations were selected in the RAWP to improve spatial distribution within the TAs and vertical distribution within the treatment interval. Although the treatment interval was generally 5 to 30 feet bgs, CVOC concentrations exceeded RGs in three RDI borings (32B in TA-1 and 3D and 3E in TA-3) at depths above 5 feet bgs; samples were collected at a depth of 2 to 3 feet bgs at these locations. The confirmation sample locations and depths are listed on Table 35. The confirmation boring locations are shown on Figure 28.

During each phase, samples were collected in accordance with the "Hot Soil Sampling Procedure" from the RAWP using direct-push sampling. Soil cores were collected in a Teflon disposable sleeve, capped at both ends, cooled in ice and sampled using En Core® samplers. At each sample depth, three En Core®'s were collected for VOC analysis and one 2-ounce glass jar for soil moisture. At the end of each day, soil borings were grouted to the surface using a high temperature grout mix. Samples were sent to Microbac Laboratories in Marietta, Ohio, for expedited analysis of VOCs by EPA Method 8260B. Following review of the results, TSVE operations were evaluated to focus additional treatment (soil heating and vapor extraction) on areas where RGs were exceeded by a factor of 10 or more. After the interim sampling event, repeat samples were collected at locations where RGs were exceeded. The repeat samples were collected from borings drilled within a few feet of the previous location and at the same depth.

Interim soil samples were collected on 18 to 20 August 2008, with 30 soil samples from 22 locations. Although the interim sampling criterion for PID measurements had not been met and the soil temperature criterion was met in TA-1D and TA-1E only, the interim sampling event was conducted in order to evaluate system performance to date and to provide a baseline to determine whether TSVE treatment should continue beyond the planned 105-day treatment period. Only a subset of the 47 confirmation samples was collected. All of the planned samples were collected in TA-1B, TA-1D and TA-1E; in the other areas, selected samples were collected with an emphasis on locations with higher pre-treatment CVOC concentrations and with samples at multiple depths. Ten samples had no CVOCs detected above standard RLs and three samples had CVOCs reported at less than 10% of the applicable RG. Nine samples exceeded the RG for one or more CVOCs by a factor of 10 or more.

Round 2 soil samples were collected 10 to 12 September; 34 soil samples were collected from 27 soil borings. Samples were collected at all locations and depths specified in the RAWP, except at the 13 interim soil samples that were well below RGs. Thirteen samples had no CVOCs detected above standard RLs and seven samples had no CVOCs reported above the RGs. Eight Round 2 samples exceeded the RG for one or more CVOCs by a factor of 10 or more.

Round 3 soil samples were collected 2 October; 12 soil samples were collected from 8 soil borings. Three samples had no CVOCs detected above standard RLs and two samples had no CVOCs reported above the RGs. Six Round 3 samples exceeded the RG for one or more CVOCs by a factor of 10 or more.

Round 4 soil samples were collected 20 October; 7 soil samples were collected from 5 soil borings. One sample had no CVOCs detected above standard RLs and two samples had no CVOCs reported above the RGs. One sample had CVOCs detected above an RG and three samples exceeded the RG for one or more CVOCs by a factor of 10 or more.

The final confirmation samples were collected 11 November (Round 5) and 17 November (Round 6). Four soil samples were collected from three borings during Round 5 and one soil sample was collected during Round 6.

The analytical results for all TSVE soil confirmation samples are summarized on Table 36, which lists the results for the primary CVOCs and for other VOC analytes detected above the RL in one or more samples. The complete analytical results are provided in Appendix E. None of the final samples at any of the 47 sample locations identified in the RAWP exceed an RG by a factor of 10 or more, and the average concentration for each of the primary CVOCs in TA-1, TA-2, TA-3 and TA-4 is below the RG. Therefore, the RAO for the TSVE TAs has been met.

3.4.5 Demobilization

Decommissioning and demobilization was performed as TAs met the RAO. The first area to be decommissioned was TA-1D. This was the smallest of all the TAs and also had the tightest heater spacing. It achieved target goals in the first week of September 2008. Decommissioning of the remaining areas was sequenced as follows: TA-1A, TA-1B TA-2 and TA-3 all achieved goals during the first week of October 2008. The last TAs to achieve goals were TA-1C and TA-4. Both of these areas were heated until November 20, 2008 when the final confirmation samples were determined to meet RGs. At that point, all remaining heater circuits were de-energized and site-wide decommissioning of heaters, wiring, and temperature monitoring equipment began. The vapor extraction system continued to operate until December 4, 2008. The vapor extraction equipment and vapor conveyance piping was then broken down, decontaminated, and demobilized.

The heater cans, vapor extraction points, TMPs and PMPs were pulled from the subsurface using an overhead crane, where possible. Any that could not be removed were cut off at grade. All holes were filled with native soil, sand or bentonite chips and the top 10 feet were filled with bentonite-cement grout for solid surface adherence and to avoid future settling. Most of the equipment was shipped off site; however, 3-inch steel pipe was temporarily left on site for shipment to another TerraTherm project site in Tennessee.

On 12 February 2009, TerraTherm demobilized from Dunn Field. Terry Construction performed rough grading to provide adequate drainage and to return the site to a condition substantially similar to that at the start of remediation activities; restoration was not completed until April 2009 due to wet conditions. The shotcrete covers over the TAs were left in place.

3.4.6 IDW Management

The generated waste was classified as either non-investigative waste or IDW. Non-investigative waste, such as packaging materials, personal protective equipment (PPE), disposable sampling supplies, litter and construction debris, and other inert refuse, was collected, containerized, and transported to a designated collection bin for disposal at a municipal landfill.

IDW included soil from installation of heater wells and confirmation soil sampling. TerraTherm's subcontract drillers were to install the heater wells with direct-push rigs generating little or no soil waste. The excess soil was placed in a roll-off and disposed by the drilling company. Confirmation soil samples

were collected by direct-push methods with no cuttings. The residual soil from the sample cores were spread on Dunn Field.

3.5 GROUNDWATER MONITORING

3.5.1 IRA Monitoring

Semiannual groundwater samples are collected on and around Dunn Field for IRA system monitoring. During the two monitoring events in 2007, groundwater samples were collected from 2 MWs and 11 RWs on Dunn Field and 48 wells in the surrounding area. In 2008, the number of wells was expanded to include wells installed during the RDI; samples were collected from 26 MWs and 11 RWs on Dunn Field and 47 wells in the surrounding area. The sample results show a significant reduction in groundwater CVOC concentrations from the Source Areas RA. The total CVOC concentration contours for the four sample events are shown on Figure 29.

3.5.2 Interim Groundwater Monitoring

Interim groundwater sampling was performed to evaluate the impact of FSVE and TSVE operations on the CVOC concentrations in groundwater.

3.5.2.1 Groundwater Sampling

The interim groundwater samples were collected from the monitoring wells remaining from the baseline event in May 2007 (Section 3.1.3). Groundwater levels were measured in the baseline wells and other wells at Dunn Field on 15 August 2008. Measurements were made using Solinst Model 101 water level meters with electronic sensors and tapes graduated in 0.01-foot increments. The water level measurements are shown on Table 37.

HDR/e²M collected interim groundwater samples from 26 designated MWs on 18 to 20 August 2008. The well locations are shown on Figure 30.

Groundwater samples were collected using portable bladder pumps and low-flow purging methods. Dedicated Teflon® bladders and Teflon®-lined polyethylene tubing were used for each of these wells. The pumping rate at each well was set such that the water levels would not decline more than 1.2 inches (0.1 foot). Water quality parameters were measured at approximately 5 to 10 minute intervals during purging using a flow-through cell with a Horiba U-22XD or a YSI6500. The units were calibrated each morning prior to sampling, and if abnormal readings were observed during the day, the instruments were recalibrated in the field. All measurements were recorded on the field sampling forms.

In 14 wells (MW-132, MW-172, MW-175, MW-178, MW-179, MW-187, MW-221, MW-222, MW-223, MW-224, MW-225, MW-226, MW-227, and MW-228), the Teflon®-lined polyethylene tubing was run through an ice bath to lower the temperature of the water so as to not damage the field instruments. The highest influent temperature recorded was 54.1 degrees centigrade (deg C) in MW-178. The temperatures at sampling for wells cooled with ice ranged from a high of 38.8 deg C in MW-222 to a low of 19.7 deg C in MW-179.

Purging continued at each well for up to two hours in order to meet the stabilization criteria: three successive readings within 0.1 for pH, 10 millivolts for ORP, 3 percent for specific conductance, 10 percent for DO and <20 NTU for turbidity. Temperature was recorded but was not used as a stabilization parameter. Samples were collected when stabilization criteria were met or the field team leader approved the variance from the criteria. The final stabilization measurements are shown on Table 38. The following samples were collected without meeting the stabilization criteria:

- Samples were collected from MW-10 and MW-68 with turbidity readings of 83.4 and 21.5 NTUs, respectively. Filtered and unfiltered samples from MW-10 were submitted for metals and TOC analyses.

Samples were sent to Microbac for laboratory analysis. The samples were analyzed for VOCs by method 8260B, anions by method E300.0, alkalinity by method E310.2, sulfide by method SW9030, total organic carbon by method SW9060, metals by method SW6010B, and dissolved gasses by method RSK 175, in accordance with the RAWP.

Purge water from the interim groundwater sampling event was containerized and discharged with the TSVE condensate following treatment through liquid carbon vessels.

3.5.2.2 Groundwater Analytical Results

Groundwater samples were collected from 26 MWs during the interim sampling event. The complete analytical results are provided in Appendix E for VOCs and for MNA parameters (dissolved gasses, TOC, sulfide, nitrate, nitrite, sulfate, bromide, chloride, metals, alkalinity, ferrous iron and carbon dioxide). The VOC analyses are summarized on Table 39, which includes the results for all VOCs detected above the RL in one or more samples. The results are grouped by primary CVOCs, which are commonly detected in groundwater at Dunn Field, and other VOCs. Total CVOC concentrations at each well are shown on Figure 30.

Ten VOCs were detected above RLs in the October 2008 samples. The analytical results for the most commonly detected CVOCs are summarized below:

Analyte	No. of Wells above RL	Maximum Concentration (µg/L)
Carbon Tetrachloride	5	6.35
Chloroform	9	33.4
cis-1,2-Dichloroethene	5	23.1
1,1,2,2-Tetrachloroethane	11	15.4
Tetrachloroethene	9	61.2
Trichloroethene	15	44.2

The highest total CVOC concentration for the wells in the Source Areas was 92 µg/L in MW-15. CVOC concentrations do not exceed 50 µg/L for any single constituent, except in MW-07, which contained PCE at 61.2 µg/L. MW-07 is on the north boundary of Dunn Field and upgradient of TA-1; the groundwater concentrations in MW-07 are due to the Northeast plume, which has an off-site source. The 50 µg/L concentration limit is the objective for the Source Areas groundwater remedy, with further reduction to Maximum Contaminant Levels (MCLs) to be achieved by the Off Depot remedy.

The groundwater analytical data demonstrate continued reduction in CVOC concentrations as a result of the Source Areas RA. Trend plots are provided in Appendix M for all sampled wells with one or more CVOCs detected above maximum contaminant levels in this or previous sample events.

3.5.3 Post-Thermal SVE Groundwater Monitoring

Additional groundwater MWs and at least two quarters of groundwater monitoring were planned following completion of TSVE treatment in the loess. The additional wells were intended to aid delineation of the 1,000 µg/L total CVOCs isopleths in order to finalize the ZVI injection locations. Based on the latest groundwater results, there is not a continuing source of CVOCs within the aquifer. The additional well installation and post-treatment groundwater monitoring described in the RAWP are not necessary. Further groundwater monitoring on Dunn Field will be performed through LTM as described in the Off Depot RD.

3.6 ZVI INJECTION

ZVI injection was included in the selected groundwater remedy to treat CVOCs in the most contaminated part of the groundwater plume. The ROD Amendment clarified that ZVI injections would be based on potential source areas with groundwater total CVOC concentrations above 1,000 µg/L. CVOC concentrations in MWs on Dunn Field are well below 1,000 µg/L demonstrating there is not a continuing source of CVOCs within the aquifer and ZVI injections are not necessary.

4.0 CHRONOLOGY OF EVENTS

Date	Event
Decision Documents and 5-Year Reviews	
1 May 1996	Interim ROD final.
17 January 2003	First 5-Year Review final
12 April 2004	Dunn Field ROD final.
22 January 2008	Second 5-Year Review final
19 March 2009	Dunn Field ROD Amendment final
IRA	
August 1997	IRA RD final
1 May 1998	Groundwater discharge permit with City of Memphis approved
October 1998	Phase 1 well installation and system construction completed
November 1998	IRA System Operations begin
March 2001	Phase 2 well installation and system construction completed
1999 and 2000	Quarterly groundwater monitoring
2002 to present	Semiannual groundwater monitoring
9 June 2008	RW-5 through RW-9 shut down
23 January 2009	RW-1 through RW-4 shut down
24 June 2009	BCT members concurred on abandonment of IRA system.
October 2009	Final semiannual groundwater monitoring under IRA. LTM to be performed as part of Off Depot RA
Late 2009	Proper abandonment of recovery wells and demolition/removal of IRA system components.

Date	Event
FSVE RA	
13 April 2007	Source Areas RD final
3 July 2007	FSVE RAWP final
5 April 2007	Location survey for MWs, SVE wells and VMPs
16-19 April 2007	Soil rubble pile removed from TA-3
15 May 2007	Notification of FSVE mobilization
24 April – 4 May 2007	Installation of new replacement MWs
14-21 May 2007	Baseline groundwater sampling
15 May – 14 June 2007	Drilling of SVE wells and VMPs; Baseline soil sampling
June 2007	Construction of SVE compound
June 2007	Trenching/installation of conveyance piping
19 July 2007	FSVE System Delivered to Dunn Field
24 – 25 July 2007	Baseline vapor sampling at SVE wells and VMPs
25-26 July 2007	Start-up testing of FSVE System.
27 July 2007	FSVE Operations begin
1-13 August 2007	FSVE shutdown for GAC change out
18 October 2007	Y1Q1 vapor samples
17 January 2008	Y1Q2 vapor samples
20 March – 18 April 2008	Rebound Test
24 April 2008	Y1Q3 vapor samples
16 July 2008	Y1Q4 vapor samples

Date	Event
17-18 October 2008	Y2Q1 vapor samples
19 January 2009	Y2Q2 vapor samples
Ongoing	FSVE Operations
Loess/Groundwater RA	
2 October 2007	Loess/Groundwater RAWP preliminary approval for construction
7 July 2008	Loess/Groundwater RAWP final
9-25 September 2007	Perimeter fence replaced and new access road constructed
22 October 2007	Mobilization for ET&D and TSVE site preparation
25-26 October 2007	Test pits excavated at TA-3
27 October 2007	Excavation begun at TA-3
November 2007	Thermal protection installed on IRA piping in loess TAs
6-7 November 2007	Round 1 excavation and confirmation samples at TA-1F
26 November 2007	TerraTherm mobilizes to Dunn Field for TSVE
28 November 2007	TA-3 excavation halted for identification of glass ampoules
3 December 2007 – 22 February 2008	Drilling for TSVE installation
5-7 December 2007	Round 2 Excavation and exploratory trench at TA-1F
18 December 2007	Notification of Loess/Groundwater mobilization
15 December 2007	TA-1F excavation backfilled
13 December 2007	TA-3 excavation halted due to ordnance casing
20 December 2007	HASP addendum for UXO at TA-3
8 January 2008	Initial excavation at TA-3 completed

Date	Event
25-28 January 2008	Initial TA-3 excavation backfilled
25 February – 19 May 2008	TSVE piping and system construction
19-26 May 2008	Start-up testing of TSVE System.
27 May 2008	TSVE Operations begin
18-20 August 2008	Interim soil and groundwater sampling
10-12 September 2008	Round 2 soil sampling
19 September 2008	Heater wells shutdown in TA-1D
2 October 2008	Round 3 soil sampling
9 October 2008	Heater wells shutdown in TA-1A, -1B, -2 and -3
20 October 2008	Round 4 soil sampling
29 October 2008	Vacuum extraction system shutdown in TA-1A
6 November 2008	Heater wells shutdown in TA-1E
7 November 2008	Vacuum extraction system shutdown in TA-1B, -1D, -2 and -4
11 November 2008	Round 5 soil sampling
17 November 2008	Round 6 soil sampling
20 November 2008	Heater wells shutdown in TA-1C, -1E and -4
4 December 2008	Vacuum extraction system shutdown in TA-1C, -1E and -4
12 February 2009	TSVE equipment demobilization complete
16 February 2009	Final excavation at TA-1F
25 February 2009	Backfill and site restoration at TA-1F
24-25 February 2009	Grid soil sampling at TA-3

Date	Event
April 2009	Site restoration completed for TSVE
11 May – 12 June 2009	Final excavation at TA-3
30 June – 2 July 2009	Backfill and site restoration at TA-3
Land Use Controls	
October 2008	Dunn Field LUCIP approved as part of the Off Depot RD
11 June 2009	Notice of Land Use Restriction for Dunn Field recorded
8 – 10 July 2009	Initial Annual LUC Inspection performed
Continuing	Annual LUC Inspections

5.0 PERFORMANCE STANDARDS AND QUALITY CONTROL

5.1 REMEDY PERFORMANCE

The overall performance of the Source Areas RA has been excellent. The performance for each component of the Source Areas RA is described below.

5.1.1 IRA

All RWs are currently offline. Groundwater sample results from the April and October 2008 IRA semiannual monitoring events (HDR/e²M, 2009a) demonstrated that the Source Areas RA was having a significant impact in reducing CVOC concentrations in groundwater. CVOC concentrations in most monitoring wells on Dunn Field did not exceed 50 µg/L for any single CVOC; this concentration limit is the objective for the Source Areas groundwater remedy, with further reduction to MCLs to be achieved by the Off Depot remedy. Based on review of groundwater elevation contours, areas with concentrations greater than 50 µg/L, at a few locations in the south-central area of Dunn Field, would pass through the active component of the Off Depot groundwater remedy, which is expected to be on-line in Fall 2009. RW-5 through RW-9 were shutdown on 9 June 2008 and RW-1 through RW-4 were shutdown on 23 January 2009. Following review of analytical results for the semiannual samples collected in April 2009, the BCT agreed to removal of the IRA system with proper abandonment of the RWs.

5.1.2 Fluvial SVE

Performance of the FSVE system is evaluated based on system operating parameters and performance monitoring. From system start-up in July 2007 through January 2009, the system was operating 93.6 percent of the time. Significant down time occurred in August 2007 when the system was down while GAC was replaced and system wiring was being upgraded; in September 2008 when the universal power supply failed; and in January 2009 when cold weather resulted in freezing of exterior piping. Other downtime was due to general maintenance and sampling activities. During operating periods, the system had both blowers operating 88.3 percent of the time. Operation with the single blower was primarily due to wiring problems as high amperage draws (due to high system vacuums) resulted in shorting and deterioration of blower wiring. Both blowers were replaced under warranty and additional maintenance measures have resulted in fewer shut downs due blower wiring.

System vacuum and flow rate have averaged approximately 775 scfm at 5.5 in. Hg with both blowers and 575 scfm at 3.5 in. Hg with a single blower. Flow rates at individual wells range from less than 20 acfm at

SVE-A and -G to over 170 acfm at SVE-B, -C and -F. Vacuums measured at the SVE manifold at individual wells vary from approximately 48 inches of water at SVE-D to greater than 100 inches of water at SVE-E and -G. The lower flow rates and higher vacuums at wells SVE-A and SVE-G are considered due to more fine-grained soils in the fluvial deposits at those locations. Vapor treatment with GAC and monitoring results have kept air emissions below permit limits since operations began.

Vapor pressure measurements at VMPs have demonstrated vacuum influence beyond 80 feet since system operations began. VMPs 4A/B, 8A/B and 10A/B located 60 to 80 feet from the associated SVE wells have consistently had vacuums greater than 1 inch H₂O.

The VOC mass removed from the fluvial deposits is estimated quarterly based on average VOC concentrations in the influent sample, system operating hours and flow rates. The FSVE system removed approximately 3,870 pounds of VOCs from startup in July 2007 through January 2009. The estimated VOC mass in the fluvial deposits based on baseline soil samples was approximately 980 pounds (Table 10). The baseline mass may have been underestimated due to the limited samples and the FSVE system probably removes VOC mass from the overlying loess.

Finally, CVOC concentrations in groundwater began to decrease significantly after FSVE operations began (Figure 29) indicating that contaminant migration from subsurface soils to groundwater was prevented.

5.1.3 ET&D

The excavation at TA-1F was performed due to RG exceedance for CF in an RDI boring. During the initial excavation in November and December 2007, it was determined the exceedance was due to CF in a layer of white powdery material at a depth of approximately 9 feet. Additional excavation was performed in February 2009; all the white material was removed and confirmation samples were below RGs. Approximately 210 CY of waste material and soils were disposed as non-hazardous waste at the WMI landfill in Tunica MS, a CERCLA-approved facility.

The excavation at TA-3 was performed to remove crushed buried drums containing petroleum hydrocarbons. The initial excavation from 27 October 2007 to 8 January 2008 removed all of the observed crushed drums and associated debris. Approximately 3,600 CY of drums, other debris and soil were excavated and disposed at the WMI landfill in Tunica MS. Although reported concentrations of VOCs, SVOCs and metals in soil confirmation samples exceeded RGs, further excavation was not performed in order to proceed with construction of the TSVE system. Additional grid soil sampling was

performed in February 2009 and the areas requiring excavation to meet the cleanup standards were identified. The final excavation at TA-3 was performed 11 May to 12 June 2009. An additional 3,600 CY of soil, drums and debris were excavated and disposed at the WMI landfill in Tunica, MS. The confirmation samples met the soil cleanup standards.

5.1.4 Thermal SVE

TSVE treatment of the loess was performed from 27 May to 4 December 2008. The CVOC mass removed by the TSVE system was estimated from daily measurements of the vapor flow rate and the PID reading at the GAC influent. The PID data were correlated with analytical results for periodic vapor samples. Approximately 12,500 pounds of VOCs are estimated to have been removed during treatment. The mass removal estimate is consistent with the RD estimate of 9,000 to 14,000 pounds of CVOCs in the loess. In combination with the ongoing FSVE system, over 16,000 pounds of CVOCs are estimated to have been removed from the subsurface soils in the Source Areas on Dunn Field.

TSVE treatment was performed in four areas with a total area of about 1.25 acres and a treatment interval of approximately 5 to 30 feet bgs. Treatment effectiveness was determined by confirmation soil samples; 35 soil borings were advanced throughout the four TAs and 47 soil samples were collected at various depths and analyzed for VOCs. The average concentration for each of the primary CVOCs in TA-1, TA-2, TA-3 and TA-4 was below the RG and none of the final samples exceeded an RG by a factor of 10 or more.

5.1.5 ZVI Injections

ZVI injections were not required because groundwater objectives for the Source Areas remedy were achieved by the subsurface soil remedies.

5.2 CONSTRUCTION QUALITY ASSURANCE

RA construction (RA-C) activities were performed in accordance with the Construction Quality Assurance Plans included as appendices in the RAWPs. Pre-construction meetings were held with the BCT to review roles and responsibilities, RA plans and additional expectations of BCT members. The FSVE meeting was held 18 April and the Loess/Groundwater meeting was held 11 October 2007.

Pre-construction meetings or discussions were held with key subcontractors (Terry Construction, Onion, Jones Brothers and TerraTherm) to review required documentation and to go over the project plans and schedules. HDR|e²M field staff observed on-site activities to confirm compliance with project plans and

to prepare field documentation. Installation of SVE wells, groundwater monitoring wells and VMPs at the proper location and depth were verified through field measurements, installation summaries and location surveys by a Tennessee-registered land surveyor. Inspections of the FSVE system were made at the manufacturing facility as the system neared completion and following delivery at Dunn Field. Inspections of the TSVE system were made prior to system start-up based on checklist in the TerraTherm work plan. Final inspection of the FSVE system was made as described in section 6.1.1.

5.3 DATA QUALITY EVALUATION

Source Areas RA included sampling and analysis of soil from TAs in the loess and fluvial soils and from site excavations and waste piles/roll-offs; groundwater from MWs; vapor from SVE wells, VMPs and treatment systems for the fluvial and thermal SVE systems; and condensate from the fluvial and thermal SVE systems. The activities were performed in accordance with past practice and the *Remedial Action Sampling and Analysis Plan* (MACTEC, 2005b). Soil, groundwater and condensate samples were submitted to Microbac Laboratories, Inc. (Microbac), formerly Kemron Environmental Services, Inc. in Marietta, Ohio for analysis. Vapor samples from the FSVE system were submitted to TestAmerica in Knoxville, Tennessee and those from the TSVE system were submitted to Microbac.

HDR|e²M performed a data quality evaluation (DQE) of the laboratory data packages to qualify the data relative to the data quality objectives (DQOs) described in the RA SAP. The DQE process involves assessment of field and laboratory procedures, including independent data validation completed by Diane Short and Associates, Inc per the guidelines in the RA SAP. The DQE consisted of review of laboratory Quality Control (QC) data and field QC parameters, and flagging of the data as usable, usable with qualification, or unusable in accordance with the DQE SOPs using the criteria stated in the RA SAP for each analytical method performed. The following information was reviewed:

- Sample Integrity (Deliverables)
- Sample Completeness
- Sample Holding Times
- Laboratory Methods for Extraction and Analysis (Calibration, Internal Standards)
- Method Accuracy and Precision (Surrogates, Matrix Spike/Matrix Spike Duplicate, LCS Recoveries)
- Laboratory Performance Criteria (Blanks, Instrument Performance Checks)

Field QC parameters were evaluated through field duplicates, field blanks, field documentation, and shipping criteria.

The DQE for vapor and condensate samples collected from the FSVE system are provided in the annual operations reports. DQE was not performed for the vapor samples as these results were used to evaluate the progress of the TSVE treatment and not to determine whether RAOs were met. The DQE for the remaining Source Areas RA samples is presented in Appendix N. In addition, the findings are summarized on the analytical results tables by use of flags to indicate the data being considered has been qualified using the established criteria. The analytical results used to confirm RAOs have been met (groundwater analytical results and confirmation soil samples from the excavations at TA-1F and TA-3 and from the loess TAs) meet the DQOs and are sufficient for use in remedial decisions.

6.0 FINAL INSPECTIONS AND CERTIFICATIONS

6.1 RA INSPECTIONS

6.1.1 Fluvial SVE

FSVE operations began on 25 July 2007 following start-up testing. The final construction inspection, as required in the RAWP, was conducted on 8 August, 2007 with representatives from DLA, EPA, TDEC, AFCEE and HDR|e²M. The inspection was made to determine whether RA-C was complete and consistent with the plans. The inspection included a discussion of construction activities and deviations from the RAWP and a physical inspection of the FSVE system. Construction deviations discussed included:

- The blowers originally specified were replaced with two Busch regenerative blowers (Busch Model Samos SB1100D) due to availability. The replacement blowers are specified to provide a vacuum equal to or greater than the original specified blowers;
- All conveyance piping was buried following further discussion with the TSVE vendors and review of the piping specification;
- The AWS was down-sized from 400 gallons to 140 gallons to eliminate a tripping hazard and provide greater access for system maintenance; and
- The concrete pad for the SVE compound was increased to provide easier access.

The site inspection at the FSVE compound included system components and monitoring locations and demonstration of system operations and controls. No outstanding items or deficiencies were noted during the inspection and no follow-up RA-C actions were required.

6.1.2 MSCHD Permit

The FSVE Operating Permit #01030-01P was issued by the MSCHD. A site inspection was conducted by MSCHD on 16 January 2008. No issues were identified during the inspection. Permit conditions include maintaining VOC emissions below 5.71 lb/hr or 25 tons per year with documentation provided in an annual emissions report. The annual emissions report for 2007 was submitted 15 February 2008; the report for 2008 was submitted 6 May 2009. The MSCHD inspection report and annual emissions reports are provided in Appendix O.

6.1.3 Loess Groundwater RA

Final inspection of the Loess/Groundwater RA components were not required as they were discrete treatment remedies with effectiveness determined by confirmation sample results. An EPA representative was on-site during the initial excavation and confirmation sampling at TA-1F on 7 November 2007. A review of TSVE operations and observation of construction activities at Dunn Field was conducted with DLA, EPA and TDEC on 3 April 2007. Other informal site inspections by EPA and TDEC were made during BCT meetings in Memphis. No action items were identified during these site inspections.

6.2 HEALTH AND SAFETY

Field activities were performed under the guidelines in the general site HSP, *Remedial Action HSP* (HDR|e²M, 2006) and an additional plan prepared for the Source Areas to include field activities not described in the general plan, *Source Areas Remedial Action HSP* (Source Areas HSP) (HDR|e²M, 2007b). The plans include general site information, key personnel responsibilities, required training and medical monitoring, PPE and respiratory protection. The plans also provide contaminant fact sheets, hazard analyses for tasks to be performed and specific safe work practices for tasks.

Following discovery of empty ordnance casings during excavation at TA-3, an amendment to the Source Areas HSP was prepared to provide additional expertise for future excavation at TA-3 and to ensure health and safety of site workers. The *HSP Amendment - Excavation Activities at Dunn Field* (HDR|e²M, 2007c) provided that an UXO technician would be present during all excavation activities at TA-3 and would have the ability and authority to stop work at any time if additional UXO is discovered.

Health and safety issues were discussed daily and documented in the Daily Tailgate Safety Meeting notes. There were no site injuries or exposures to hazardous chemical requiring treatment.

6.3 INSTITUTIONAL CONTROLS

LUCs for Dunn Field are described in the LUCIP in Appendix A of the Off Depot RD: deed and/or lease restrictions, Notice of Land Use Restrictions, City of Memphis/Shelby County zoning restrictions, the MSCHD groundwater well restrictions, fencing and the Dunn Field LUC protocol. LUCs will limit use of the Disposal Area to light industrial land uses, prevent residential use of Dunn Field, and prevent exposure to contaminated groundwater. LUCs will remain in place until concentrations of contaminants of concern have been reduced to levels that allow for unlimited exposure and unrestricted use. An annual inspection will be conducted to determine whether the required LUCs remain effective and that land use restrictions are being achieved.

The Notice of Land Use Restrictions for Dunn Field was recorded at the City of Memphis/Shelby County Register of Deeds on 11 June 2009. The first annual inspection was performed 8 to 10 July 2009 and the report was distributed in accordance with the LUCIP. No deficiencies were identified.

6.4 OPS

A request for determination that the Source Areas RA is 'operating properly and successfully' (OPS) was submitted to EPA on 10 June 2009. OPS metrics for the FSVE component, based on system operating parameters and performance monitoring, were described in the FSVE RAWP. There are no continuing operations for the other components of the Source Areas remedy (ET&D, TSVE and ZVI injections), but requirements for successful implementation of those remedies based on confirmations sample analyses were provided in the Loess/Groundwater RAWP.

7.0 OPERATION AND MAINTENANCE ACTIVITIES

The Loess/Groundwater RAs (TSVE and ET&D) were completed as discrete treatment remedies and have no continuing operations. LTM of groundwater in the Dunn Field area and achievement of RAOs in groundwater is being performed in the Off Depot Groundwater RA.

The FSVE system is expected to meet RAOs after 5 years of operation to be completed in 2012.

7.1 FLUVIAL SVE OPERATIONS

7.1.1 Standard Operations

FSVE operations began 25 July 2007. The system is designed to operate continuously, with periodic downtime as necessary for maintenance and monitoring. An Operations and Maintenance (O&M) manual was prepared to describe O&M procedures for the FSVE system. The manual includes as-built drawings and equipment manuals from the manufacturer and standard procedures system operations, required equipment inspections and corrective maintenance in case of system malfunctions.

The blowers provide a vacuum in the subsurface and pull soil vapor via the conveyance piping to the SVE compound. Extracted vapor from the individual wells combine in a single 6-inch header pipeline within the SVE building (at the piping manifold). The vapor stream passes through the AWS tank to remove entrained vapor and debris from the air stream. Air stream temperatures rise to approximately 130 degrees Fahrenheit as they pass through the blowers. The air stream from each blower passes through a heat exchanger on the discharge side of the blower for cooling and is discharged through a 12-foot stack. Two 2,000-pound GAC vessels are available for treatment of the air stream prior to discharge if necessary to meet permit discharge limits (5.71 pounds of VOCs per hour). The GAC vessels have been off line since 5 October 2007 due to low VOC concentrations in the air stream.

The system was designed to operate with both blowers and heat exchangers in a "parallel" configuration with all seven SVE wells online. The system can also operate with a single blower and heat exchanger during blower maintenance or when some SVE wells are offline. Generally, individual SVE wells are maintained in the 100% open position. However, as CVOC concentrations decline, individual SVE well flow rates may be decreased (by adjusting the well's diaphragm valve at the piping manifold) in order to increase airflow at other SVE wells.

The control system continuously monitors key system parameters (e.g., flow rates, pressures, temperatures, etc) and is designed to shut down the system when alarm conditions are triggered. The

system notifies the operator of the system shut down via email or text message. The purpose of the alarm system is to protect key equipment from operating conditions that may be detrimental to future operations.

From startup through January 2009, the system has operated 93.6% of the time. System shutdowns included a one-day shutdown in July 2007 to replace a thermal breaker in the control panel (under warranty). A two-day shutdown in August 2007 due to the tripping of electrical breaker due to high blower amperage; heavier gauge wiring was installed from the panel to the blowers. Blower #1 was offline for a three-day period in January 2008 and Blower #2 was offline for a 6-day period in August 2008 due to shorts in the electrical wiring; an electrical contractor rewired the motor in both cases. The system was offline for a two-day period in September 2008 due to the failure of the universal power supply (UPS); the UPS was replaced under warranty. Blower #2 was offline for a 15 day period beginning 19 November 2008 due to a loose wire in the motor enclosure; the wiring had been replaced in August 2008. The blower was removed and the spare blower installed on 5 December 2008. The blower wiring was inspected and rewired by the electrical contractor at no cost. Cold weather resulted in a shutdown on 15 January 2009 when the condensate froze in the discharge piping; all exterior piping has since wrapped in heat trace to limit future problems from cold weather.

Issues with blower overheating and electrical shorting of motor wiring caused the majority of the system shut downs during Year 1 operations. The primary problem was determined to be higher than expected system vacuum causing the blowers to run near the top of their performance curve. The high vacuum draws power at or near the maximum amperage rating of the blower motors and either tripped the equipment's circuit at the panel or shorted out the blower motor wiring. The higher vacuum is apparently caused by the tighter than expected soils near some of the SVE wells. In most instances, the system was able to be restarted with a single blower in operation which allows the system to run at a lower vacuum. The two blowers were replaced under manufacturer's warranty in (Blower #1 in December 2007 and Blower #2 in March 2008) to ensure the issue was not equipment related.

The power supply from the local utility was investigated as a possible source of the blower shut down issues. The power coming into the system panel from the local utility was monitored with voltage data loggers for a 72-hour period in March 2008. Low voltages swings or "dirty power" could cause the blowers to draw power (or amperage) exceeding the blower motor's rating. No noticeable voltage swings were recorded.

Although the blowers continue to operate at or near the blower performance curve, several measures have been taken to limit effects of the higher vacuum and blower shutdowns. These include installing heavier gauge wiring from panel to blowers, installation of two power meters to monitor amperage draw, weekly inspection of blower wiring by field technicians, and opening spare SVE legs to lower system vacuum blower amperage.

7.1.2 System Inspections and Maintenance

System operational inspections are made at least monthly. Since HDR|e²M technicians are currently on-site as part of ongoing RA activities at DDMT, brief weekly inspections of the SVE system are conducted. Inspections include a visual check of major system components recording flow rates and other operating parameters on Field Sheets from the O&M manual. Activities include:

- Recording flow and pressure at each SVE well
- Measuring vapor concentrations and pressures at VMPs
- Recording blower run-times and operating parameters (pressures and vacuums)
- Heat exchanger run times and operating parameters (temperatures)
- Recording and monitoring of system vacuum and pressure, temperature, flow rate, amperage, and run time.

All operating parameters and observations are recorded on field sheets.

Due to issues with the blower wiring, visual inspection of wiring at the contact block was added to the inspections. Deterioration of the wiring may indicate short-circuiting and/or over-working the blower motors. Condition of blower wiring is included on the field sheets.

General routine maintenance is conducted by field personnel per the maintenance schedule on Table 6-1 of the O&M manual. These tasks include the inspection and cleaning of major system components including the blowers, heat exchangers, and building cooling system. Other tasks include draining and cleaning the AWS with a shop vacuum, cleaning the site glass on flow meters, and inspection of all hoses and piping for leaks or sign of deterioration. General housekeeping of the SVE compound is performed as needed.

7.1.3 Condensate

The condensate collection system reduces the humidity and removes debris from the vapor stream. Lower humidity levels improve efficiency of GAC treatment and removal of debris prevents damage to

the blowers. The condensate collection system consists of a 140-gallon AWS vessel, transfer pump, 535-gallon free-standing tank, 1,635-gallon trailer mounted transfer tank, and associated piping and valves.

Condensate is pumped from the AWS vessel to the 535-gallon free standing tank located immediately outside of the SVE building (east side). The transfer pump is automatically controlled by a series of floats within the AWS vessel. The pump can also be manually operated via the system computer or pump switch located adjacent to the transfer pump.

Once the free standing tank reaches capacity, water is pumped to the trailer-mounted transfer tank for sampling and disposal to the City of Memphis publicly owned treatment works (POTW) via the discharge point for the existing Industrial Wastewater Discharge Agreement Permit #S-NN3-097.

Condensate generation during the first year of FSVE operations was approximately 10 to 25 gallons per day (0.007 to 0.02 gpm) and approximately 4,080 gallons was discharged to the POTW. Condensate generation increased significantly following soil heating for the TSVE and reached over 700 gallons per day (0.5 gpm) in January 2009. As of April 2009, condensate was generated at 384 gallons per day (0.3 gpm). While the TSVE system was in operation, condensate from the FSVE system was added to the TSVE condensate and treated by the liquid phase GAC vessels prior to discharge. A 20,000-gallon frac tank was brought to Dunn Field in March 2009; condensate is pumped to the frac tank and analyzed prior to discharge in accordance with the permit.

7.1.4 Vapor Treatment

The FSVE system operates under an Operations Permit (#01030-01-P) issued by the MSCHD. The permit outlines the operational conditions and maximum discharge emissions (post treatment). Per the permit, the VOC emissions from the SVE system are not to exceed 5.71 lb/hr or 25 tons per year. The permit also requires annual reporting of system emissions. A copy of the permit is included in Appendix O. The current discharge permit expires 15 October 2012.

The FSVE vapor treatment system consists of two epoxy-coated steel vessels each containing 2,000 pounds of GAC. Flexible hosing is used to connect the two vessels in series and to switch the lead and lag vessels as the GAC reaches adsorption capacity in one vessel and is changed out. When VOC concentrations are below air permit limits, the flexible hosing connects the manifold from the heat exchangers directly to the discharge stack.

The GAC vessels require little maintenance when in use. Treatment performance is verified by monitoring CVOC concentrations through field reading with a PID or laboratory samples. The readings or

samples are collected at three locations: System Influent, prior to the lead GAC vessel; Mid-Bed, between the GAC vessels; and System Effluent, at the discharge stack.

The GAC was replaced on 13 August shortly after system operations began and on 27 December 2007. The GAC vessels were taken offline on 5 October 2007 due to low VOC emissions below air permit limits. For each change-out, a subcontractor, TetraSolv, delivered 4,000 pounds of reactivated GAC to Dunn Field in super-sacks. Using a vacuum truck, the spent GAC was transferred from the vessels to super-sacks. The reactivated carbon was hoisted by a small crane and gravity fed into the GAC vessels. A representative profile sample of the spent carbon was collected and sent to Calgon Carbon Corporation in Catlettsburg, Kentucky for analysis. Upon approval, the spent GAC was shipped to Calgon Carbon Corporation in Kentucky for regeneration.

Based on VOC mass estimate in influent and effluent, approximately 473 pounds of VOCs were captured prior to the first change out. This represents a GAC adsorption rate of 12%, near vendor estimates. Prior to being taken offline 5 October 2007, approximately 368 pounds of VOCs were captured for an adsorption rate of 9%. It was decided to replace the GAC in the vessels prior to TSVE operations in order to be prepared to treat the FSVE effluent if necessary. As of September 2009, the treatment system remains offline; the vessels are sealed and available for future use.

7.2 PERFORMANCE MONITORING

Performance monitoring of the FSVE system consists of field measurements and laboratory analysis of vapor samples. Field measurements are collected weekly and consist of flow and pressure measurements and PID readings at SVE wells and the system effluent. At VMPs, vacuum measurements are collected monthly and PID readings are collected quarterly. Vapor samples are collected quarterly from the SVE wells and the treatment system and annually from the VMPs. Performance monitoring procedures and results were discussed in Section 3.1.10.

7.3 SYSTEM SHUTDOWN

When the reduction in VOC concentrations in an SVE well becomes asymptotic at a low level, system operations will be evaluated to increase mass removal rates by pulsing. Pulsing involves the periodic shutdown and startup of extraction wells to allow the subsurface environment to come to equilibrium (shutdown); vapor extraction then begins again (startup). If mass removal rates remain asymptotic in a TA, the system will be shutdown temporarily and periodic vapor concentration measurements will be made to observe the vapor concentration rebound. If the concentration rebound is sufficiently small, the

SVE well will be de-activated and confirmation soil sampling will be performed. If soil concentrations are below the RGs for fluvial soils (Table 1), the SVE wells and VMPs in that TA will be abandoned; if soil concentrations are above RGs, continued SVE operation with enhancements, such as installation of additional SVE and/or injection wells will be evaluated.

Confirmation sample locations and depths will be selected based on results from previous samples in the fluvial soils (samples from SVE wells and VMPs) and the loess (RDI soil samples), and observations from SVE system operations. Soil samples will be collected from 4-inch diameter soil borings advanced using rotasonic drilling methods. Borings will be halted at the sample depth, soil removed from the core barrel and a 3-inch diameter split-spoon sampler hydraulically advanced in undisturbed soil below the drill rod. The sampler will be opened at the surface and a soil sample from the middle of the sampler will be collected using an En Core® syringe-type sampler. The samples will be submitted for analysis of VOCs.

7.4 FUTURE RESTORATION ACTIVITIES

No further RA is planned on Dunn Field. Groundwater RAOs in the Dunn Field ROD will be achieved through the Off Depot Groundwater RA. The RAWP was approved by TDEC on 18 October 2008 and by EPA on 18 March 2009. RA implementation began in June 2009 following approval of the access agreement with MLGW.

8.0 COST SUMMARY

The ROD provided costs for SVE in subsurface soil (Table 2-22b) and for ZVI Injection and PRB Installation in groundwater (Table 22-C); the costs were developed in 2003. The subsurface soil remedy capital costs included construction and operations for year 1; the total present worth (PW) costs included annual operating costs for 3 years adjusted based on a 5 percent interest rate. The groundwater remedy capital costs included ZVI injection and PRB installation; the operating costs included groundwater monitoring for years 2 through 15. The ZVI injection costs shown below are the cost for ZVI injection procedures and a pro rata share of the contingency for capital costs and project management from ROD Table 2-22c; no groundwater monitoring costs are included since LTM is being conducted as part of the Off Depot Groundwater RA. The initial costs are from the ROD and the adjusted costs reflect an annual 3 percent increase for inflation over five years (2003 to 2008).

Activity	Capital Costs	Annual Operations	Annual Operations PW Cost	Total PW Cost
<u>Initial ROD Estimate</u>				
SVE	\$3,184,000	\$451,000	\$1,228,000	\$4,411,000
ZVI Injection	\$5,053,012	\$0	\$0	\$5,053,012
Total	\$8,227,012	\$451,000	\$1,228,000	\$9,464,012
<u>Adjusted ROD Estimate</u>				
SVE	\$3,690,256	\$522,709	\$1,416,477	\$5,106,733
ZVI Injection	\$5,856,441	\$0	\$0	\$5,856,441
Total	\$9,546,697	\$522,709	\$1,416,477	\$10,963,174

The actual costs incurred for construction and operations of the FSVE system, the TSVE system and ET&D of two areas are shown on Table 40. The FSVE system is in the second year of operations, therefore actual costs are only available for construction and Year 1 operations. The operating costs for Year 1 are assumed to reflect operating costs for the planned period of operations (Years 2 through 5); the PW costs were adjusted based on a 5 percent interest rate for Years 3 through 5. ZVI injections will not be required based on the reduction in groundwater CVOC concentrations and those costs will not be incurred.

Activity	Capital Costs	Annual Operations	Annual Operations PW Cost	Total PW Cost
<u>Actual Capital Costs and Estimated Operations</u>				
Subsurface Soil	\$6,787,810	\$170,000	\$630,700	\$7,418,510
ZVI Injection	\$0	\$0	\$0	\$0
Total	\$6,787,810	\$170,000	\$630,700	\$7,418,510

The actual total PW cost for the subsurface soil remedy is 145 percent of the adjusted ROD estimate due to the increased cost for TSVE and ET&D in the loess as opposed to use of conventional SVE. The cost was decreased due to the reduction in extent of the TAs. The reduced operations cost also reflect the operations in the fluvial sands only. The actual costs include five years of operations for the FSVE while the ROD included only four years of operations. The actual total PW cost for the Source Areas remedy is 68% of the adjusted ROD estimate due to omission of ZVI injections.

9.0 CONTACT INFORMATION

Contact information for project participants is provided below.

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*Source Areas Interim Remedial Action Completion Report
Defense Depot Memphis, Tennessee*

*September 2009
Revision 1*

TABLES

TABLE 1
 REMEDIATION GOALS FROM DUNN FIELD RECORD OF DECISION
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Parameter	Remedial Goal Objectives				
	Site-Specific Soil Screening Levels to be Protective of Groundwater		Protective Soil Vapor Concentration		Groundwater Target Concentrations at 10-4 Target Risk Levels and Target HI=1.0 (µg/L)
	Loess Specific Values (mg/kg)	Fluvial Deposit Specific Values (mg/kg)	Loess Specific Values (ppbv)	Fluvial Deposit Specific Values (ppbv)	
Carbon Tetrachloride	0.2150	0.1086	28.14	14.22	3.0
Chloroform	0.9170	0.4860	61.57	32.63	12.0
Dichloroethane, 1,2-	0.0329	0.0189	1.12	0.64	—
Dichloroethene, 1,1-	0.1500	0.0764	57.00	29.03	7/340
Dichloroethene, cis-1,2-	0.7550	0.4040	73.86	39.52	35.0
Dichloroethene, trans-1,2-	1.5200	0.7910	256.53	133.50	50.0
Methylene Chloride	0.0305	0.0169	5.14	2.85	—
Tetrachloroethane, 1,1,2,2-	0.0112	0.0066	0.03	0.55	2.2
Tetrachloroethene	0.1806	0.0920	15.18	0.99	2.5
Trichloroethane, 1,1,2	0.0627	0.0355	0.84	2.03	1.9
Trichloroethene	0.1820	0.0932	10.56	2.06	5.0
Vinyl Chloride	0.0294	0.0150	28.94	14.77	—

Notes:

mg/kg = milligrams per kilogram

µg/L = micrograms per liter

ppbv = parts per billion per volume

MCL = maximum contaminant level

HI = hazard index

-- = Not available for groundwater cleanup goals because of low number of detections or detected values consistently less than MCLs.

TABLE 2
 BASELINE MONITORING WELL INSTALLATION SUMMARY
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Date Completed	Northing	Easting	Top of Casing Elevation (ft msl)	Ground Elevation (ft. msl)	Stick-up (ft.)	Total Boring Depth (ft. bgs)	Groundwater Depth (ft. btoc)	Depth to Top of Screen (ft. btoc)	Depth to Top of Clay (ft. bgs)	Aquifer Thickness (ft.)	Total Well Depth (ft. bloc)
MW-220	5/4/2007	281617.49	802166.87	293.29	290.31	3.0	86	68.0	64.7	77	12.0	79.7
MW-221	5/3/2007	281399.71	802100.05	301.52	298.37	3.1	86	79.5	73.1	83	6.6	88.1
MW-222	5/2/2007	280986.04	802145.54	303.82	301.06	2.8	96	80.1	74.2	86	8.7	89.2
MW-223	5/1/2007	280913.53	802104.29	303.00	300.41	2.6	96	78.9	73.9	86	9.7	88.9
MW-224	4/25/2007	281017.74	802181.62	304.13	301.18	2.9	96	80.2	73.7	86	8.7	88.7
MW-225	4/30/2007	280946.92	802070.72	304.25	301.06	3.2	96	80.8	75.0	86	8.4	90.0
MW-226	5/1/2007	280931.94	802147.21	303.19	300.56	2.6	96	79.3	74.2	85	8.3	89.2
MW-227	4/23/2007	280257.91	802081.00	299.70	296.64	3.1	86	73.8	63.6	76	5.3	78.6
MW-228	4/24/2007	280251.88	802157.40	301.65	298.59	3.1	79	75.5	64.1	76	3.6	79.1

Note

1. All wells completed with top of casing above ground surface (stick-up).
2. All wells have 15-foot screens
3. Water levels measured May 7-10, 2007

TABLE 3
 BASELINE WELL DEVELOPMENT SUMMARY
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Date Developed	Start Time	Finish Time	Depth to Water	Volume Purged gallons	Final Stabilization Parameters				
						pH	Conductivity mS/M	Turbidity NTUs	Temperature °C	Total Depth ft, btoc
MW-220	5/10/2007	8:45	13:05	67.96	225	6.28	0.90	8.7	21.8	79.7
MW-221	5/9-10/07	15:20	8:15	79.53	175	6.10	0.57	8.3	18.7	88.0
MW-222	5/9/2007	7:25	11:49	80.05	40	8.66	35.5	665	20.4	89.1
MW-223	5/8/2007	7:20	8:44	78.90	29	5.99	27.1	OR	19.1	88.9
MW-224	5/9/2007	12:30	14:33	80.23	210	5.98	27.1	3.4	18.8	88.6
MW-225	5/7/2007	14:43	16:38	80.83	25	7.32	47.5	375	19.7	89.8
MW-226	5/8/2007	8:20	15:50	79.30	366	5.80	22.3	37.7	19.2	89.0
MW-227	5/7/2007	12:15	13:37	73.75	80	5.28	49.6	6.4	20.5	78.6
MW-228	5/7/2007	8:45	10:45	75.46	85	5.44	21.3	2.7	21.0	79.1

TABLE 4
 BASELINE WATER LEVEL MEASUREMENTS
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	Depth to Water	Groundwater Elevation
				14-May-2007	
				(ft, btoc)	(ft, msl)
MW-03	Fluvial	292.35	226.85	71.15	221.20
MW-04	Fluvial	301.61	241.61	77.08	224.53
MW-05	Fluvial	304.64	244.64	DRY	-
MW-06	Fluvial	289.11	238.11	68.76	220.35
MW-07	Fluvial	295.10	228.10	68.70	226.40
MW-08	Fluvial	292.59	236.09	64.06	228.53
MW-09	Fluvial	304.32	234.22	77.93	226.39
MW-10	Fluvial	288.79	230.19	66.25	222.54
MW-11	Fluvial	299.47	231.57	77.30	222.17
MW-13	Fluvial	300.01	234.01	75.14	224.87
MW-14	Fluvial	302.22	237.22	75.02	227.20
MW-15	Fluvial	295.12	231.72	70.10	225.02
MW-28	Fluvial	294.79	240.49	57.60	237.19
MW-29	Fluvial	273.22	239.02	40.61	232.61
MW-30	Fluvial	275.14	236.14	48.38	226.76
MW-31	Fluvial	290.37	226.27	72.15	218.22
MW-32	Fluvial	285.38	232.68	64.08	221.30
MW-33	Fluvial	280.71	236.11	56.64	224.07
MW-35	Fluvial	300.46	230.86	78.84	221.62
MW-37	Intermediate	284.91	119.21	124.32	160.59
MW-49	Fluvial	310.49	230.49	79.74	230.75
MW-51	Fluvial	275.23	220.23	NA	-
MW-56	Fluvial	293.60	234.60	67.80	225.80
MW-58	Fluvial	290.51	233.51	63.93	226.58
MW-59	Fluvial	300.13	227.63	76.56	223.57
MW-60	Fluvial	296.86	224.36	73.10	223.76
MW-61	Fluvial	294.04	225.54	69.72	224.32
MW-68	Fluvial	291.69	219.19	70.60	221.09
MW-69	Fluvial	307.02	224.94	85.11	221.91
MW-70	Fluvial	304.99	224.18	82.43	222.56
MW-71	Fluvial	294.40	228.90	NA	-
MW-73	Fluvial	300.65	228.65	77.10	223.55
MW-74	Fluvial	303.68	233.68	80.74	222.94
MW-75	Fluvial	303.61	232.61	80.93	222.68
MW-76	Fluvial	302.71	229.71	85.23	217.48
MW-77	Fluvial	304.42	236.42	83.24	221.18
MW-78	Fluvial	275.00	230.50	49.63	225.37
MW-87	Fluvial	294.93	231.93	71.59	223.34
MW-91	Fluvial	291.99	236.99	68.07	223.92
MW-129	Fluvial	293.01	228.01	57.82	235.19
MW-130	Fluvial	293.20	233.70	57.02	236.18
MW-131	Fluvial	300.64	224.64	76.84	223.80
MW-132	Fluvial	300.73	227.23	77.28	223.45
MW-133	Fluvial	300.89	225.89	77.31	223.58
MW-134	Fluvial	300.81	225.81	77.44	223.37
MW-135	Fluvial	300.53	233.53	77.11	223.42
MW-144	Fluvial	291.60	235.10	75.41	216.19

TABLE 4
 BASELINE WATER LEVEL MEASUREMENTS
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	Depth to .	Groundwater
				Water	Elevation
				14-May-2007	
				(ft, btoc)	(ft, msl)
MW-147	Fluvial	289.72	229.72	72.75	216.97
MW-154	Fluvial	273.81	220.81	57.63	216.18
MW-157	Fluvial	286.78	229.78	71.80	214.98
MW-161	Fluvial	296.40	234.60	79.33	217.07
MW-162	Fluvial	299.70	233.39	NA	-
MW-163	Fluvial	290.63	234.42	74.82	215.81
MW-164	Fluvial	287.48	231.86	70.98	216.50
MW-172	Fluvial	300.28	232.28	73.67	226.61
MW-173	Fluvial	296.30	234.30	70.40	225.90
MW-174	Fluvial	296.56	229.56	71.01	225.55
MW-175	Fluvial	291.63	224.13	66.78	224.85
MW-177	Fluvial	300.11	215.11	76.71	223.40
MW-178	Fluvial	300.26	224.26	76.30	223.96
MW-179	Fluvial	301.16	224.16	77.64	223.52
MW-180	Fluvial	296.14	224.14	74.10	222.04
MW-181	Fluvial	291.14	224.14	68.30	222.84
MW-187	Fluvial	302.74	226.74	76.60	226.14
MW-220	Fluvial	293.29	228.35	70.88	222.41
MW-221	Fluvial	301.52	228.40	79.59	221.93
MW-222	Fluvial	303.82	229.64	80.00	223.82
MW-223	Fluvial	303.00	229.13	79.31	223.69
MW-224	Fluvial	304.13	230.42	80.40	223.73
MW-225	Fluvial	304.52	229.54	81.04	223.48
MW-226	Fluvial	303.19	228.97	79.36	223.83
MW-227	Fluvial	299.70	236.06	73.79	225.91
MW-228	Fluvial	301.65	237.56	75.39	226.26

Note: NA - well not accessible

TABLE 5
 BASELINE WELL STABILIZATION SUMMARY
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Time	Sample Depth ft (blc)	Depth to Water ft (blc)	Purge Rate mL/min	Cumulative Volume Purged Liters	pH	Temp °C	Spec. Conductivity mS/cm	Dissolved Oxygen mg/L	Oxidation Reduction Potential mV	Turbidity NTUs	Iron ppm	CO2 ppm
MW-03	5/14/2007	14:50	73.2	71.15	140	48.4	6.0	19.8	1.59	4.85	213	11.0	0	95
MW-06	5/16/2007	8:15	68.8	65.28	240	10.0	5.5	17.2	9.72	6.41	221	0.9	0	150
MW-07	5/14/2007	13:15	72.0	68.68	240	13.1	5.8	18.3	1.46	6.14	238	13.6	0	100
MW-11	5/15/2007	9:15	80.0	77.30	200	12.0	5.8	18.9	2.12	8.01	125	6.8	0	55
MW-15	5/15/2007	13:15	77.0	70.10	240	8.0	6.0	19.8	0.999	10.91*	162	0.0	0	160
MW-57	5/15/2007	8:06	70.0	64.43	260	16.7	6.2	18.8	0.473	11.01*	167	18.5	0	150
MW-68	5/17/2007	11:20	79.5	70.60	240	26.0	5.8	18.1	0.9	2.69	218	19.6	0	145
MW-73	5/16/2007	15:16	85.0	77.10	160	11.5	6.7	20.5	0.852	7.7	-34	13.7	NT	NT
MW-74	5/17/2007	9:00	85.0	80.74	240	12.0	6.4	18.7	0.724	5.54	110	18.3	0	50
MW-131	5/17/2007	12:15	83.5	76.84	160	12.8	6.3	19.8	0.578	7.58	194	19.6	0	100
MW-132	5/17/2007	14:15	84.0	77.28	200	9.5	6.2	20.0	0.999	0.8	96	7.8	0	100
MW-133	5/17/2007	15:50	84.9	77.31	220	4.9	5.9	18.0	1.28	0.23	96	16.2	6.4	125
MW-134	5/17/2007	16:16	84.0	77.44	200	15.5	5.8	18.7	0.999	1.97	124	12.7	0	100
MW-172	5/15/2007	11:50	76.1	73.67	200	12.6	6.2	22.2	0.67	13.08*	173	17.4	0	140
MW-173	5/14/2007	14:00	72.0	70.40	160	10.3	5.9	21.2	0.999	5.9	193	15.7	0	160
MW-174	5/14/2007	16:10	75.0	71.01	200	12.6	6.1	21.3	0.9	6.83	213	19.8	0	130
MW-175	5/15/2007	15:45	76.0	66.78	260	11.7	6.2	19.0	0.521	7.83	165	17.0	NT	NT
MW-177	5/16/2007	14:20	83.0	76.71	260	23.0	5.8	18.5	0.999	7.83	193	15.7	0	120
MW-178	5/17/2007	8:25	83.0	76.30	260	9.9	5.8	17.5	0.9	5.48	188	12.8	0	100
MW-179	5/17/2007	14:05	84.4	77.64	280	21.4	5.8	18.6	0.9	5.67	207	19.7	0	130
MW-180	5/21/2007	9:05	78.6	74.10	240	8.9	6.0	19.4	0.842	3.8	187	16.9	0	100
MW-181	5/18/2007	10:30	76.0	68.30	240	13.1	5.9	17.7	0.999	2.27	194	16.1	0	100
MW-187	5/16/2007	10:05	83.6	76.60	200	11.1	5.8	19.3	0.999	6.24	156	18.2	0	125
MW-188	5/16/2007	12:00	85.5	76.16	260	18.5	5.8	19.0	0.367	5.75	204	19.9	0	100
MW-220	5/18/2007	14:30	77.6	70.88	240	5.2	6.2	18.8	0.999	0.5	-23	12.1	NT	NT
MW-221	5/21/2007	11:25	85.0	79.59	160	17.5	6.1	21.5	0.999	5.07	115	8.0	0	95
MW-222	5/16/2007	12:15	80.7	80.00	240	25.7	7.3	19.0	0.753	4.8	-124	28.4	1.2	25
MW-223	5/16/2007	14:08	88.0	79.31	280	15.0	6.1	19.7	0.9	5.87	70	19.1	0.8	80
MW-224	5/16/2007	9:10	84.0	80.40	240	11.6	6.5	17.7	0.82	3.34	31	17.1	1	50
MW-225	5/16/2007	12:05	85.0	81.04	200	12.8	6.8	21.5	2.3	2.34	-116	13.1	2.4	35
MW-226	5/15/2007	16:18	84.0	79.36	120	7.8	6.2	19.5	0.9	7.72	32	73.7	2	30
MW-227	5/14/2007	11:13	76.0	73.79	240	11.6	6.0	21.5	0.9	10.84*	143	19.9	0.2	180
MW-228	5/14/2007	11:05	77.0	75.39	120	7.1	5.8	22.7	0.999	6.19	84	0.0	1.4	75

Notes.
 * - possible malfunction
 NT - not tested
 NS - not sampled

TABLE 6
BASELINE GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample ID	MW-03-SARA-GW01	MW-06-SARA-GW01	MW-07-SARA-GW01	MW-11-SARA-GW01	MW-15-SARA-GW01	MW-57-SARA-GW01	MW-68-SARA-GW01	MW-73-SARA-GW01	MW-73-DUP	MW74-SARA-GW01
Date	5/14/2007	5/16/2007	5/14/2007	5/15/2007	5/15/2007	5/15/2007	5/17/2007	5/16/2007	5/16/2007	5/17/2007
Analyte	units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	0.35 F	<0.5	<100	<100	<0.5
1,1,2,2-Tetrachloroethane	ug/L	67	41	<0.5	4.1	78	5.5	37000	43000	60
1,1,2-Trichloroethane	ug/L	1.5	3.9	<1	<1	3.7	<1	80 F	85 F	<1
1,1-Dichloroethane	ug/L	<1	<1	1.2	<1	<1	<1	<200	<200	<1
1,1-Dichloroethene	ug/L	1.3	<1	20	<1	<1	<1	<200	<200	<1
1,2-Dichloroethane	ug/L	<0.5	0.52	0.33 F	<0.5	4.4	<0.5	<100	<100	<0.5
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<100	<100	<0.5
Carbon tetrachloride	ug/L	0.82 F	16	<1	<1	31	28	<200	<200	<1
Chloroform	ug/L	12	6.2	0.55	0.83	810	5.8	<60	<60	0.2 F
cis-1,2-Dichloroethene	ug/L	59	200	0.26 F	19	27	0.33 F	1200	1100	2.3
Tetrachloroethene	ug/L	1.8	1.4	47	5.8	14	4.3	<200	<200	1.1
trans-1,2-Dichloroethene	ug/L	12	11	<1	5.9	5.8	0.58 F	180 F	170 F	0.3 F
Trichloroethene	ug/L	87	120	25	56	330	29	4100	4000	69
Vinyl chloride	ug/L	<1	0.68 F	<1	0.35 F	<1	<1	<200	<200	<1

<: Not detected above Reporting Limit (RL)
F: Concentration below RL
M: Concentration estimated due to matrix effect

TABLE 6
 BASELINE GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Sample ID	Date	MW131- SARA- GW01	MW132- SARA- GW01	MW133- SARA- GW01	MW134- SARA- GW01	MW172- SARA- GW01	MW173- SARA- GW01	MW174- SARA- GW01	MW175- SARA- GW01	MW177- SARA- GW01
units											
1,1,1,2-Tetrachloroethane	ug/L	5/17/2007	<1	<2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	0.8 F
1,1,2,2-Tetrachloroethane	ug/L	5/17/2007	110	2400	110	240	<0.5	13	0.37 F	<0.5	370
1,1,2-Trichloroethane	ug/L	5/17/2007	<2	<4	0.42 F	<1	<1	1.7 F	<1	<1	27
1,1-Dichloroethane	ug/L	5/17/2007	<2	<4	<1	<1	<1	<2	<1	<1	<2
1,1-Dichloroethene	ug/L	5/17/2007	<2	1.8 F	<1	<1	<1	<2	<1	<1	0.3 F
1,2-Dichloroethane	ug/L	5/17/2007	<1	<2	<0.5	<0.5	0.21 F	4.7	<0.5	<0.5	0.89 F
Bromodichloromethane	ug/L	5/17/2007	<1	<2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<1
Carbon tetrachloride	ug/L	5/17/2007	<2	<4	<1	<1	1.5	49	5.9	<1	2.7
Chloroform	ug/L	5/17/2007	0.52 F	<1.2	0.24 F	0.29 F	13	820	68	0.48	7.3
cis-1,2-Dichloroethene	ug/L	5/17/2007	8.9	92	5.6	7.1	<1	45	0.63 F	<1	77
Tetrachloroethene	ug/L	5/17/2007	4.8	8.3	3.5	3.1	0.59 F	23	1.9	0.3 F	29
trans-1,2-Dichloroethene	ug/L	5/17/2007	2.9	6.4	1.6	1.8	<1	11	0.28 F	<1	19
Trichloroethene	ug/L	5/17/2007	560	870	350	150	7	390	33	0.39 F	3500
Vinyl chloride	ug/L	5/17/2007	<2	10	<1	<1	<1	<2	<1	<1	<2

<: Not detected above Reporting Limit (RL)
 F: Concentration below RL
 M: Concentration estimated due to matrix effect

TABLE 6
 BASELINE GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Sample ID	MW178- SARA- GW01	MW179- SARA- GW01	MW180 SARA GW01	MW181 SARA GW01	MW-187- SARA- GW01	MW-188- SARA- GW01	MW220 SARA GW01	MW-220 DUP	MW221 SARA GW01
Date	5/17/2007	5/17/2007	5/21/2007	5/18/2007	5/16/2007	5/16/2007	5/18/2007	5/18/2007	5/21/2007
Analyte	units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	21	0.67	31	780	480	110
1,1,2-Trichloroethane	ug/L	<1	<1	<1	<1	3.6	9.3	7.9	1.9
1,1-Dichloroethane	ug/L	<1	<1	0.2 F	<1	<2	0.8 F	0.75 F	<1
1,1-Dichloroethene	ug/L	<1	<1	3.8	<1	<2	18	17	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<1	0.69	0.6	<0.5
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5
Carbon tetrachloride	ug/L	<1	<1	0.26 F	1.2	0.8 F	<1	<1	<1
Chloroform	ug/L	0.21 F	<0.3	1.6	22	0.29 F	2.5	1.9	1.4
cis-1,2-Dichloroethene	ug/L	1.7	<1	23	32	0.4 F	420	270	52
Tetrachloroethene	ug/L	2.8	1.1	2.8	5.6	0.36 F	16	17	6.9
trans-1,2-Dichloroethene	ug/L	0.95 F	<1	9.6	15	<1	76	47	10
Trichloroethene	ug/L	130	1.8	78	110	3.7	530	350	140
Vinyl chloride	ug/L	<1	<1	<1	<1	<2	0.63 F	0.5 F	<1

<: Not detected above Reporting Limit (RL)

F: Concentration below RL

M: Concentration estimated due to matrix effect

TABLE 6
 BASELINE GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Sample ID	MW-222- SARA- GW01	MW-223- SARA- GW01	MW-224- SARA- GW01	MW-224- DUP	MW-225- SARA- GW01	MW-226- SARA- GW01	MW227- SARA- GW01	MW-227- DUP	MW228- SARA- GW01
Date	5/16/2007	5/16/2007	5/16/2007	5/16/2007	5/15/2007	5/15/2007	5/14/2007	5/14/2007	5/14/2007
Analyte	units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane		<2.5	<1	<0.5	<0.5	<1	0.54	0.55	<0.5
1,1,2,2-Tetrachloroethane		340	14	140	190	220	120	130	46
1,1,2-Trichloroethane		<5	3.1	<1	0.47 F	1.4 F	6.1	5.7	0.99 F
1,1-Dichloroethane		<5	<2	<1	<1	<2	<1	<1	<1
1,1-Dichloroethene		<5	<2	<1	<1	<2	<1	<1	<1
1,2-Dichloroethane		<2.5	<1	<0.5	<0.5	<1	4.4	4.2	<0.5
Bromodichloromethane		<2.5	<1	<0.5	<0.5	<1	0.9	0.82	<0.5
Carbon tetrachloride		<5	0.39 F	<1	<1	<2	43	41	3.4
Chloroform		<1.5	0.95	0.18 F	0.15 F	0.72	1100	1100	120
cis-1,2-Dichloroethene		150	15	4.8	5.6	19	40	38	16
Tetrachloroethene		5.7	3.7	1.7	1.6	7.1	22	21	1.8
trans-1,2-Dichloroethene		66	3.7	1	1.1	4.5	8.5	8	0.38 F
Trichloroethene		1100	500	92	92	740	420	440	42
Vinyl chloride		<5	<2	<1	<1	<2	<1	<1	<1

<: Not detected above Reporting Limit (RL)

F: Concentration below RL

M: Concentration estimated due to matrix effect

TABLE 7
FLUVIAL SVE WELL INSTALLATION SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Date Completed	Northing	Easting	Top of Casing Elevation (ft msl)	Ground Elevation (ft. msl)	Total Boring Depth (ft. bgs)	Top of Fluvial (ft. bgs)	Adjacent Monitoring Well	Depth to Water (ft. bgs)	Well Screen		
										Top (ft. bgs)	Bottom (ft. bgs)	Length (ft)
SVE-A	5/15/2007	281623.60	802283.65	291.20	292.2	64	34	MW-61	69.9	32.2	62.2	30
SVE-B	5/16/2007	281610.85	802183.03	289.30	290.6	61	31	MW-220	67.9	31.0	61.0	30
SVE-C	5/30/2007	281396.01	802107.94	297.20	298.6	70	35	MW-221	76.5	34.3	69.3	35
SVE-D	5/23/2007	281000.25	802170.42	300.10	301.4	72	36	MW-224	77.5	36.7	71.7	35
SVE-E	6/1/2007	280923.05	802124.23	299.10	300.5	71	35	MW-226	76.8	34.7	69.7	35
SVE-F	6/5/2007	280589.08	802211.52	292.90	293.4	63.5	27	MW-175	67.1	28.2	63.2	35
SVE-G	6/6/2007	280234.35	802146.51	296.90	298.2	70	31	MW-228	75.3	33.6	68.6	35

Note:

1. Water levels measured May 14, 2007
2. Top of Casing surveyed at connection to conveyance line.

TABLE 8
FLUVIAL VMP INSTALLATION SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Date Completed	Northing	Easting	Top of Casing Elevation (ft.msl)	Ground Elevation (ft.msl)	Total Boring Depth (ft.bgs)	Depth to Center of VMP Screen (ft.bgs)	Adjacent SVE Well	Ground Elevation (ft.msl)	SVE Well Screen	
										Top (ft.bgs)	Bottom (ft.bgs)
VMP-1A	5/15/2007	281609.5	802278.2	295.37	292.51	59.0	54.7	SVE-A	292.2	32.2	62.2
VMP-1B	5/19/2007	281605.5	802272.9	295.40	292.51	42.5	39.8	SVE-A	292.2	32.2	62.2
VMP-2A	5/17/2007	281632.7	802161.5	292.39	289.64	60.0	52.6	SVE-B	290.6	31.0	61.0
VMP-2B	5/20/2007	281638.8	802158.1	292.78	289.35	41.5	37.5	SVE-B	290.6	31.0	61.0
VMP-3A	5/17/2007	281416.1	802084.7	300.58	297.54	64.0	61.2	SVE-C	298.6	34.3	69.3
VMP-3B	5/20/2007	281415.2	802091.1	300.86	297.83	46.0	41.9	SVE-C	298.6	34.3	69.3
VMP-4A	5/18/2007	281340.3	802130.2	302.09	299.30	66.0	62.1	SVE-C	298.6	34.3	69.3
VMP-4B	6/1/2007	281339.0	802125.1	302.43	299.36	45.6	43.1	SVE-C	298.6	34.3	69.3
VMP-5A	5/21/2007	281002.2	802139.5	303.97	301.42	66.5	63.5	SVE-D	301.4	36.7	71.7
VMP-5B	6/2/2007	280999.2	802139.4	304.13	301.33	46.0	43.2	SVE-D	301.4	36.7	71.7
VMP-6A	5/22/2007	280961.5	802147.7	303.96	300.83	66.5	61.7	SVE-E	300.5	34.7	69.7
VMP-6B	6/3/2007	280959.3	802151.0	303.33	300.58	45.5	43.2	SVE-E	300.5	34.7	69.7
VMP-7A	6/11/2007	280601.9	802203.2	295.90	293.34	58.0	55.5	SVE-F	293.4	28.2	63.2
VMP-7B	6/14/2007	280603.1	802205.6	296.08	293.49	38.0	34.8	SVE-F	293.4	28.2	63.2
VMP-8A	6/11/2007	280577.0	802291.0	304.08	301.42	67.0	64.2	SVE-F	293.4	28.2	63.2
VMP-8B	6/14/2007	280573.0	802290.1	304.02	301.46	46.5	44.0	SVE-F	293.4	28.2	63.2
VMP-9A	6/13/2008	280256.4	802107.0	300.01	297.19	66.0	59.8	SVE-G	298.2	33.6	68.6
VMP-9B	6/14/2007	280259.6	802109.1	299.85	297.47	42.5	40.0	SVE-G	298.2	33.6	68.6
VMP-10A	6/13/2007	280225.7	802206.0	302.94	300.15	65.6	62.8	SVE-G	298.2	33.6	68.6
VMP-10B	6/13/2007	280229.0	802206.8	302.94	300.13	46.0	43.0	SVE-G	298.2	33.6	68.6

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TABLE 9
BASELINE FLUVIAL SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte (mg/kg)	Sample ID Depth (ft.)	SVE-A-B 5/14/2007	SVE-A-M 5/14/2007	SVE-A-T 5/14/2007	SVE-B-B 5/16/2007	SVE-B-M 5/16/2007	SVE-B-T 5/16/2007	SVE-C-B 5/30/2007	SVE-C-M 5/30/2007	SVE-C-T 5/29/2007	SVE-D-B 5/22/2007	SVE-D-M 5/22/2007
	Date	39	49	59	39	49	59	43	53	63	44	54
	Fluvial RG											
1,1,2,2-Tetrachloroethane	0.0066	<0.0031	<0.0032	<0.0034	1.3	17	5.5	0.48	0.54	8.8	3	13 J
1,1,2-Trichloroethane	0.0355	<0.0052	<0.0054	<0.0057	0.0062	0.062	0.014	0.0074	0.0046 F	0.095	0.0018 F	0.013
1,2-Dichloroethane	0.0189	<0.0031	<0.0032	<0.0034	<0.0033	0.0021 F	<0.0032	<0.004	<0.0033	0.017	<0.0034	<0.0029
1,1-Dichloroethene	0.0764	<0.0063	<0.0065	<0.0068	<0.0065	<0.0065	<0.0065	<0.0081	<0.0067	<0.0078	<0.0067	<0.0058
Acetone	-	<0.052	0.008 F	0.0078 F	<0.055	0.0046 F	<0.054	<0.067	<0.056	0.091	<0.056	<0.048
Carbon tetrachloride	0.1086	<0.0052	<0.0054	<0.0057	<0.0055	<0.0054	<0.0054	<0.0067	<0.0056	<0.0065	<0.0056	<0.0048
Chloroform	0.4860	<0.0021	<0.0022	<0.0023	<0.0022	0.00072 F	<0.0022	<0.0027	<0.0022	0.0064	<0.0022	<0.0019
cis-1,2-Dichloroethene	0.4040	<0.0052	<0.0054	<0.0057	0.0011 F	0.19	0.0083	0.019	0.0099	0.36	0.0016 F	0.007
Methylene chloride	0.0169	<0.0052	<0.0054	<0.0057	0.0014 F	0.0017 F	0.0017 F	0.0029 F B	0.0034 F B	<0.0065	<0.0056	<0.0048
Tetrachloroethene	0.0920	<0.0052	<0.0054	<0.0057	<0.0055	<0.0054	<0.0054	<0.0067	<0.0056	0.0019 F	<0.0056	0.0025 F
trans-1,2-Dichloroethene	0.7910	<0.0052	<0.0054	<0.0057	<0.0055	0.0066	<0.0054	0.002 F	0.0011 F	0.042	<0.0056	<0.0048
Trichloroethene	0.0932	<0.0052	<0.0054	<0.0057	0.0072	0.079	0.0065	0.028	0.016	0.49	0.079	0.23
Vinyl chloride	0.0150	<0.0052	<0.0054	<0.0057	<0.0055	<0.0054	<0.0054	<0.0067	<0.0056	<0.0065	<0.0056	<0.0048

Bold: Exceeds RG

Bold Underline: Exceeds RG X 10

<: Not detected above Reporting Limit (RL)

B: Method Blank contamination

F: Estimated result below RL

M: Concentration estimated due to matrix effect

TABLE 9
BASELINE FLUVIAL SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte (mg/kg)	Sample ID Depth (ft.)	SVE-D-T Date	SVE-E-B 5/31/2007	SVE-E-M 5/31/2007	SVE-E-T 5/31/2007	SVE-F-B 6/5/2007	SVE-F-M 6/4/2007	SVE-F-T 6/4/2007	SVE-G-B 6/6/2007	SVE-G-M 6/6/2007	SVE-G-T 6/5/2007
Fluvial RG											
1,1,2,2-Tetrachloroethane	0.0066	5.3	0.0018 F	0.00086 F	0.0051	0.012	0.0054	0.0082	0.23	0.017	0.33
1,1,2-Trichloroethane	0.0355	0.0019 F	<0.0048	<0.0048	<0.0063	<0.0055	<0.0054	0.0013 F	0.0033 F	<0.0057	0.0064
1,2-Dichloroethane	0.0189	<0.0035	<0.0029	<0.0029	<0.0038	<0.0033	<0.0033	<0.0028	<0.0038	<0.0034	<0.0032
1,1-Dichloroethene	0.0764	<0.0069	<0.0057	<0.0058	<0.0075	<0.0066	<0.0065	<0.0057	<0.0076	<0.0069	<0.0064
Acetone	-	<0.058	0.012 F B	0.021 F B	<0.063	<0.055	0.023 F	0.031 F	<0.063	<0.057	<0.054
Carbon tetrachloride	0.1086	<0.0058	<0.0048	<0.0048	<0.0063	<0.0055	<0.0054	<0.0047	0.00087 F	<0.0057	0.0021 F
Chloroform	0.4860	<0.0023	<0.0019	<0.0019	<0.0025	<0.0022	<0.0022	0.0018 F	0.12	0.0048	0.55
cis-1,2-Dichloroethene	0.4040	0.0023 F	0.0029 F	<0.0048	0.0011 F	<0.0055	<0.0054	0.0069	<0.0063	<0.0057	0.0013 F
Methylene chloride	0.0169	<0.0058	0.0011 F B	<0.0048	0.0012 F B	<0.0055	<0.0054	0.0022 F	<0.0063	0.0012 F B	<0.0054
Tetrachloroethene	0.0920	0.0011 F	0.0011 F	<0.0048	<0.0063	<0.0055	<0.0054	<0.0047	<0.0063	<0.0057	0.0019 F
trans-1,2-Dichloroethene	0.7910	<0.0058	0.00053 F	<0.0048	<0.0063	<0.0055	<0.0054	0.00098 F	<0.0063	<0.0057	<0.0054
Trichloroethene	0.0932	0.092	0.065	<0.0048	0.033	<0.0055	<0.0054	0.0035 F	0.017	0.00093 F	0.052
Vinyl chloride	0.0150	<0.0058	<0.0048	<0.0048	<0.0063	<0.0055	<0.0054	<0.0047	<0.0063	<0.0057	<0.0054

Bold: Exceeds RG
Bold Underline: Exceeds RG X 10

< Not detected above Reporting Limit (RL)
B: Method Blank contamination
F Estimated result below RL
M Concentration estimated due to matrix effect

TABLE 9
BASELINE FLUVIAL SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte (mg/kg)	Sample ID Depth (ft.)	VP-01-B 5/15/2007	VP-01-M 49 5/15/2007	VP-01-T 59 5/15/2007	VP-02-B 38 5/17/2007	VP-02-M 48 5/17/2007	VP-02-T 58 5/17/2007	VP-03-B 41 5/17/2007	VP-03-M 51 5/17/2007	VP-03-T 61 5/17/2007	VP-04-B 43 5/18/2007
	Date	5/15/2007	5/15/2007	5/15/2007	5/17/2007	5/17/2007	5/17/2007	5/17/2007	5/17/2007	5/17/2007	5/18/2007
	Fluvial RG										
1,1,2,2-Tetrachloroethane	0.0066	<0.0035	<0.0032	<0.0029	0.1 F	0.1 F	0.068	0.079	0.034	0.0086	0.03
1,1,2-Trichloroethane	0.0355	<0.0059	<0.0053	<0.0048	0.0073	0.014	0.0073	0.0012 F	0.0018 F	0.0011 F	<0.0053
1,2-Dichloroethane	0.0189	<0.0035	<0.0032	<0.0029	<0.0033	<0.0032	<0.0031	<0.0033	<0.0034	<0.003	<0.0032
1,1-Dichloroethene	0.0764	<0.0071	<0.0063	<0.0058	<0.0066	<0.0064	<0.0062	<0.0066	<0.0068	<0.006	<0.0063
Acetone	-	<0.059	<0.053	0.0047 F	0.011 F	0.0065 F	0.0082 F	<0.055	0.01 F	<0.05	<0.053
Carbon tetrachloride	0.1086	<0.0059	<0.0053	<0.0048	<0.0055	<0.0053	<0.0052	<0.0055	<0.0056	<0.005	<0.0053
Chloroform	0.4860	<0.0024	<0.0021	0.0017 F	<0.0022	<0.0021	<0.0021	<0.0022	<0.0023	<0.002	<0.0021
cis-1,2-Dichloroethene	0.4040	<0.0059	<0.0053	0.018	0.0071	0.12	0.12	0.0061	0.015	0.073	0.0018 F
Methylene chloride	0.0169	<0.0059	<0.0053	<0.0048	<0.0055	<0.0053	0.001 F B	<0.0055	<0.0056	<0.005	<0.0053
Tetrachloroethene	0.0920	<0.0059	<0.0053	<0.0048	<0.0055	<0.0053	<0.0052	<0.0055	<0.0056	<0.005	<0.0053
trans-1,2-Dichloroethene	0.7910	<0.0059	<0.0053	0.011	<0.0055	0.0081	0.0085	0.00076 F	0.0015 F	0.011	<0.0053
Trichloroethene	0.0932	<0.0059	<0.0053	0.077	0.0053 F M	0.063	0.059	0.01	0.021	0.093	0.0041 F
Vinyl chloride	0.0150	<0.0059	<0.0053	<0.0048	<0.0055	<0.0053	<0.0052	<0.0055	<0.0056	<0.005	<0.0053

Bold: Exceeds RG

Bold Underline: Exceeds RG X 10

<: Not detected above Reporting Limit (RL)

B: Method Blank contamination

F: Estimated result below RL

M: Concentration estimated due to matrix effect

TABLE 9
BASELINE FLUVIAL SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte (mg/kg)	Sample ID Depth (ft.) Date	VP-04-M 53 5/18/2007	VP-04-T 63 5/18/2007	VP-05-B 44 5/21/2007	VP-05-M 54 5/21/2007	VP-05-T 64 5/21/2007	VP-06-B 43 5/22/2007	VP-06-M 53 5/22/2007	VP-06-T 63 5/22/2007	VP-7-B 35 6/11/2007	VP-7-M 45 6/11/2007
Fluvial RG											
1,1,2,2-Tetrachloroethane	0.0066	0.04	0.017	0.34	0.75	0.41	6.1	1.3	1.9	0.018	0.038
1,1,2-Trichloroethane	0.0355	0.0021 F	0.0023 F	<0.005	<0.0055	0.0021 F	0.0042 F	0.0016 F	0.0015 F	<0.0069	0.0012 F
1,2-Dichloroethane	0.0189	<0.0033	<0.0033	<0.003	<0.0033	<0.003	<0.0031	<0.0033	<0.0029	<0.0042	<0.0032
1,1-Dichloroethene	0.0764	<0.0066	<0.0065	<0.006	<0.0066	<0.006	<0.0062	<0.0066	<0.0059	<0.0083	<0.0065
Acetone	-	<0.055	<0.054	<0.05	<0.055	0.0092 F	<0.051	<0.055	<0.049	<0.069	<0.054
Carbon tetrachloride	0.1086	<0.0055	<0.0054	<0.005	<0.0055	<0.005	<0.0051	<0.0055	<0.0049	<0.0069	<0.0054
Chloroform	0.4860	<0.0022	<0.0022	<0.002	<0.0022	0.0014 F	<0.0021	<0.0022	<0.002	<0.0028	<0.0022
cis-1,2-Dichloroethene	0.4040	0.0095	0.0047 F	0.001 F	0.0021 F	0.05	0.023	0.0073	0.0058	<0.0069	0.0033 F
Methylene chloride	0.0169	<0.0055	<0.0054	<0.005	0.0011 F	<0.005	<0.0051	<0.0055	<0.0049	0.0014 F	0.00099 F
Tetrachloroethene	0.0920	<0.0055	<0.0054	<0.005	0.0018 F	0.032	0.0051	0.0011 F	0.002 F J	<0.0069	<0.0054
trans-1,2-Dichloroethene	0.7910	0.001 F	<0.0054	<0.005	0.00051 F	0.013	0.0067	0.0015 F	0.0012 F	<0.0069	<0.0054
Trichloroethene	0.0932	0.015	0.0035 F	0.049	0.091	0.67	0.071 F	0.19	0.18 F	<0.0069	0.00087 F
Vinyl chloride	0.0150	<0.0055	<0.0054	<0.005	<0.0055	<0.005	<0.0051	<0.0055	<0.0049	<0.0069	<0.0054

Bold: Exceeds RG
Bold Underline: Exceeds RG X 10

< Not detected above Reporting Limit (RL)
B Method Blank contamination
F: Estimated result below RL
M. Concentration estimated due to matrix effect

TABLE 9
BASELINE FLUVIAL SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte (mg/kg)	Sample ID Depth (ft.) Date	VP-7-T 55 6/11/2007	VP-8-B 44 6/12/2007	VP-8-M 54 6/12/2007	VP-8-T 64 6/12/2007	VP-9-B 40 6/13/2007	VP-9-M 50 6/12/2007	VP-9-T 60 6/12/2007	VP-10-B 43 6/13/2007	VP-10-M 53 6/13/2007	VP-10-T 63 6/13/2007
Fluvial RG											
1,1,2,2-Tetrachloroethane	0.0066	0.024	0.065	0.15	0.1	0.01	0.042	0.005	0.091	0.049	0.0024 F
1,1,2-Trichloroethane	0.0355	0.0011 F	0.0013 F	0.0039 F	0.002 F	<0.0057	0.0013 F	<0.005	0.0018 F	0.0016 F	<0.0053
1,2-Dichloroethane	0.0189	<0.0034	<0.0034	<0.0031	<0.0032	<0.0034	<0.003	<0.003	<0.0032	<0.0035	<0.0032
1,1-Dichloroethene	0.0764	<0.0069	<0.0068	<0.0061	<0.0064	<0.0069	<0.006	<0.006	<0.0065	<0.0069	<0.0064
Acetone	-	<0.057	<0.057	<0.051	<0.053	<0.057	<0.05	<0.05	<0.054	<0.058	<0.053
Carbon tetrachloride	0.1086	0.00071 F	<0.0057	<0.0051	<0.0053	<0.0057	0.0017 F	0.00054 F	<0.0054	0.00076 F	0.00071 F
Chloroform	0.4860	0.0013 F	<0.0023	0.001 F	<0.0021	<0.0023	0.1	0.025	0.052	0.093	0.048
cis-1,2-Dichloroethene	0.4040	0.017	0.00078 F	0.0032 F	0.00097 F	<0.0057	0.001 F	<0.005	<0.0054	<0.0058	<0.0053
Methylene chloride	0.0169	0.0011 F	<0.0057	<0.0051	<0.0053	<0.0057	<0.005	<0.005	<0.0054	<0.0058	<0.0053
Tetrachloroethene	0.0920	<0.0057	<0.0057	<0.0051	<0.0053	<0.0057	<0.005	0.00091 F	<0.0054	<0.0058	<0.0053
trans-1,2-Dichloroethene	0.7910	0.001 F	<0.0057	<0.0051	<0.0053	<0.0057	<0.005	<0.005	<0.0054	<0.0058	<0.0053
Trichloroethene	0.0932	0.0097	0.0014 F	0.0073	0.0011 F	<0.0057	0.016	0.0052	0.0056	0.012	0.0068
Vinyl chloride	0.0150	<0.0057	<0.0057	<0.0051	<0.0053	<0.0057	<0.005	<0.005	<0.0054	<0.0058	<0.0053

Bold: Exceeds RG

Bold Underline: Exceeds RG X 10

<: Not detected above Reporting Limit (RL)

B: Method Blank contamination

F: Estimated result below RL

M: Concentration estimated due to matrix effect

TABLE 10
 CVOC MASS ESTIMATE IN FLUVIAL SOILS
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Screen Length	Addition to Column	Interval Length	Interval	Total CVOC Results (mg/kg)	Total VOCs per Interval (mg)	Total VOCs per Interval (lbs)	Total VOCs (lbs)	
SVE-A VP-01								
SVE-A	30	10	13.3	Top	0	0.1077	1.4	
			13.3	Mid	0	0	0.0	1.4
			13.3	Bottom	0	0	0.0	
SVE-B VP-02								
SVE-B	30	10	13.3	Top	5.5305	0.2638	77.6	
			13.3	Mid	17.34212	0.3051	236.5	333.3
			13.3	Bottom	1.3159	0.1144	19.2	
SVE-C VP-03 VP-04								
SVE-C	35	10	15	Top	9.8123	0.1867	101.0	
			15	Mid	0.575	0.0733	7.2	115.0
			15	Bottom	0.5393	0.09706	6.8	
SVE-D SVE-E VP-05 VP-06								
SVE-D and E	35	10	15	Top	5.3973	0.0404	174.0	
			15	Mid	13.2525	0.00086	201.8	505.1
			15	Bottom	3.0824	0.07243	129.3	
SVE-F VP-07 VP-08								
SVE-F	35	10	15	Top	0.02488	0.05591	1.9	
			15	Mid	0.0054	0.04436	2.2	5.0
			15	Bottom	0.012	0.0194	1.0	
SVE-G VP-9 VP-10								
SVE-G	35	10	15	Top	0.9437	0.03665	10.5	
			15	Mid	0.02393	0.162	3.4	19.3
			15	Bottom	0.37117	0.01	5.4	
Grand Total						979.0		

Notes:
 SVE-D and SVE-E grouped together.

TABLE 11
GRAIN SIZE ANALYSES - FLUVIAL SOIL SAMPLES
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Location	Depth (feet)	Percent Passing by Sieve Size (inches)								Soil Type
		0.75	0.5	0.375	0.187 (No.4)	0.0787 (No. 10)	0.0165 (No. 40)	0.0059 (No. 100)	0.0029 (No. 200)	
SVE-A	36	100	100	100	100	100	97.2	9.9	8.6	Fine Sand
SVE-A	46	100	100	100	99.6	99.1	90	10	3.9	Fine Sand
SVE-A	56	91.2	85.2	81.4	70.5	57.4	19.3	5.8	4.4	Medium Sand
SVE-B	36	100	100	98.4	97.3	96.9	84.9	8.8	8.3	Fine Sand
SVE-B	46	100	100	100	100	99.9	86.7	2.6	1.3	Fine Sand
SVE-B	56	86.6	78	73.9	64.6	55.9	17.5	7.2	5.7	Medium Sand
SVE-C	39	100	99.2	98.3	96.4	95.8	73.5	6	5.7	Fine Sand
SVE-C	52	97.7	95.6	93.1	87.5	80.6	34.1	8.8	7	Medium Sand
SVE-C	64	100	100	99.7	99.4	98.9	73.2	4.9	2.9	Fine Sand
SVE-D	42	97.7	92.5	87.3	75.3	66.9	41.5	8.8	6.9	Medium Sand
SVE-D	53	100	100	100	100	99.9	98.7	11.8	7.9	Fine Sand
SVE-D	66	98	97.2	96	87.6	74.6	42.6	18.9	13.9	Silty Medium Sand
SVE-E	40	96.6	96.2	93.8	89.8	87	59.8	15.4	12.7	Silty Fine Sand
SVE-E	53	100	99.1	96.3	90	85.3	54.9	5.1	3.7	Fine Sand
SVE-E	65	100	100	99.4	99.3	99.3	91	18.9	13.5	Silty Fine Sand
SVE-F	33	100	96	91.4	79.3	70.9	50.3	17.5	14.3	Silty Fine Sand
SVE-F	45	100	97	93.9	89.9	87.2	55.2	27.9	22.1	Silty Fine Sand
SVE-F	58	98	98	97.6	96.4	94.6	73.6	24.7	19.4	Silty Fine Sand
SVE-G	38	97.1	93.7	91.5	84.9	78.7	52.6	12.8	10.3	Fine Sand
SVE-G	50	91.4	85.3	81.2	75.9	71.4	52.5	12.9	10.6	Fine Sand
SVE-G	63	92.7	87.9	83.9	78.3	73.4	40.5	12.2	9.1	Medium Sand
VP-1	46	100	100	100	100	99.9	92.2	4.4	1.5	Fine Sand
VP-2	53	97.2	92.5	90.2	82.4	69.4	21.3	8.6	6.2	Medium Sand
VP-2B	37	100	100	100	100	99.9	92.2	19.1	14.9	Silty Fine Sand
VP-3A	61	93	90.5	89.4	87.4	85.8	65.6	2.4	1.7	Fine Sand

TABLE 11
GRAIN SIZE ANALYSES - FLUVIAL SOIL SAMPLES
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Location	Depth (feet)	Percent Passing by Sieve Size (inches)								Soil Type
		0.75	0.5	0.375	0.187 (No.4)	0.0787 (No. 10)	0.0165 (No. 40)	0.0059 (No. 100)	0.0029 (No. 200)	
VP-4A	63	100	100	99.4	99.1	98.9	66.6	3.6	1.7	Fine Sand
VP-4B	43	100	99.4	98.8	97.1	95.6	74.2	24	18.8	Silty Fine Sand
VP-5B	43	100	99.5	98.1	96.1	93.5	52	12.1	8.5	Fine Sand
VP-6A	63	94.3	90.3	87.4	82.7	78.6	64.7	8.5	5.6	Fine Sand
VP-6B	43	97.5	91.9	90.7	87.2	83.8	54.2	8.2	6.5	Fine Sand
VP-7A	55	100	100	100	100	100	85.7	9.3	6.5	Fine Sand
VP-7B	35	99.7	95.2	92.3	86.8	83.2	38.7	9.2	7.3	Medium Sand
VP-8A	64	81.1	69.3	62.4	48.6	43.8	28.2	11.2	9.7	Medium Sand
VP-8B	44	100	100	99	96.6	93.4	63	13.7	9.1	Fine Sand
VP-9A	60	100	100	100	99.5	98.1	60.7	6.2	4.4	Fine Sand
VP-9B	40	98.8	91.4	88	79.3	71.5	44.5	16.9	12	Silty Medium Sand
VP-10A	63	86.2	80.3	76.9	70.3	65.6	26.8	6.1	4.7	Medium Sand
VP-10B	43	97.7	93	87.5	74.8	64.1	31.3	11	8.7	Medium Sand

TABLE 12
VACUUM MEASUREMENTS AT VMPs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

VMP ID ⁽¹⁾	VMP-1A	VMP-1B	VMP-2A	VMP-2B	VMP-3A	VMP-3B	VMP-4A	VMP-4B	VMP-5A	VMP-5B	VMP-6A ⁽²⁾	VMP-6B ⁽²⁾	VMP-7A	VMP-7B	VMP-8A	VMP-8B	VMP-9A	VMP-9B	VMP-10A	VMP-10B	Number of Blowers Online
Closest SVE Well and Distance (ft)	SVE-A	SVE-B	SVE-C	SVE-D	SVE-E	SVE-F	SVE-G	SVE-H	SVE-I	SVE-J	SVE-K	SVE-L	SVE-M	SVE-N	SVE-O	SVE-P	SVE-Q	SVE-R	SVE-S	SVE-T	
15.06	21.04	30.68	37.47	30.68	25.52	59.99	59.53	59.53	30.99	31.05	45.01	45.04	15.30	15.23	80.41	80.17	45.19	45.18	60.08	60.50	
Date	Vacuum Reading Recorded (" Hg) ⁽³⁾																				
8/20/07	-5	-5	-6	0 ⁽⁴⁾	-4	-4	0 ⁽⁴⁾	-4	-5	-5	-5	-5	0 ⁽⁴⁾	-9	-5	-4	-4	-4	-3	-3	1
8/20/07	-6	-6	-6	0 ⁽⁴⁾	-4	-5	0 ⁽⁴⁾	-4	-5	-5	-5	-6	0 ⁽⁴⁾	-8	-5	-2	-3	-3	-2	-2	2
8/31/07	-8	-8	-8	-2	-6	-7	0 ⁽⁴⁾	-6	-7	-7	-8	-8	0 ⁽⁵⁾	-10	-6	-4	-4	-4	-4	-4	2
9/7/07	-7	-7	-7	-5	-5.75	-7	-1 ⁽⁴⁾	-5	-7	-8	-7	-7	-1 ⁽⁴⁾	-10	0 ⁽⁴⁾	-4.5	-4	-4	N/R	N/R	2
9/14/07	-8	-7	-8	-3	-6	-7	-5	-6	-8	-8	-8	-8	-10	-10	-6	-4	-4	-4	-4	-4	2
9/17/07	-7	-7	-7	-2	-5	-6	-5	-5	-7	-8	-8	-8	-9	-9	-6	-2	-4	-4	-4	-4	2
11/29/07	-9.6	-9.6	-10	-7.6	-9	-10.8	-8.2	-7.8	-11.2	-11.4	-11.6	-11.5	-13.6	-14.2	-9.6	-3	-6.2	-6.2	-6	-5.6	2
12/6/07	-11	-11	-11.4	-11.4	-10	-12	-9	-9	-12.4	-12.6	-13	-12.8	-15	<-15.0 ⁽⁵⁾	-11.2	-9	-7.6	-7.6	-7.2	-7	2
1/11/08	-11	-11.2	-11.5	-12.4	-10.4	-12.3	-9.8	-9.4	-12.8	-13	-13.2	-13	-14.4	<-15.0 ⁽⁵⁾	-10.8	-9.2	-6.7	-6.6	-6.3	-6.2	2
1/24/08	-11.6	-11.8	-12	-12.2	-10.8	-12.8	-10	-9.8	-13.2	-13.3	-11	-14.6	<-15.0 ⁽⁵⁾	-11.4	-10.2	-7.3	-7.2	-7	-7	-7	2
2/22/08	-6	-6	-7	-7	-6.8	-8	-6.4	-6	-8.8	-8	-9	-9	-8.4	-8.6	-6	-5	-2.8	-3.4	-2.6	-2.4	1
3/6/08	-11.4	-11.6	-12	-12.2	-10.8	-12.6	-10	-9.8	-13	-13	-13.2	-13.2	-14.8	-15	-11.2	-9.4	-7.2	-7	-7	-7	2
3/22/08	-13.4	-13.6	-14.2	-15	-12.6	-14.6	-12	-11.6	-14.8	-14.8	-15	-15	-17.2	-17.6	-14.2	-12.4	-10.2	-10.2	-10.2	-10.2	2
4/01/08 ⁽⁵⁾	-9.2	-9.8	-7.6	-7.8	-10	-12	-9	-8.8	-9.8	-9.4	-8.8	-8.7	-5.6	-5.8	-5.6	-5.4	-5.6	-5.4	-5.4	-5.4	2
4/17/08 ⁽⁶⁾	-6.8	-6.9	-5.2	<-15.0 ⁽⁵⁾	-8.2	-9.6	-7.4	-7.2	-7.9	-7.8	-7.2	-7.2	-4.2	-4.2	-4.2	-4	-4	-4.4	-4.2	-4.2	2
5/13/08	-11.4	-11.8	-11.8	-13.6	-10	-11.2	-8.8	-8.4	-11.4	-11.6	-12	-12	-14	-14.4	-9.8	-8.8	-6	-6.2	-6	-6	2
6/26/08	-12.2	-12.2	-13	-13.4	-10.2	-11.2	-9	-8.8	-11.6	-11.8	-12.2	-12	-9.6	-8.4	-13.4	-13.6	-6.4	-7	-6.2	-6.4	2
7/16/08	-12	-12.2	-13	-13.2	-10.4	-11.8	-9.2	-9	-12	-12.2	-12.7	-12.6	-13.4	-13.6	-10	-8.8	-7.2	-7.6	-7	-7	2
8/25/08	-11.2	-11.5	-12.5	-4.2	-10.1	-11.5	-10.1	-11.5	-10.7	-10.8	-12.1	-12.2	-13.1	-12.9	-10.4	-10.2	-7.1	-7.2	-6.8	-6.4	2
9/26/08	-10.8	-11	-13.1	0 ⁽⁷⁾	-10.9	-10.2	-11.2	-2.8	-10.1	-10.2	-10.2	-11.2	-12.5	-10.1	-9.1	-7.7	-6.5	-6.8	-6.9	-5.8	2
10/17/08	-10.8	-10.5	-11.2	0 ⁽⁷⁾	-8.6	-9.8	-11.5	-5.6	-10	-9.6	-9.8	-9.7	-13	-10	-8.7	-7.7	-6	-6.2	-5.8	-5.8	2
11/11/08	-8.8	-10.2	-9.8	0 ⁽⁷⁾	-9.2	-11	-10.1	-8.2	-9.4	-9.2	-10.2	-9.6	-12	-11.2	-5.5	-6	-3.2	-5.2	-4.8	-2.4	2
12/23/08 ⁽⁸⁾	-7.4	-7.2	-6.4	-4.5	-6.6	-8.6	-4.6	-3.8	-5.2	-5.4	-4.8	-4.6	-6.8	-6.4	-1.5	-1	0	0	0	0	2
1/18/09	-12	-11.4	-11.8	-9.4	-11.2	-10	-9.2	-8	-9.4	-9.7	-9	-8.8	-11.4	-10	-6.8	-6.1	-3.2	-3	-2.6	-2.6	2

NIR = not recorded

(1) = All VMP wells contain 5-foot screen lengths. VMP "A" wells (e.g., VMP-1A) were constructed with a screen located near the bottom of the screen of the associated SVE well.

VMP "B" wells (e.g., VMP-1B) were constructed with a screen located near the top of the screen of the associated SVE well.

(2) = VMP-6A and VMP-6B are located equidistant from SVE -D and SVE-E.

(3) = 0.07353 x in H₂O = in Hg

(4) = Vacuum readings affected by debris lodged in tubing. Debris was removed and tube length shortened by 6 inches on 9/14/07.

(5) = Vacuum reading exceeded gauge span of -15 in Hg.

(6) = Rebound Event #1 occurred from 3/20/08 to 04/17/08. SVE-B, SVE-E, and SVE-F were offline during this period.

(7) = A positive pressure was seen at VMP-2B and is believed to be from steam generation from thermal SVE system.

(8) = Vacuum readings collected shortly after one-day shutdown which may have contributed to lower vacuum readings.

Note: Vacuum gauges with a smaller span used on readings after 1/29/07.

in Hg = inches of mercury

in H₂O = inches of water

Shaded Cells indicate SVE well offline

TABLE 13
PID MEASUREMENTS AT FLUVIAL SVE WELLS AND TREATMENT SYSTEM
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Sample Location									
	SVE-A	SVE-B	SVE-C	SVE-D	SVE-E	SVE-F	SVE-G	SVE-INF	SVE-MID	SVE-EFF
	PID Measurement (ppm) ⁽¹⁾									
7/26/2007	3863	>10000 ⁽²⁾	>10000 ⁽²⁾	2188	>10000 ⁽²⁾	2196	>10000 ⁽²⁾	>10000 ⁽²⁾	510	5.7
7/27/2007	105	1230	927	1861	1193	11.4	108	1091	3.6	0
7/28/2007	59.1	575	417	835	741	38.1	262	538	598	0.2
7/29/2007	53	432	445	667	550	31.1	205	486	554	0.1
7/30/2007	27.3	229	290	399	356	27.6	168	279	570	2.7
7/31/2007	22.7	186	246	338	285	24.6	131	242	528	72.4
8/1/2007	19.1	157	224	288	256	24.4	127	187	560	299
8/15/2007	7.5	153	210	271	234	22.6	131	152	18.1	9.4
8/16/2007	10.3	74.8	164	231	134	19.7	108	116	0	0
8/17/2007	10.2	94.4	140	208	118	16.9	92.4	120	4.7	2.1
8/20/2007	7.4	58.8	111	128	96.0	12.9	67.6	89.5	34.7	0.7
8/21/2007	8.5	38.5	73.8	95	112	12.7	65.1	68.0	37.9	0.6
8/22/2007	7.8	51.2	94.3	105	114	13.5	65.0	78.0	42.6	0.4
8/23/2007	5.6	37.0	84.0	86.8	99.1	12.9	63.8	74.3	74.1	0.1
8/27/2007	4.5	26.2	60.2	92.5	55.9	8.5	33.4	61.1	46.1	1.4
8/28/2007	4.4	28.3	59.8	87.4	61.3	7.4	27.5	59.1	56.1	0.6
8/29/2007	3.9	26.4	57.9	42.3	38.2	6.9	26.1	53.7	53.8	1.4
8/31/2007	5.0	29.7	55.5	67.0	43.3	0.6	32.0	60.9	62.9	11.1
9/4/2007	4.1	28.1	27.9	68.0	18.9	5.8	24.9	44.8	45.2	19.3
9/5/2007	3.8	24.7	50.3	67.7	38.8	7.9	27.6	39.9	46.6	15.1
9/7/2007	2.4	9.6	16.4	29.1	16.3	3.8	12.7	34.5	45.9	15.3
9/14/2007	3.0	16.6	23.1	44.5	25.6	6.1	18.7	24.4	31.3	16.3
9/19/2007	2.4	20.4	27.1	8.2	28.8	2.9	14.5	21.3	30.7	27.4
9/28/2007	2.3	19.0	13.1	35.1	18.6	3.5	16.4	12.1	23.3	32.2
10/5/2007	2.2	21.2	30.9	32.4	17.0	3.7	13.8	20.8	27.5	29.5
10/11/2007	2.7	23.0	9.9	18.7	13.2	0.5	12.8	22.6	N/C ⁽³⁾	N/C ⁽³⁾
10/18/2007	1.3	14.0	20.3	14.8	10.3	1.8	3.5	14.3	N/C	N/C
10/25/2007	1.7	15.2	21.2	19.1	10.7	1.5	12.4	17.4	N/C	N/C
11/1/2007	2.0	14.5	24.0	21.2	1.7	4.2	15.6	17.4	N/C	N/C
11/9/2007	1.2	21.9	22.3	21.3	8.2	1.5	10.7	16	N/C	N/C
11/15/2007	1.8	23.8	21.5	21.1	12.7	1.7	10.0	9.3	N/C	N/C
11/21/2007	2.6	27.6	23.4	22	9.6	2.7	10.2	17.9	N/C	N/C
11/29/2007	2.2	31.1	34.1	18.7	10.9	1.7	16.2	25.7	N/C	N/C
12/6/2007	1.7	24.9	18.5	8.4	6.1	3.5	6.8	20.2	N/C	N/C
12/21/2007	5.4	46.1	31.4	14.5	6.4	0.7	12.3	28.1	N/C	N/C
12/28/2007	1.2	65.9	33.8	9.8	4.3	1.1	15.4	23.4	N/C	N/C
1/4/2008	0.9	41.6	19.1	1.5	3.2	0.3	20	22.5	N/C	N/C
1/11/2008	1.2	61.0	37.5	24.4	5.3	2.3	9.8	20	N/C	N/C
1/17/2008	7.6	27.6	3.7	6.7	1.9	8.0	7.5	18.8	N/C	N/C
1/24/2008	1.8	67.8	10.9	2.2	2.8	0.4	7.6	26.1	N/C	N/C
2/1/2008	0.8	48.9	13.3	4.6	2.1	1.0	8.1	20.9	N/C	N/C
2/8/2008	0.8	31.8	18.4	5.8	1.7	2.4	17.5	6.6	N/C	N/C
2/15/2008	0.9	17.7	5.3	3.9	1.4	0.6	12.4	15.5	N/C	N/C
2/22/2008	0.7	48.6	8.3	4.8	2.3	1.0	13.0	15.8	N/C	N/C
2/29/2008	27.3	39.2	21.5	14.4	5.6	3.1	5.4	17.9	N/C	N/C
3/6/2008	0.3	28.5	13.8	4.2	7.3	0.3	13.2	12.1	N/C	N/C
3/14/2008	13.8	37.3	22.4	16.8	N/C ⁽⁴⁾	17.1	17.5	25.8	N/C	N/C
3/20/2008 ⁽⁵⁾	0.7	N/C	26.1	0.7	N/C	N/C	0.4	10.4	N/C	N/C
3/27/2008 ⁽⁵⁾	0.0	N/C	21.6	4.0	N/C	N/C	0.0	6.2	N/C	N/C
4/3/2008 ⁽⁵⁾	9.3	N/C	15.4	5.2	N/C	N/C	8.1	10.6	N/C	N/C
4/10/2008 ⁽⁵⁾	3.1	N/C	5.7	0.9	N/C	N/C	8.2	6.2	N/C	N/C
4/18/2008	5.1	103	12.7	4.0	0.4	0.5	5.2	34.5	N/C	N/C
4/24/2008	0.4	31.7	7.2	4.8	2.5	0.6	8.7	13.5	N/C	N/C
5/2/2008	0.3	22.0	18.6	2.7	1.6	0.3	8.9	10.3	N/C	N/C
5/8/2008	0.7	27.2	9.5	3.8	1.6	0.6	11.1	9.8	N/C	N/C
5/13/2008	0.6	24.4	14	3.8	7.3	0.6	20.3	16.4	N/C	N/C
5/15/2008	0.5	17.8	5.1	2.4	1.9	0.7	5.4	8.6	N/C	N/C

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TABLE 13
PID MEASUREMENTS AT FLUVIAL SVE WELLS AND TREATMENT SYSTEM
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Sample Location									
	SVE-A	SVE-B	SVE-C	SVE-D	SVE-E	SVE-F	SVE-G	SVE-INF	SVE-MID	SVE-EFF
	PID Measurement (ppm) ⁽¹⁾									
5/22/2008	0.4	7.7	7.3	3.9	1.6	0.5	7.3	8.1	N/C	N/C
5/30/2008	0.3	7.0	7.1	1.5	1.1	0.3	1.2	3.7	N/C	N/C
6/5/2008	1.4	4.7	3.8	2.6	1.4	1.3	1.7	2.9	N/C	N/C
6/13/2008	0.6	5.6	5.6	6.5	2.3	0.7	1.3	3.6	N/C	N/C
6/19/2008	0.5	6.9	0.4	11	0.9	0.4	1.2	5.6	N/C	N/C
6/26/2008 ⁽⁶⁾	0.0	0.0	0.0	14.1	1.8	0.6	0.9	4.2	N/C	N/C
6/30/2008	0.6	9.2	14.4	22.8	5.4	0.9	1.9	11.4	N/C	N/C
7/3/2008	0.3	8.7	10.7	6.8	1.1	0.3	1.0	10.0	N/C	N/C
7/11/2008	0.3	13.9	16.5	39.9	0.9	0.7	1.8	13.7	N/C	N/C
7/16/2008	0.4	22.7	15.6	54.5	0.9	1.6	2.6	17.6	N/C	N/C
7/18/2008	0.8	25.9	22.3	76.8	2.1	2.9	4.9	23.8	N/C	N/C
7/24/2008	1.5	29.1	15.8	70.3	5.0	1.8	7.5	22.8	N/C	N/C
8/1/2008	0.6	40.4	10.0	48.4	2.5	1.4	8.8	21.8	N/C	N/C
8/7/2008	1.5	34.0	13.4	53.5	1.8	1.3	10.0	23.9	N/C	N/C
8/14/2008	1.0	38.1	15.3	110	1.5	1.8	21.9	29.0	N/C	N/C
8/20/2008 ⁽⁷⁾	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/C	N/C
8/29/2008	56.5	88.4	16.3	111	2.8	6.7	58.9	20.6	N/C	N/C
9/4/2008	73.7	92.9	24.1	179	0.6	1.4	69.5	34.9	N/C	N/C
9/12/2008	N/R ⁽⁶⁾	80.3	33.2	114	3.3	4.6	N/R ⁽⁸⁾	23.4	N/C	N/C
9/19/2008	2.4	70.6	31.3	106	5.5	2.6	53.2	52.2	N/C	N/C
9/26/2008	2.3	93.8	26.4	159	3.4	1.9	129	76.7	N/C	N/C
10/2/2008	2.0	27.2	36.1	312	1.8	1.7	74.3	95.3	N/C	N/C
10/10/2008	1.9	21.0	34.7	54.8	3.0	2.1	25.2	33.9	N/C	N/C
10/17/2008	1.3	32.9	60.0	81.5	6.2	4.8	24.2	44.3	N/C	N/C
10/23/2008	2.1	33.7	60.6	56.4	4.7	3.4	12.2	33.6	N/C	N/C
10/31/2008	4.0	18.1	37.5	17.0	1.4	4.0	38.1	15.5	N/C	N/C
11/7/2008	2.7	10.5	28.7	8.2	2.3	3.5	7.1	10.4	N/C	N/C
11/14/2008	4.6	10.6	160	13.7	4.7	4.5	2.3	34.2	N/C	N/C
11/21/2008	2.1	13.2	133	9.9	2.4	3.7	1.7	36.5	N/C	N/C
11/26/2008	2.2	9.1	48.1	5.3	2.4	4.2	N/R ⁽⁸⁾	16.7	N/C	N/C
12/4/2008	1.8	9.9	29.0	3.9	1.7	3.2	N/R ⁽⁸⁾	13.4	N/C	N/C
12/12/2008	2.4	14.3	28.7	2.9	1.2	2.3	N/R ⁽⁸⁾	11.8	N/C	N/C
12/18/2008	2.4	14.3	14.8	3.9	1.4	3.1	N/R ⁽⁸⁾	8.3	N/C	N/C
12/23/2008	1.2	13.0	1.8	2.5	1.2	2.2	N/R ⁽⁸⁾	6.2	N/C	N/C
12/31/2008	2.1	11.8	4.9	2.7	0.8	1.9	N/R ⁽⁸⁾	5.7	N/C	N/C
1/9/2009	2.1	11.1	3.8	2.0	1.8	3.0	N/R ⁽⁸⁾	5.2	N/C	5.8
1/16/2009	0.5	9.2	3.3	2.7	0.8	3.8	14.5	N/R ⁽⁹⁾	N/C	N/C
1/19/2009	1.9	8.7	3.0	2.6	1.6	2.3	7.0	3.7	N/C	N/C
1/30/2009	0.8	6.9	2.4	1.3	0.9	2.0	N/R ⁽⁸⁾	2.9	N/C	N/C
2/6/2009	1.1	4.7	2.5	1.7	0.8	2.6	6.0	3.1	N/C	N/C
2/13/2009	1.5	8.9	2.4	1.7	1.5	3.0	N/R ⁽⁸⁾	3.3	N/C	N/C

(1) = Photo Ionization Detector (PID) manufactured by RAE System (Model: MiniRAE 2000) with a 10.6 eV lamp.

(2) = Influent stream exceeded maximum range of PID meter (10,000 ppm).

(3) = PID reading not collected as treatment system was taken offline following 5 October 2007 readings.

(4) = SVE-E damaged during other onsite remedial action activities and was offline during 3/14/08 inspection. No reading collected.

(5) = Rebound Event #1 occurred from 3/20/08 to 04/17/08 SVE-B, SVE-E, and SVE-F were offline during this period

(6) = PID readings believed to be in error due to malfunctioning PID. Readings recollected on 6/30/08.

(7) = PID readings not recorded on 08/20/08 due to inoperable meter.

(8) = Field PID reading not able to be recorded due to excess water in manifold piping

(9) = Field PID reading not able to be recorded due to frozen sample port from cold weather

ppm parts per million

PID, photoionization detector

TABLE 14
PID MEASUREMENTS AT FLUVIAL VMPs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

VMP ID ⁽²⁾	Closest SVE Well	Distance from Closest SVE Well (ft)	8/20/2007 ⁽³⁾	11/29/2007 ⁽³⁾	12/16/2007 ⁽⁴⁾	01/11/08 ⁽⁴⁾	01/24/08 ⁽⁴⁾	02/22/08 ⁽⁴⁾	03/20/08 ⁽⁴⁾⁽⁵⁾	04/03/08 ⁽⁴⁾	04/10/08 ⁽⁴⁾	04/17/08 ⁽⁴⁾	07/16/08 ⁽⁴⁾	10/17/2008 ⁽⁴⁾	1/20/09 ⁽⁴⁾
VMP-1A	SVE-A	15.06	4,783	0.1	1.7	0.0	0.0	0.0	0.0	N/C	N/C	1.3	1.3	0.0	1.4
VMP-1B	SVE-A	21.04	3,194	4.3	0.3	0.9	1.3	0.2	0.0	N/C	N/C	16.0	2.0	1123	1.8
VMP-2A	SVE-B	30.68	1,078	1.2	0.8	0.2	0.6	0.0	0.0	0.0	0.5	0.6	0.6	227	1.8
VMP-2B	SVE-B	37.47	>10,000 ⁽⁶⁾	34.5	22.7	31.6	143	0.0	42.2	217	135	316	713	— ⁽⁷⁾	75.4
VMP-3A	SVE-C	30.68	103	1.2	1.8	0.5	0.7	0.4	0.0	N/C	N/C	0.8	1.8	6.5	5.4
VMP-3B	SVE-C	25.52	4,509	847	619	398	645	50.0	1.47	N/C	N/C	43.4	>10,000 ⁽⁶⁾	793	84.4
VMP-4A	SVE-C	59.99	98.2	1.7	1.4	0.2	0.6	0.7	0.0	N/C	N/C	1.4	2.3	0.5	0.8
VMP-4B	SVE-C	59.53	386	68.6	62.2	23.1	23.2	37.7	0.0	N/C	N/C	9.9	6.0	73.9	128
VMP-5A	SVE-D	30.99	1,484	4.4	3.5	1.7	2	2.63	0.5	N/C	N/C	9.9	5.0	1.1	1.0
VMP-5B	SVE-D	31.05	82.3	94.1	79.2	54.2	56.3	28.9	12.6	N/C	N/C	7.0	606	56.8	5.5
VMP-6A	SVE-E	45.01	989	15.4	11.5	4.17	3.6	7.4	0.0	0.0	0.0	0.2	2.3	4.1	2.3
VMP-6B	SVE-E	45.04	3,320	482	459	666	470	1,277	406	302	85.5	112	2,990	1,429	12.4
VMP-7A	SVE-F	15.30	14.6	2.2	1.8	0.1	0.2	1.7	0.0	0.0	0.3	3.6	3.7	55.3	4.9
VMP-7B	SVE-F	15.23	11.7	3.9	3.1	3.0	2.1	3.9	1.1	0.0	0.0	3.9	55.6	15.5	2.5
VMP-8A	SVE-F	80.41	450	0.3	0.4	0.0	0.2	1.6	0.0	0.0	0.0	0.7	4.6	3.7	1.7
VMP-8B	SVE-F	80.17	80.6	28.8	33.3	7.2	5.0	5.1	0.5	19.7	1.2	4.4	16.8	80.5	41.6
VMP-9A	SVE-G	45.19	2.3	1.2	1.2	1.3	0.7	1.9	0.0	N/C	N/C	2.7	4.1	6.1	3.0
VMP-9B	SVE-G	45.18	84.3	119	126	54.3	49.4	51.3	11.3	N/C	N/C	23.1	2.6	5.8	10.1
VMP-10A	SVE-G	60.08	2.1	0.4	0.3	0.1	0.1	0.7	0.0	N/C	N/C	0.7	3.2	2.6	1.1
VMP-10B	SVE-G	60.50	27.2	2.8	3.8	11.1	18.8	27.4	3.73	N/C	N/C	2.2	2.3	2.7	3.7

(1) Photo Ionization Detector (PID) manufactured by RAE Systems (Model MiniRAE 2000) with a 10.6 eV lamp

(2) All VMP wells contain 5-foot screen lengths. VMP "A" wells (e.g., VMP-1A) were constructed with a screen located near the bottom of the screen of the associated SVE well. VMP "B" wells (e.g., VMP-1B) were constructed with a screen located near the top of the screen of the associated SVE well.

(3) Measurements collected prior to system startup

(4) Measurements collected while system offline. System offline for two hours prior to collection of PID readings

(5) Measurements collected prior to shut down of SVE wells as part of rebound study

(6) Influent stream exceeded maximum range of PID meter (10,000 ppm).

(7) PID readings unable to be collected as extract vapor was too hot and began melting the teflon bag

N/C - Rebound Event #1 occurred from 3/20/08 to 04/17/08. PID readings only collected on VMPs associated with those offline wells. No PID readings collected from

VMP-1A/B, VMP-3A/B, VMP-4A/B, VMP-5A/B, VMP-9A/B, and VMP-10A/B

ppm parts per million

TABLE 15
FLUVIAL SVE TREATMENT SYSTEM, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
	Date	7/25/2007	8/3/2007	8/16/2007	8/23/2007	9/19/2007	1/17/2008	4/24/2008	
	Units								
1,1,2,2-Tetrachloroethane	ppb/V	290000	14000	25000	8500	610	1000	1800	
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<2300	<580	<490	<130	34 J	160	74	
1,1,2-Trichloroethane	ppb/V	4200	390 J	370 J	110 J	<96	<95	24 J	
1,1-Dichloroethene	ppb/V	<2300	<580	<490	<130	100	110	120	
1,2,4-Trimethylbenzene	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
1,3,5-Trimethylbenzene	ppb/V	<2300	<580	<490	<130 J	<96	<95	<54	
1,4-Dichlorobenzene	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
Benzene	ppb/V	<2300	<580	<490	<130	<96	29 J	<54	
Carbon tetrachloride	ppb/V	4900	<580	590	750	530	340	160	
Chlorobenzene	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
Chloroform	ppb/V	53000	14000	9800	4000	2300	3100	2200	
Chloromethane	ppb/V	<5700	<1400	<1200	<340	<240	<240	<140	
cis-1,2-Dichloroethene	ppb/V	220000	20000	12000	3500	2400	3500	3100	
Dichlorodifluoromethane	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
Ethylbenzene	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
Methylene chloride	ppb/V	790 J,B	310 J,B	170 J,B	120 J	52 J	100 J,B	27 J,B	
m-Xylene & p-Xylene	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
o-Xylene	ppb/V	<2300	<580	<490	<130	<96	<95	<54	
Tetrachloroethene	ppb/V	19000	1700	1400	530	260	330	170	
Toluene	ppb/V	<2300	220 J	<490	<130	82 J	39 J	<54	
Trichloroethene	ppb/V	670000 B	70000 B	51000	14000	8500	11000	7400	
Vinyl chloride	ppb/V	1300 J	<580	320 J,B	280 B	100	290	180	

<: Not detected above Reporting Limit (RL)

J: Estimated results based on QC data or reported below RL

B: Estimated results possibly biased high or false positive based on blank data

TABLE 15
FLUVIAL SVE TREATMENT SYSTEM, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	INFLUENT 7/16/2008	INFLUENT 10/17/2008	INFLUENT 1/19/2009	MID-BED 7/25/2007	MID-BED 8/3/2007	MID-BED 8/16/2007	MID-BED 8/23/2007
	Units							
1,1,2,2-Tetrachloroethane	ppb/V	2700	6500	29	1.8	<1800	0.21	<660
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	24 J	<110	18	<0.2	<1800	<0.2	<660
1,1,2-Trichloroethane	ppb/V	25 J	66 J	15	<0.2	<1800	<0.2	<660
1,1-Dichloroethane	ppb/V	58 J	63 J	34	<0.2	<1800	<0.2	<660
1,2,4-Trimethylbenzene	ppb/V	<62	540	<8.4	0.14 J	<1800	0.092 J	<660
1,3,5-Trimethylbenzene	ppb/V	<62	220	<8.4	<0.2	<1800	<0.2	<660 J
1,4-Dichlorobenzene	ppb/V	<62	<110	<8.4	0.087 J	<1800	<0.2	<660
Benzene	ppb/V	28 J	100 J	7.1 J	2.3	<1800	0.42	<660
Carbon tetrachloride	ppb/V	15 J	24 J	17	<0.2	2300	<0.2	2100
Chlorobenzene	ppb/V	<62	<110	<8.4	0.2	<1800	0.13 J	<660
Chloroform	ppb/V	420	2000	970	<0.2	20000	3.7	10000
Chloromethane	ppb/V	<160	100 J	<21	0.58	<4400	<0.5	<1600
cis-1,2-Dichloroethene	ppb/V	1400	2200	350	<0.3	26000	10	7700
Dichlorodifluoromethane	ppb/V	<62	<110	4 J	<0.2	<1800	0.53	<660
Ethylbenzene	ppb/V	<62	140	<8.4	1	<1800	1.2	<660
Methylene chloride	ppb/V	77 J, B	320 J, B	21	0.74 B	560 J, B	5.4 B	260 J
m-Xylene & p-Xylene	ppb/V	<62	520	<8.4	5.4	<1800	7.1	<660
o-Xylene	ppb/V	<62	150	<8.4	3.2	<1800	6.4	<660
Tetrachloroethene	ppb/V	140	200	18	0.07 J	<1800	0.22	<660
Toluene	ppb/V	<62	57 J	<8.4	0.54	<1800	0.15 J	<660
Trichloroethene	ppb/V	6800	15000	580	0.88	180000 B	28	42000
Vinyl chloride	ppb/V	97	<110	18	<0.2	<1800	33 B	2300 B

<: Not detected above Reporting Limit (RL)

J: Estimated results based on QC data or reported below RL

B: Estimated results possibly biased high or false positive based on blank data

TABLE 15
FLUVIAL SVE TREATMENT SYSTEM, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	MID-BED 9/19/2007	EFFLUENT 7/25/2007	EFFLUENT 8/3/2007	EFFLUENT 8/16/2007	EFFLUENT 8/23/2007	EFFLUENT 9/19/2007	EFFLUENT 10/18/2007
Units								
1,1,2,2-Tetrachloroethane	ppb/V	83 J	0.58	<1100	<0.2	0.58	70 J	3100
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<170	<0.2	<1100	0.049 J	<0.2	<170	170
1,1,2-Trichloroethane	ppb/V	<170	<0.2	<1100	<0.2	<0.2	<170	<100
1,1-Dichloroethene	ppb/V	110 J	<0.2	<1100	<0.2	<0.2	80 J	110
1,2,4-Trimethylbenzene	ppb/V	<170	0.098 J	<1100	0.066 J	<0.2	<170	<100
1,3,5-Trimethylbenzene	ppb/V	<170	<0.2	<1100	<0.2	<0.2 J	<170	<100
1,4-Dichlorobenzene	ppb/V	<170	0.24	<1100	<0.2	<0.2	<170	<100
Benzene	ppb/V	<170	0.66	<1100	<0.2	0.079 J	<170	<100
Carbon tetrachloride	ppb/V	610	<0.2	<1100	<0.2	0.038 J	790	380
Chlorobenzene	ppb/V	<170	<0.2	<1100	<0.2	<0.2	<170	<100
Chloroform	ppb/V	2500	<0.2	37000	0.87	1.5	3100	2000
Chloromethane	ppb/V	<430	<0.5	<2700	<0.5	0.16 J	<430	<250
cis-1,2-Dichloroethene	ppb/V	2400	<0.3	170000	2.8	8.1	3200	1600
Dichlorodifluoromethane	ppb/V	<170	<0.2	<1100	0.5	0.34	<170	<100
Ethylbenzene	ppb/V	<170	0.36	<1100	0.14 J	0.091 J	<170	<100
Methylene chloride	ppb/V	110 J	0.15 J,B	610 J,B	0.071 J,B	3.3	130 J	72 J,B
m-Xylene & p-Xylene	ppb/V	<170	1.7	<1100	0.79	0.49	<170	<100
o-Xylene	ppb/V	<170	0.88	<1100	0.66	0.4	<170	<100
Tetrachloroethene	ppb/V	<170	<0.2	<1100	0.71	0.08 J	<170	470
Toluene	ppb/V	54 J	0.79	<1100	0.088 J	0.16 J	<170	<100
Trichloroethene	ppb/V	16000	0.61 B	650 J,B	0.26	1.6	12000	8100
Vinyl chloride	ppb/V	130 J	<0.2	<1100	24 B	26 B	120 J	91 J

<: Not detected above Reporting Limit (RL)

J: Estimated results based on QC data or reported below RL

B: Estimated results possibly biased high or false positive based on blank data

TABLE 16
FLUVIAL SVE WELLS, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-A 7/25/2007	SVE-A 8/23/2007	SVE-A 9/19/2007	SVE-A 10/18/2007	SVE-A 1/17/2008	SVE-A 4/24/2008	SVE-A 8/14/2008 with trap	SVE-A 10/28/2008 with trap
Units									
1,1,1,2,2-Tetrachloroethane	ppbV	410	13	4.4 J	14	730	76	4.4	5.2
1,1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	<1.8
1,1,1,2-Trichloroethane	ppbV	<330	<4.9	<7.5	1.7 J	<50	<2	<2	<1.8
1,1-Dichloroethane	ppbV	220 J	51	270	130	55	6.3	<2	<1.8
1,2,4-Trimethylbenzene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	<1.8
1,2-Dichloroethane	ppbV	270 J	<4.9	4.2 J	2.5	<50	<2	<2	<1.8
1,3,5-Trimethylbenzene	ppbV	<330	<4.9 J	<7.5	<2.3	<50	<2	<2	<1.8
1,4-Dichlorobenzene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	0.69 J	<1.8
Benzene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	0.77
Carbon tetrachloride	ppbV	720	480	1400	680	850	76	<2	<1.8
Chlorobenzene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	<1.8
Chloroform	ppbV	850	1600 J	7200	4200	5300	4800	6.7	5
Chloromethane	ppbV	<830	6 J	<19	<5.7	<120	<5	<5	<4.6
cis-1,2-Dichloroethane	ppbV	10000	210	240	120	140	21	1.2 J	6.8
Dichlorodifluoromethane	ppbV	<330	6	<7.5	<2.3	<50	<2	<2	<1.8
Ethylbenzene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	<1.8
Methylene chloride	ppbV	130 J,B	1.8 J	2.4 J	1 J,B	30 J,B	1.1 J,B	3.2 J,B	1.8
m-Xylene & p-Xylene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	<1.8
o-Xylene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	<2	<1.8
Tetrachloroethene	ppbV	590	120	420	260	190	22	1.9 J	3.8
Toluene	ppbV	<330	<4.9	<7.5	<2.3	<50	<2	0.99 J	0.81
Trichloroethene	ppbV	38000	700	1600	1100	720	94	13	12
Trichlorofluoromethane	ppbV	<330	1.1 J	1.1 J	0.33 J	<50	<2	0.49 J	0.24
Vinyl chloride	ppbV	<330	220 B	3.4 J	<2.3	<50	<2	<2	<1.8

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Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-A 2/4/2009 with trap	SVE-B 7/25/2007	SVE-B 8/23/2007	SVE-B 9/19/2007	SVE-B 10/18/2007	SVE-B 1/17/2008	SVE-B 4/3/2008	SVE-B 4/18/2008
Units									
1,1,2,2-Tetrachloroethane	ppbV	65	230	14	1.9	3.3	10	2.3	1.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<2	<4	0.079 J	0.11 J	0.18 J	0.83	0.21	0.17 J
1,1,2-Trichloroethane	ppbV	0.56	2.8 J	0.15 J	<0.2	<0.2	<0.8	<0.2	<0.2
1,1-Dichloroethene	ppbV	1.3	<4	<0.2	0.11 J	<0.2	0.67 J	0.07 J	0.043 J
1,2,4-Trimethylbenzene	ppbV	<2	<4	0.07 J	<0.2	<0.2	<0.8	0.13 J	0.21
1,2-Dichloroethane	ppbV	<2	<4	<0.2	<0.2	<0.2	<0.8	<0.2	<0.2
1,3,5-Trimethylbenzene	ppbV	<2	<4	<0.2 J	<0.2	<0.2	<0.8	<0.2	<0.2
1,4-Dichlorobenzene	ppbV	<2	<4	<0.2	<0.2	<0.2	<0.8	<0.2	0.099 J
Benzene	ppbV	0.95	<4	0.13 J	0.17 J	0.14 J	0.53 J	0.49	0.42
Carbon tetrachloride	ppbV	0.76	5.9	0.94	0.8	0.36	2.2	0.25	0.15 J
Chlorobenzene	ppbV	<2	<4	<0.2	<0.2	<0.2	<0.8	<0.2	<0.2
Chloroform	ppbV	89	52	4.7	3.8	1.6	16	0.75	0.6
Chloromethane	ppbV	<5	<10	0.54	0.71	0.73	<2	0.81	0.82
cis-1,2-Dichloroethene	ppbV	59	210	4.1	4.7	1.2	17	6.4	2.7
Dichlorodifluoromethane	ppbV	<2	<4 J	0.5	0.5	0.43	0.58 J	0.62	0.64
Ethylbenzene	ppbV	<2	<4	0.075 J	<0.2	0.5	<0.8	0.098 J	0.19 J
Methylene chloride	ppbV	4	29 B	0.13 J	0.15 J	0.2 J B	0.63 J B	0.26 J	0.27 J B
m-Xylene & p-Xylene	ppbV	1.4	<4	0.31	0.14 J	1.6	<0.8	0.34	0.5
o-Xylene	ppbV	<2	<4	0.1 J	0.07 J	0.51	<0.8	0.14 J	0.19 J
Tetrachloroethene	ppbV	9.3	16	0.72	0.21	0.78	2.5	0.19 J	0.12 J
Toluene	ppbV	<2	<4	0.31	0.3	0.38	0.6 J	2.6	0.84
Trichloroethene	ppbV	36	960 B	17	15	6	51	7.8	5.6
Trichlorofluoromethane	ppbV	<2	0.74 J	0.27	0.23	0.2	0.28 J	0.32	0.31
Vinyl chloride	ppbV	0.74	<4	4.2 B	0.12 J	0.095 J	1.6	0.47	0.21

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TABLE 16
FLUVIAL SVE WELLS, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-B 4/24/2008	SVE-B 4/24/2008	SVE-B 7/16/2008	SVE-B 10/17/2008	SVE-B 1/19/2009	SVE-B 2/4/2009 with trap	SVE-C 7/25/2007	SVE-C 8/23/2007
Units									
1,1,2,2-Tetrachloroethane	ppbV	1.5	0.32	9.8	2.8	<2	0.76	110000	23000
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	0.13 J	0.13 J	<2	<2	<2	1.2	<6100	<430
1,1,2-Trichloroethane	ppbV	<0.2	<0.2	<2	<2	<2	<2	6600	620
1,1-Dichloroethene	ppbV	<0.2	0.063 J	<2	<2	<2	1.6	<6100	<430
1,2,4-Trimethylbenzene	ppbV	0.19 J	<0.2	<2	<2	<2	<2	<6100	<430
1,2-Dichloroethane	ppbV	<0.2	<0.2	<2	<2	<2	<2	2400 J	110 J
1,3,5-Trimethylbenzene	ppbV	<0.2	<0.2	<2	<2	<2	<2	<6100	<430 J
1,4-Dichlorobenzene	ppbV	0.1 J	<0.2	<2	<2	<2	<2	<6100	<430
Benzene	ppbV	0.69	0.36	0.57 J	0.72	<2	<2	<6100	<430
Carbon tetrachloride	ppbV	0.12 J	0.17 J	<2	<2	<2	<2	<6100	<430
Chlorobenzene	ppbV	<0.2	0.58	<2	<2	<2	<2	<6100	<430
Chloroform	ppbV	0.48	0.67	19 J	5.9	<2	1.2	4400 J	330 J
Chloromethane	ppbV	0.8	1.1	<5	<5	<5	<2	<15000	<1100
cis-1,2-Dichloroethene	ppbV	1.3	1	6	7.1	<3	8.2	450000	17000
Dichlorodifluoromethane	ppbV	0.65	0.69	<2	<2	<2	<2	<6100 J	<430
Ethylbenzene	ppbV	0.15 J	<0.2	<2	<2	<2	<2	<6100	<430
Methylene chloride	ppbV	0.52 B	0.98	1.5 J,B	2.5	1.3	4	2200 J,B	190 J
m-Xylene & p-Xylene	ppbV	0.56	<0.2	<2	<2	<2	<2	<6100	<430
o-Xylene	ppbV	0.22	<0.2	<2	<2	<2	<2	<6100	<430
Tetrachloroethene	ppbV	0.062 J	0.094 J	0.55 J	<2	<2	0.84	10000	1000
Toluene	ppbV	0.97	3.5	0.85 J	0.65	<2	<2	<6100	<430
Trichloroethene	ppbV	2	2.6	24	45	<2	14	1300000 B	37000
Trichlorofluoromethane	ppbV	0.3	0.32	<2	<2	<2	<2	<6100	59 J
Vinyl chloride	ppbV	<0.2	0.077 J	<2	<2	<2	1.9	<6100	1400 B

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FLUVIAL SVE WELLS, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-C 9/19/2007	SVE-C 10/18/2007	SVE-C 1/17/2008	SVE-C 4/24/2008	SVE-C 7/16/2008	SVE-C 10/17/2008	SVE-D 7/25/2007	SVE-D 8/23/2007
Units									
1,1,2,2-Tetrachloroethane	ppbV	1900	3200	410	500	20000	9400	140000	26000
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<80	<200	<170	<99	<58	<260	<2500	<250
1,1,2-Trichloroethane	ppbV	<80	<200	<170	<99	210	140	<2500	<250
1,1-Dichloroethene	ppbV	<80	<200	<170	31 J	<58	120	<2500	<250
1,2,4-Trimethylbenzene	ppbV	<80	<200	<170	<99	<58	1900	<2500	<250
1,2-Dichloroethane	ppbV	<80	<200	<170	<99	37 J	<260	<2500	<250
1,3,5-Trimethylbenzene	ppbV	<80	<200	<170	<99	<58	760	<2500	<250 J
1,4-Dichlorobenzene	ppbV	<80	<200	<170	<99	<58	<260	<2500	<250
Benzene	ppbV	<80	<200	<170	34 J	<58	<260	<2500	<250
Carbon tetrachloride	ppbV	<80	<200	<170	<99	<58	<260	<2500	<250
Chlorobenzene	ppbV	<80	<200	<170	<99	<58	<260	<2500	<250
Chloroform	ppbV	76 J	110 J	60 J	170	160	160	530 J	110 J
Chloromethane	ppbV	<200	<510	<420	<250	<140	<650	<6200	<630
cis-1,2-Dichloroethene	ppbV	2700	3300	2100	2500	4000	3500	10000	1600
Dichlorodifluoromethane	ppbV	<80	<200	<170	<99	<58	140	<2500 J	<250
Ethylbenzene	ppbV	<80	<200	<170	<99	<58	1200	<2500	<250
Methylene chloride	ppbV	250	110 J,B	310 J,B	180 J,B	31 J,B	670	990 J,B	160 J
m-Xylene & p-Xylene	ppbV	<80	<200	<170	<99	<58	4300	<2500	<250
o-Xylene	ppbV	<80	<200	<170	<99	<58	1200	<2500	<250
Tetrachloroethene	ppbV	190	340	170	180	59	330	18000	1500
Toluene	ppbV	<80	<200	<170	31 J	<58	79	<2500	<250
Trichloroethene	ppbV	7300	16000	13000	13000	13000	38000	740000 B	37000
Trichlorofluoromethane	ppbV	<80	<200	<170	<99	<58	<260	<2500	60 J
Vinyl chloride	ppbV	<80	<200	<170	<99	<58	<260	<2500	820 B

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SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-D 9/19/2007	SVE-D 10/18/2007	SVE-D 1/17/2008	SVE-D 5/6/2008	SVE-D 7/16/2008	SVE-D 10/17/2008	SVE-D 2/4/2009 with trap	SVE-E 7/25/2007
1,1,2,2-Tetrachloroethane	ppbV	81	3700	4500	4300	14000	29000	11	<3800
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<2.9	<60	<40	<19	<240	<250	<2	<3800
1,1,2-Trichloroethane	ppbV	<2.9	<60	<40	5.3 J	<240	76	<2	<3800
1,1-Dichloroethene	ppbV	<2.9	<60	<40	<19	<240	<250	<2	<3800
1,2,4-Trimethylbenzene	ppbV	<2.9	<60	<40	<19	<240	4500	<2	<3800
1,2-Dichloroethane	ppbV	<2.9	<60	<40	<19	<240	<250	<2	4600
1,3,5-Trimethylbenzene	ppbV	<2.9	<60	<40	<19	<240	1700	<2	<3800
1,4-Dichlorobenzene	ppbV	<2.9	<60	<40	<19	<240	<250	<2	<3800
Benzene	ppbV	<2.9	<60	<40	<19	<240	110	<2	<3800
Carbon tetrachloride	ppbV	0.54 J	<60	<40	<19	<240	<250	<2	<3800
Chlorobenzene	ppbV	<2.9	<60	<40	<19	<240	<250	<2	<3800
Chloroform	ppbV	6.3	35 J	38 J	7 J	<240	70	0.54	<3800
Chloromethane	ppbV	<7.1	<150	<100	<47	<610	<640	<2	<9500
cis-1,2-Dichloroethene	ppbV	26	210	140	110	880	320	0.78	5500 J
Dichlorodifluoromethane	ppbV	<2.9	<60	<40	<19	<240	<250	<2	<3800
Ethylbenzene	ppbV	<2.9	<60	<40	<19	<240	1800	<2	<3800
Methylene chloride	ppbV	<7.1	34 J,B	17 J,B	18 J,B	210 J,B	900	4.1	1200 J,B
m-Xylene & p-Xylene	ppbV	<2.9	<60	<40	<19	<240	6900	<2	<3800
o-Xylene	ppbV	<2.9	<60	<40	<19	<240	1800	<2	<3800
Tetrachloroethene	ppbV	9.7	450	300	190	670	680	2.8	5700
Toluene	ppbV	<2.9	<60	<40	5.2 J	<240	100	<2	<3800
Trichloroethene	ppbV	370	4600	3100	2600	28000	37000	9.8	320000
Trichlorofluoromethane	ppbV	<2.9	<60	<40	<19	<240	<250	<2	<3800
Vinyl chloride	ppbV	<2.9	21 J	<40	<19	<240	<250	<2	<3800

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SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-E 8/23/2007	SVE-E 9/19/2007	SVE-E 10/18/2007	SVE-E 1/17/2008	SVE-E 4/3/2008	SVE-E 4/18/2008	SVE-E 4/24/2008	SVE-E 7/16/2008
Units									
1,1,2,2-Tetrachloroethane	ppbV	35	740	3.1	14	0.82	0.47	2.7	7.2
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<7.1	<30	0.18 J	0.95	0.19 J	0.19 J	0.12 J	<2
1,1,2-Trichloroethane	ppbV	<7.1	<30	<0.2	<0.8	<0.2	<0.2	0.21	<2
1,1-Dichloroethane	ppbV	<7.1	<30	<0.2	0.7 J	0.058 J	0.055 J	0.096 J	0.42 J
1,2,4-Trimethylbenzene	ppbV	<7.1	<30	<0.2	<0.8	0.079 J	0.14 J	0.15 J	<2
1,2-Dichloroethane	ppbV	<7.1	<30	<0.2	<0.8	<0.2	<0.2	<0.2	<2
1,3,5-Trimethylbenzene	ppbV	<7.1 J	<30	<0.2	<0.8	<0.2	<0.2	<0.2	<2
1,4-Dichlorobenzene	ppbV	<7.1	<30	<0.2	<0.8	<0.2	<0.2	0.25	<2
Benzene	ppbV	<7.1	<30	0.18 J	0.91	0.46	0.42	0.81	<2
Carbon tetrachloride	ppbV	5.5 J	33	0.33	2.5	0.19 J	0.2	1.3	<2
Chlorobenzene	ppbV	<7.1	<30	<0.2	<0.8	<0.2	<0.2	<0.2	<2
Chloroform	ppbV	6.8 J	30	1.4	17	0.55	0.65	5.1	1.6 J
Chloromethane	ppbV	<18	<74	0.83	<2	0.9	1.1	0.94	<5
cis-1,2-Dichloroethene	ppbV	28	340	1.1	18	1.6	1.8	11	5.2
Dichlorodifluoromethane	ppbV	<7.1	<30	0.48	0.78 J	0.57	0.68	0.71	<2
Ethylbenzene	ppbV	<7.1	<30	0.49	<0.8	0.25	0.091 J	0.15 J	<2
Methylene chloride	ppbV	<18	<74	0.34 J,B	0.62 J,B	0.26 J	0.47 J,B	0.35 J,B	1.4 J,B
m-Xylene & p-Xylene	ppbV	<7.1	<30	1.7	<0.8	0.71	0.32	0.57	<2
o-Xylene	ppbV	<7.1	<30	0.53	<0.8	0.24	0.13 J	0.22	<2
Tetrachloroethene	ppbV	4.8 J	63	0.73	3.5	0.12 J	0.089 J	2	0.49 J
Toluene	ppbV	<7.1	<30	0.42	0.73 J	3	0.69	1	0.66 J
Trichloroethene	ppbV	540	5200	5.5	68	3.4	4.8	120	24
Trichlorofluoromethane	ppbV	<7.1	<30	0.23	0.35 J	0.31	0.36	0.35	<2
Vinyl chloride	ppbV	25 B	<30	0.095 J	2.1	0.29	0.25	0.075 J	<2

<: Not detected above Reporting Limit (RL)
J: Estimated result based on QC data or reported below RL
B: Estimated result possibly biased high or false positive based on blank data

TABLE 16
FLUVIAL SVE WELLS, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-E 10/17/2008	SVE-E 1/19/2009	SVE-F 7/25/2007	SVE-F 8/23/2007	SVE-F 9/19/2007	SVE-F 10/18/2007	SVE-F 1/17/2008	SVE-F 4/3/2008
Units									
1,1,2,2-Tetrachloroethane	ppbV	20	<2	150	12	0.95	2.8	9.9	2.4
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<2	<2	<7.9	0.081 J	0.11 J	0.19 J	<8	0.22
1,1,2-Trichloroethane	ppbV	<2	<2	<7.9	0.12 J	<0.2	<0.2	<8	<0.2
1,1-Dichloroethene	ppbV	<2	<2	<7.9	<0.2	0.13 J	<0.2	<8	0.064 J
1,2,4-Trimethylbenzene	ppbV	<2	<2	<7.9	0.071 J	<0.2	0.068 J	<8	0.5
1,2-Dichloroethane	ppbV	<2	<2	11	<0.2	<0.2	<0.2	<8	<0.2
1,3,5-Trimethylbenzene	ppbV	<2	<2	<7.9	<0.2 J	<0.2	<0.2	<8	0.25
1,4-Dichlorobenzene	ppbV	<2	<2	<7.9	<0.2	<0.2	<0.2	<8	0.09 J
Benzene	ppbV	0.67	<2	<7.9	0.11 J	0.16 J	0.18 J	<8	0.57
Carbon tetrachloride	ppbV	<2	<2	3.2 J	0.88	0.91	0.32	2.4 J	0.24
Chlorobenzene	ppbV	<2	<2	<7.9	<0.2	<0.2	<0.2	<8	<0.2
Chloroform	ppbV	6.7	<2	32	4.2	4.6	1.5	21	1.1
Chloromethane	ppbV	3.8	<5	<20	0.81	0.89	0.96	<20	0.85
cis-1,2-Dichloroethene	ppbV	7.8	<3	130	3.8	5.8	1	22	2.1
Dichlorodifluoromethane	ppbV	<2	<2	<7.9	0.57	0.53	0.47	<8	0.6
Ethylbenzene	ppbV	<2	<2	<7.9	0.083 J	<0.2	0.5	<8	0.85
Methylene chloride	ppbV	18	13	2.1 J,B	0.15 J	0.26 J	0.37 J,B	4.7 J,B	0.38 J
m-Xylene & p-Xylene	ppbV	<2	<2	<7.9	0.29	<0.2	1.8	<8	3.4
o-Xylene	ppbV	<2	<2	<7.9	0.095 J	<0.2	0.54	<8	1.1
Tetrachloroethene	ppbV	0.88	<2	10	0.62	0.2	0.86	860	0.18 J
Toluene	ppbV	0.67	<2	<7.9	0.25	0.23	0.43	<8	5.4
Trichloroethene	ppbV	55	<2	670	15	19	5.3	68	4.8
Trichlorofluoromethane	ppbV	<2	<2	<7.9	0.28	0.25	0.22	<8	0.33
Vinyl chloride	ppbV	<2	<2	<7.9	2 B	0.18 J	0.1 J	<8	0.35

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TABLE 16
FLUVIAL SVE WELLS, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-F 4/18/2008	SVE-F 4/24/2008	SVE-F 7/16/2008	SVE-F 10/17/2008	SVE-F 1/19/2009	SVE-G 7/25/2007	SVE-G 8/23/2007
1,1,2,2-Tetrachloroethane	ppbV	0.53	<0.2	9.4	38	<2	2600 J	13000
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	0.2	0.13 J	<2	<2	<2	<2800	<320
1,1,2-Trichloroethane	ppbV	<0.2	<0.2	<2	<2	<2	<2800	470
1,1-Dichloroethene	ppbV	0.049 J	0.056 J	0.37 J	<2	<2	<2800	<320
1,2,4-Trimethylbenzene	ppbV	0.15 J	<0.2	<2	<2	<2	<2800	<320
1,2-Dichloroethane	ppbV	<0.2	<0.2	<2	<2	<2	<2800	<320
1,3,5-Trimethylbenzene	ppbV	<0.2	<0.2	<2	<2	<2	<2800	<320 J
1,4-Dichlorobenzene	ppbV	<0.2	<0.2	<2	<2	<2	<2800	<320
Benzene	ppbV	0.41	0.23	0.67 J	1.1	<2	<2800	<320
Carbon tetrachloride	ppbV	0.19 J	0.13 J	<2	<2	<2	37000	10000
Chlorobenzene	ppbV	<0.2	<0.2	<2	<2	<2	<2800	<320
Chloroform	ppbV	0.71	0.47	1.6 J	8.7	<2	610000	94000
Chloromethane	ppbV	0.91	1.1	<5	<5	<5	<6900	<810
cis-1,2-Dichloroethene	ppbV	2.1	0.64	5.7	11	<3	5500	1400
Dichlorodifluoromethane	ppbV	0.69	0.67	<2	0.7	<2	<2800	<320
Ethylbenzene	ppbV	0.12 J	<0.2	<2	<2	<2	<2800	<320
Methylene chloride	ppbV	0.31 J,B	0.65	1.9 J,B	8.2	2.4	1000 J,B	280 J
m-Xylene & p-Xylene	ppbV	0.33	<0.2	<2	<2	<2	<2800	<320
o-Xylene	ppbV	0.14 J	<0.2	<2	<2	<2	<2800	<320
Tetrachloroethene	ppbV	0.12 J	<0.2	0.46 J	1.1	<2	13000	2800
Toluene	ppbV	0.71	0.072 J	0.86 J	1.1	<2	<2800	<320
Trichloroethene	ppbV	5.2	1.1	24	70	<2	260000	27000
Trichlorofluoromethane	ppbV	0.35	0.29	0.28 J	0.27	<2	<2800	76 J
Vinyl chloride	ppbV	0.24	<0.2	<2	<2	<2	<2800	770 B

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TABLE 16
FLUVIAL SVE WELLS, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	SVE Location Date	SVE-G 9/19/2007	SVE-G 10/18/2007	SVE-G 1/17/2008	SVE-G 4/24/2008	SVE-G 7/16/2008	SVE-G 10/17/2008	SVE-G 1/19/2009
1,1,2,2-Tetrachloroethane	ppbV	4000	1100	450	9.5	420	25	18
1,1,2-Trichloro-1,2,2-trifluoroethane	ppbV	<80	<21	<330	0.11 J	<5.1	<2	<1.9
1,1,2-Trichloroethane	ppbV	79 J	16 J	<330	0.06 J	8.9	<2	5
1,1-Dichloroethane	ppbV	<80	<21	<330	<0.2	6.4	0.77	<1.9
1,2,4-Trimethylbenzene	ppbV	<80	<21	<330	0.14 J	<5.1	<2	<1.9
1,2-Dichloroethane	ppbV	24 J	<21	<330	<0.2	3.7 J	<2	0.72
1,3,5-Trimethylbenzene	ppbV	<80	<21	<330	<0.2	<5.1	<2	<1.9
1,4-Dichlorobenzene	ppbV	<80	<21	<330	<0.2	<5.1	<2	<1.9
Benzene	ppbV	<80	<21	<330	0.7	4.1 J	0.69	<1.9
Carbon tetrachloride	ppbV	4400	1400	1500	0.17 J	72	<2	<1.9
Chlorobenzene	ppbV	<80	<21	<330	<0.2	<5.1	<2	<1.9
Chloroform	ppbV	22000	6200	32000	6.3	2000	98	100
Chloromethane	ppbV	<200	<53	350 J	0.96	<13	<5	<4.8
cis-1,2-Dichloroethene	ppbV	260	73	210 J	0.72	47	8.6	6.4
Dichlorodifluoromethane	ppbV	<80	<21	<330	0.62	2.8 J	<2	<1.9
Ethylbenzene	ppbV	<80	<21	<330	0.16 J	<5.1	<2	<1.9
Methylene chloride	ppbV	110 J	31 J,B	270 J,B	0.71	31 B	6	3.8
m-Xylene & p-Xylene	ppbV	<80	<21	<330	0.58	<5.1	<2	<1.9
o-Xylene	ppbV	<80	<21	<330	0.23	<5.1	<2	<1.9
Tetrachloroethene	ppbV	1300	390	1100	0.29	27	0.91	<1.9
Toluene	ppbV	<80	<21	<330	1	<5.1	0.79	<1.9
Trichloroethene	ppbV	5900	1500	5500	3.5	600	63	5.9
Trichlorofluoromethane	ppbV	<80	<21	<330	0.27	<5.1	<2	<1.9
Vinyl chloride	ppbV	<80	<21	<330	<0.2	3.8 J	<2	<1.9

<: Not detected above Reporting Limit (RL)

J: Estimated result based on QC data or reported below RL

B: Estimated result possibly biased high or false positive based on blank data

TABLE 17
FLUVIAL VMPs, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	VMP-01A 7/25/2007	VMP-01B 7/25/2007	VMP-01A 7/16/2008	VMP-01B 7/16/2008	VMP-02A 7/25/2007	VMP-02B 7/25/2007	VMP-02A 7/16/2008	VMP-02B 7/16/2008	VMP-02A 4/3/2008	VMP-02B 4/3/2008
	Units										
1,1,1-Trichloroethane	ppb/V	<410	<390	<2	<2	<110	<1200	15	<5300	<2	<570
1,1,2,2-Tetrachloroethane	ppb/V	<410	<390	<2	6.9	54 J	<1200	<7.8	1900 J	1.8 J	280 J
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<410	<390	1 J	<2	<110	<1200	1100	<5300	110	<570
1,1,2-Trichloroethane	ppb/V	<410	<390	<2	2.2	<110	<1200	<7.8	1600 J	<2	<570
1,1-Dichloroethene	ppb/V	240 J	180 J	1.9 J	1.1 J	43 J	1800	95	18000	1.8 J	3700
1,2-Dichloroethane	ppb/V	<410	<390	<2	0.77 J	<110	<1200	<7.8	<5300	<2	<570
Benzene	ppb/V	<410	<390	<2	3.2	<110	<1200	<7.8	4400 J	<2	<570
Carbon tetrachloride	ppb/V	450	220 J	<2	<2	<110	<1200	<7.8	<5300	<2	<570
Chloroform	ppb/V	1100	180 J	15	7.1	<110	830 J	<7.8	1500 J	1.2 J	220 J
cis-1,2-Dichloroethene	ppb/V	21000	7000	1.2 J	60	4800	240000	33	910000	96	94000
Dichlorodifluoromethane	ppb/V	<410	<390	<2	<2	<110	<1200	<7.8	<5300	0.95 J	<570
Ethylbenzene	ppb/V	<410	<390	<2	1.1 J	<110	<1200	<7.8	<5300	<2	<570
Methylene chloride	ppb/V	190 J,B	190 J,B	2 J,B	2.9 J,B	59 J,B	580 J,B	8.1 J,B	3600 J,B	1.1 J,B	290 J,B
Tetrachloroethene	ppb/V	860	550	3	58	48 J	1600	1.7 J	2000 J	1.3 J	<570
Toluene	ppb/V	<410	<390	<2	1.9 J	88 J	<1200	<7.8	<5300	<2	<570
Trichloroethene	ppb/V	67000	40000	4.3	44	13000	460000 B	40	330000	170 B	9500 B
Trichlorofluoromethane	ppb/V	<410	<390	0.27 J	0.28 J	<110	<1200	20	<5300	9.9	<570
Vinyl chloride	ppb/V	<410	<390	<2	<2	98 J	4500	9.6	400000	<2	21000

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TABLE 17
FLUVIAL VMPs, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	VMP-02A 4/17/2008	VMP-02B 4/17/2008	VMP-03A 7/24/2007	VMP-03B 7/24/2007	VMP-03A 7/16/2008	VMP-03B 7/16/2008	VMP-04A 7/24/2007	VMP-04B 7/24/2007	VMP-04A 7/16/2008	VMP-04B 7/16/2008
Units											
1,1,1-Trichloroethane	ppb/V	<1.3	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	<12
1,1,2,2-Tetrachloroethane	ppb/V	1.4	1900	<580	<11000	15	<3400	190 J	<1200	7.8	<12
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	93	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	<12
1,1,2-Trichloroethane	ppb/V	0.49 J	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	4.2 J
1,1-Dichloroethene	ppb/V	1.7	4100	<580	<11000	<7.3	3000 J	<400	<1200	<2	7.3 J
1,2-Dichloroethane	ppb/V	<1.3	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	<12
Benzene	ppb/V	<1.3	<1200	<580	<11000	<7.3	1100 J	<400	<1200	<2	21
Carbon tetrachloride	ppb/V	0.28 J	<1200	<580	<11000	1.6 J	<3400	<400	<1200	<2	<12
Chloroform	ppb/V	1.5	380 J	220 J	3300 J	5.8 J	7000	230 J	850 J	58	38
cis-1,2-Dichloroethene	ppb/V	100	140000	25000	570000	96	1600000	23000	100000	140	2000
Dichlorodifluoromethane	ppb/V	0.91 J	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	<12
Ethylbenzene	ppb/V	<1.3	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	<12
Methylene chloride	ppb/V	0.73 J,B	810 J,B	340 J,B	4200 J,B	6.2 J,B	2500 J,B	190 J,B	470 J,B	2.5 J,B	12 J,B
Tetrachloroethene	ppb/V	1.4	<1200	760	27000	9.1	50000	750	3000	2.6	81
Toluene	ppb/V	<1.3	<1200	<580	<11000	<7.3	<3400	<400	<1200	<2	13
Trichloroethene	ppb/V	180	39000	81000	2700000	1200	5800000	64000	330000	85	710
Trichlorofluoromethane	ppb/V	9	<1200	<580	<11000	<7.3	<3400	<400	<1200	0.27 J	<12
Vinyl chloride	ppb/V	<1.3	18000	<580	<11000	3.1 J	<3400	<400	<1200	<2	<12

< Not detected above Reporting Limit (RL)

J: Estimated result based on QC data or reported below RL

B: Estimated result possibly biased high or false positive based on blank data

TABLE 17
FLUVIAL VMPs, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	VMP-05A 7/17/2008	VMP-05B 7/17/2008	VMP-05A 7/24/2007	VMP-05B 7/24/2007	VMP-06A 7/24/2007	VMP-06B 7/24/2007	VMP-06A 4/3/2008	VMP-06B 4/3/2008	VMP-06A 4/17/2008	VMP-06B 4/17/2008
	Units										
1,1,1-Trichloroethane	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	<0.67	<1200
1,1,2,2-Tetrachloroethane	ppb/V	97	970 J	110000	<420	4000	310000	460	300000	120	160000
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	<0.67	<1200
1,1,2-Trichloroethane	ppb/V	<2	<2200	<6200	<420	<3000	<3000	1.3 J	490 J	0.8	<1200
1,1-Dichloroethene	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	0.24 J	<1200
1,2-Dichloroethane	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	<0.67	<1200
Benzene	ppb/V	0.68 J	2000 J	<6200	<420	<3000	<3000	<3.7	<810	0.25 J	<1200
Carbon tetrachloride	ppb/V	<2	<2200	<6200	<420	<3000	<3000	19	<810	39	<1200
Chloroform	ppb/V	0.85 J	670 J	<6200	<420	<3000	<3000	65	<810	99	<1200
cis-1,2-Dichloroethene	ppb/V	5.4	11000	40000	1000	11000	16000	14	3900	20	2000
Dichlorodifluoromethane	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	0.6 J	<1200
Ethylbenzene	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	<0.67	<1200
Methylene chloride	ppb/V	2.7 J,B	1900 J,B	2000 J,B	160 J,B	990 J,B	1100 J,B	10	410 J,B	0.45 J,B	860 J,B
Tetrachloroethene	ppb/V	1.9 J	16000	39000	1300	12000	21000	2 J	6400	3.4	2700
Toluene	ppb/V	1.1 J	3900	<6200	<420	<3000	<3000	<3.7	<810	<0.67	<1200
Trichloroethene	ppb/V	200	540000	2500000 B	66000	880000	1300000 B	170	260000 B	170	150000
Trichlorofluoromethane	ppb/V	0.36 J	<2200	<6200	<420	<3000	<3000	0.52 J	<810	0.4 J	<1200
Vinyl chloride	ppb/V	<2	<2200	<6200	<420	<3000	<3000	<3.7	<810	<0.67	<1200

<: Not detected above Reporting Limit (RL)

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TABLE 17
FLUVIAL VMPs, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	VMP-06A 7/17/2008	VMP-06B 7/17/2008	VMP-07A 7/24/2007	VMP-07B 7/24/2007	VMP-07A 4/3/2008	VMP-07B 4/3/2008	VMP-07A 4/17/2008	VMP-07B 4/17/2008	VMP-07A 7/17/2008	VMP-07B 7/17/2008
	Units										
1,1,1-Trichloroethane	ppb/V	<4.4	<2300	<40	<31	<2	<4.8	<0.44	<1.9	<2	<9.7
1,1,2,2-Tetrachloroethane	ppb/V	680	4800000	78	14 J	5	120	12	62	9.5	32
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<4.4	<2300	<40	<31	<2	<4.8	0.11 J	<1.9	<2	<9.7
1,1,2-Trichloroethane	ppb/V	2.6 J	4000	49	14 J	0.64 J	1.3 J	0.9	1.5 J	0.82 J	8.5 J
1,1-Dichloroethene	ppb/V	<4.4	<2300	<40	14 J	0.46 J	5.3	0.33 J	6.4	<2	7.3 J
1,2-Dichloroethane	ppb/V	<4.4	<2300	<40	<31	<2	<4.8	0.38 J	<1.9	<2	<9.7
Benzene	ppb/V	<4.4	<2300	15 J	19 J	<2	2 J	1.3	4.7	1.8 J	20
Carbon tetrachloride	ppb/V	<4.4	<2300	410	<31	210	86	170	360	1.5 J	410
Chloroform	ppb/V	1.6 J	<2300	290	410	96	48	180	86	38	350
cis-1,2-Dichloroethene	ppb/V	14	23000	5900	4700	33	130	11	540	18	770
Dichlorodifluoromethane	ppb/V	<4.4	<2300	<40	<31	0.92 J	<4.8	0.83	0.66 J	<2	<9.7
Ethylbenzene	ppb/V	<4.4	<2300	<40	<31	<2	<4.8	<0.44	<1.9	<2	<9.7
Methylene chloride	ppb/V	2.3 J,B	1400 J,B	29 J,B	19 J,B	5.2 B	2.8 J,B	0.85 J,B	2.1 J,B	1.4 J,B	7.8 J,B
Tetrachloroethene	ppb/V	0.99 J	31000	37 J	82	38	20	60	45	0.6 J	56
Toluene	ppb/V	<4.4	<2300	16 J	<31	<2	<4.8	0.2 J	<1.9	<2	3 J
Trichloroethene	ppb/V	540	3500000	6300 B	6300 B	100 B	520 B	64	1000	16	1900
Trichlorofluoromethane	ppb/V	<4.4	<2300	<40	<31	0.4 J	<4.8	0.35 J	0.56 J	0.25 J	<9.7
Vinyl chloride	ppb/V	<4.4	<2300	100	64	<2	66	0.17 J	98	<2	23

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TABLE 17
FLUVIAL VMPs, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	VMP-08A Units	VMP-08B 7/23/2007	VMP-08A 4/3/2008	VMP-08B 4/3/2008	VMP-08A 4/17/2008	VMP-08B 4/17/2008	VMP-08A 7/17/2008	VMP-08B 7/17/2008
1,1,1-Trichloroethane	ppb/V	<31	<320	<0.5	<31	0.053 J	<42	<2	<50
1,1,2,2-Tetrachloroethane	ppb/V	57	3000	16	750	25	730	3.2	2300
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<31	<320	<0.5	<31	0.1 J	<42	<2	<50
1,1,2-Trichloroethane	ppb/V	21 J	400	0.36 J	40	0.59	53	<2	150
1,1-Dichloroethene	ppb/V	<31	<320	0.17 J	13 J	0.13 J	16 J	1.6 J	22 J
1,2-Dichloroethane	ppb/V	<31	240 J	<0.5	<31	0.15 J	<42	<2	<50
Benzene	ppb/V	15 J	<320	0.29 J	<31	0.31	<42	<2	17 J
Carbon tetrachloride	ppb/V	<31	930	120	26 J	170	27 J	1.6 J	24 J
Chloroform	ppb/V	160	1400	3.3	89	6.5	120	0.94 J	350
cis-1,2-Dichloroethene	ppb/V	910	7400	1.4	670	2.1	820	1.6 J	2500
Dichlorodifluoromethane	ppb/V	<31	<320	0.22 J	<31	1	<42	1.6 J	<50
Ethylbenzene	ppb/V	<31	<320	<0.5	<31	<0.2	<42	<2	<50
Methylene chloride	ppb/V	26 J,B	240 J,B	0.62 J	15 J,B	0.26 J,B	25 J,B	1.9 J,B	22 J,B
Tetrachloroethene	ppb/V	32	810	16	56	32	81	3.3	180
Toluene	ppb/V	<31	<320	0.63	<31	0.21	<42	<2	<50
Trichloroethene	ppb/V	4800 B	40000	10	3400 B	16	5000	5.2	11000
Trichlorofluoromethane	ppb/V	5.6 J,B	<320	0.31 J	<31	0.51	<42	0.51 J	<50
Vinyl chloride	ppb/V	36	330	<0.5	31	<0.2	44	<2	92

< Not detected above Reporting Limit (RL)

J: Estimated result based on QC data or reported below RL

B: Estimated result possibly biased high or false positive based on blank data

TABLE 17
FLUVIAL VMPs, VAPOR ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date	VMP-09A 7/23/2007	VMP-09B 7/23/2007	VMP-09A 7/17/2008	VMP-09B 7/17/2008	VMP-10A 7/17/2008	VMP-10B 7/17/2008	VMP-10A 7/23/2007	VMP-10B 7/23/2007
	Units								
1,1,1-Trichloroethane	ppb/V	<2.9	<1200	1.4 J	0.86 J	<2	<63	<7.2	<220
1,1,2,2-Tetrachloroethane	ppb/V	<2.9	950 J	5.9 J	6.4	0.92 J	5400	4.9 J	83 J
1,1,2-Trichloro-1,2,2-trifluoroethane	ppb/V	<2.9	<1200	<7.9	<3.6	1.4 J	<63	<7.2	<220
1,1,2-Trichloroethane	ppb/V	<2.9	<1200	<7.9	<3.6	<2	700	<7.2	<220
1,1-Dichloroethane	ppb/V	1.9 J	<1200	99	60	2.9	<63	<7.2	<220
1,2-Dichloroethane	ppb/V	<2.9	<1200	<7.9	<3.6	<2	<63	28 J	<220
Benzene	ppb/V	<2.9	<1200	2.6 J	110	<2	<63	<7.2	<220
Carbon tetrachloride	ppb/V	360	60000	750	450	67	18 J	420	15000
Chloroform	ppb/V	2700	190000	1100	480	5.9	260	920	56000
cis-1,2-Dichloroethene	ppb/V	46	2800	25	9.3	<3	<94	10 J	420
Dichlorodifluoromethane	ppb/V	<2.9	<1200 J	46	37	<2	<63	<7.2	<220 J
Ethylbenzene	ppb/V	<2.9	<1200	<7.9	20	<2	<63	<7.2	<220
Methylene chloride	ppb/V	1.4 J,B	2100 J,B	4 J,B	3.5 J,B	1.8 J,B	67 J,B	3.7 J,B	210 J,B
Tetrachloroethene	ppb/V	4.7	16000	190	110	4.7	23 J	53	3000
Toluene	ppb/V	<2.9	<1200	<7.9	28	<2	<63	<7.2	<220
Trichloroethene	ppb/V	590 B	97000 B	2400	1000	2.7	530	710	27000 B
Trichlorofluoromethane	ppb/V	<2.9	<1200	3.2 J	2.3 J	0.33 J	<63	<7.2	<220
Vinyl chloride	ppb/V	1.1 J	<1200	<7.9	<3.6	<2	<63	<7.2	<220

< Not detected above Reporting Limit (RL)

J Estimated result based on QC data or reported below RL

B. Estimated result possibly biased high or false positive based on blank data

TABLE 18
AVERAGE VOC CONCENTRATIONS FOR MASS EMISSION ESTIMATES
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Date	System Influent			System Effluent		
	PID Reading (ppm)	Laboratory Total VOC Influent Concentration (ppbv)	VOC Concentration Used for Mass Emission Calculations ⁽¹⁾ (ppbv)	PID Reading (ppm)	Laboratory Total VOC Effluent Concentration (ppbv)	VOC Concentration Used for Mass Emission Calculations ⁽¹⁾ (ppbv)
7/25/2007	NR	1,261,000	1,261,000	NR	5.82	5.82
7/26/2007	>10,000	NS	903,250 ⁽²⁾	5.7	NS	2.91 ⁽²⁾
7/27/2007	1091	NS	545,500	0	NS	0
7/28/2007	538	NS	269,000	0.2	NS	100
7/29/2007	486	NS	243,000	0.1	NS	50
7/30/2007	279	NS	139,500	2.7	NS	1,350
8/3/2007	NR ⁽³⁾	119,700	119,700	NR ⁽³⁾	207,000	207,000
8/13/2007	NR	NS	109,745 ⁽⁴⁾	NR	NS	0 ⁽⁵⁾
8/16/2007	116	99,790	99,790	0	30.59	30.59
8/23/2007	74.3	31,560	31,560	0.1	42.31	42.31
9/19/2007	21.3	14,800	14,800	27.4	19,090	19,090
10/18/2007	17.5	15,930	15,930	N/C	N/C	15,930 ⁽⁶⁾
1/17/2008	18.8	NS	19,830	N/C	N/C	19,830 ⁽⁶⁾
3/20/2008	10.4	NS	19,076 ⁽⁷⁾	N/C	N/C	19,076 ⁽⁶⁾
4/17/2008	34.5	NS	34,500 ⁽⁸⁾	N/C	N/C	34,500 ⁽⁶⁾
4/24/2008	13.5	15,204	15,204	N/C	N/C	15,204 ⁽⁶⁾
7/16/2008	17.6	11,557	11,557	N/C	N/C	11,557 ⁽⁶⁾
10/17/2008	44.3	27,470	27,470	N/C	N/C	27,470 ⁽⁶⁾
1/19/2009	3.7	2,168	2,168	N/C	N/C	2,168 ⁽⁶⁾
1/31/2009	3.3	NS	2,168 ⁽⁹⁾	N/C	N/C	2,168 ⁽⁶⁾

Notes:

- (1) Laboratory sample total VOC concentration used for calculation. If not sample was collected or results are not available, then concentration is half of the PID reading unless otherwise noted. PID readings more accurately reflect declining concentrations trends.
- (2) Concentration is average of concentrations from 07/25/07 and 07/27/07.
- (3) To minimize system operation time, the SVE system was online for laboratory sampling only.
- (4) Concentration is average of concentrations from 08/03/07 and 08/16/07.
- (5) Concentration estimated to be 0 ppb following carbon change out.
- (6) Treatment system offline. VOC influent concentration used for mass emission calculation.
- (7) Start of Rebound Event #1. No sample collected. Concentration is 96.2% of concentration from 1/17/08 and is based on mass rates from four online SVE wells prior to shutdown.
- (8) End of Rebound Event #1. No sample collected. Concentration from PID readings.
- (9) No laboratory sample collected. Used laboratory VOC concentration from 1/19/09.
- N/A Not applicable.
- N/C Not sample collected. Treatment system offline.
- NR PID reading not collected.
- NS. Sample not collected.
- PID Photoionization Detector.

TABLE 19
FLUVIAL SVE MASS EMISSIONS ESTIMATES
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

SVE System Data				Influent			Effluent		Treatment System		
	End Date	Hours Operating Between Dates	Average Flow rate (scfm)	Average Influent VOC Concentration (ppbv)	Influent Emission Rate ⁽¹⁾ (lb/hr)	Estimated VOC Mass Removal During Period (lbs)	Cumulative Mass Removed From Fluvial Subsurface (lbs)	Average Effluent VOC Concentration (ppbv)	Effluent Emission Rate ⁽²⁾ (lb/hr)	VOC Mass Captured by Treatment System (lbs)	Cumulative VOC Mass Captured by Treatment System (lbs)
Start Date	7/25/2007	4	755	1,082,125	16,995	68.0	68.0	4.4	0.000	68.0	68.0
	7/26/2007	4	755	724,375	11,377	45.5	113.5	1.5	0.000	45.5	113.5
	7/27/2007	24	785	407,250	6,650	159.6	273.1	50	0.001	159.6	273.1
7/28/2007	7/28/2007	24	746	256,000	3,973	95.3	368.4	75	0.001	95.3	368.4
7/29/2007	7/29/2007	24	741	191,250	2,948	70.8	439.2	700	0.009	70.5	438.9
7/30/2007	8/2/2007	66	739	129,600	1,992	131.5	570.7	104,175	1,294	46.1	485.0
8/3/2007	8/12/2007	20	740	114,723	1,766	35.3	606.0	207,000	2,351	(11.7)	473.3 ⁽³⁾
8/13/2007	8/15/2007	39	602	104,768	1,312	51.2	657.2	15.3	0.000	51.2	51.2
8/16/2007	8/22/2007	167	596	65,675	0,814	136.0	793.1	36.5	0.000	135.9	187.1
8/23/2007	9/19/2007	640	758	23,180	0,366	233.9	1,027.1	9,566	0.111	162.7	349.8
9/19/2007	10/18/2007	699	795	15,365	0,254	177.6	1,204.7	17,510	0.290	59.5	409.3 ⁽⁴⁾
10/18/2007	1/17/2008	2,077	748	17,880	0,278	577.6	1,782.3	N/C	0.278	N/A	N/A
1/17/2008	3/20/2008	1413	738	17,517	0,269	380.0	2,162.3	N/C	0.269	N/A	N/A
3/20/2008	4/17/2008	626	385 ⁽⁵⁾	19,076	0,153	95.6	2,257.9	N/C	0.153	N/A	N/A
4/17/2008	4/24/2008	145	784	24,852	0,405	58.8	2,316.7	N/C	0.405	N/A	N/A
4/24/2008	7/16/2008	1981	741	13,381	0,206	408.8	2,725.5	N/C	0.206	N/A	N/A
7/16/2008	10/17/2008	2118	752	19,514	0,305	646.2	3,371.7	N/C	0.305	N/A	N/A
10/17/2008	1/19/2009	2162	737	14,819	0,227	491.3	3,863.0	N/C	0.227	N/A	N/A
1/19/2009	1/30/2009	242	653	2,168	0,029	7.1	3,870.1	N/C	0.029	N/A	N/A

Notes:

- (1) Calculation based on TCE which is the primary constituent
 (2) Calculation based on xylene (primary constituent from sample collected 07/25), cis-1,2-DCE (primary constituent from sample collected on 8/03/07), vinyl chloride (primary constituent from samples collected on 8/16 and 8/23), or TCE (primary constituent from sample collected on 9/19/07 and 10/18/07)
 (3) GAC replaced on 13 August 2007
 (4) GAC replaced on 26 December 2007
 (5) Rebound Event #1 occurred between 03/20/08 and 04/17/08 SVE-B, SVE-E, and SVE-F were offline
 N/A Not applicable. Treatment system taken offline on 10/05/07.
 N/C No sample collected Treatment system offline Influent emissions rates used for effluent emission rates

TABLE 20
TA-1F INITIAL EXCAVATION, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Method	Units	RG	Date	PRG	TA-1-FLOOR-1	TA-1-FLOOR-2	TA-1-NORTH-1	TA-1-SOUTH-1	TA-1-SOUTH-2	TA-1-EAST-1	TA-1-Floor 3
Volatile Organic Compounds												
Chloroform	8260B	mg/kg	0.917	0.6	0.138	0.000892 F	0.00207	0.186 F	0.00456	<0	00209	

Notes.

F: Estimate -result >MDL and <RL

< Result is less than laboratory detection limit

TABLE 21
TA-1F INITIAL EXCAVATION, WASTE MATERIAL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field – Defense Depot Memphis, Tennessee

Analyte	Method	Units	RG	PRG	TA-1-WEST-1
Volatile Organic Compounds					
Bromodichloromethane	8260B	mg/kg	NL	0.6	0.00448
Carbon tetrachloride	8260B	mg/kg	0.215	0.07	0.317
Chloroform	8260B	mg/kg	0.917	0.6	52
Tetrachloroethene	8260B	mg/kg	0.1806	0.06	0.0142
Semi-Volatile Organic Compounds					
Not Detected	8270C				
Polychlorinated Biphenyls					
Not Detected	8082				
Pesticides					
Not Detected	8081A				
Herbicides					
Not Detected	8151A				
Metals					
Aluminum, Total	6010B	mg/kg	100,000	100,000	69.9
Barium, Total	6010B	mg/kg	1,600	1,600	2.06
Calcium, Total	6010B	mg/kg	NL	NL	236
Chromium, Total	6010B	mg/kg	4,483	38	25
Copper, Total	6010B	mg/kg	669	41,000	1.96
Iron, Total	6010B	mg/kg	NL	100,000	379
Magnesium, Total	6010B	mg/kg	NL	NL	28.4
Manganese, Total	6010B	mg/kg	1,540	19,000	3.06
Nickel, Total	6010B	mg/kg	20,439	130	5.96
Sodium, Total	6010B	mg/kg	NL	NL	78.4
Zinc, Total	6010B	mg/kg	100,000	12,000	2.73
Antimony, Total	6020	mg/kg	7	5	1.71
Arsenic, Total	6020	mg/kg	29	29	2.29
Lead, Total	6020	mg/kg	1,536	800	2.66
Selenium, Total	6020	mg/kg	5	5	0.575
Thallium, Total	6020	mg/kg	67.5	67	0.0348

Notes:

B: Method Blank Contamination

F: Estimate -result >MDL and <RL

J: Estimated Result

<: Result is less than laboratory detection limit.

NL: Not Listed

TABLE 22
TA-3 INITIAL EXCAVATION, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Location Date	RG	PRG	TA-3-01 1/14/2008	TA-3-06 1/14/2008	TA-3-10 1/14/2008	TA-3-12 1/14/2008	TA-3-13 1/14/2008	TA-3-16 1/14/2008	TA-3-17 1/14/2008	TA-3-27 1/14/2008
Units										
Volatile Organic Compounds (8260B)										
1,2,4-Trimethylbenzene	mg/kg	1.26	170	0.000714 F	<0.00637	107 J	0.0198	<0.0122	0.000797 F	<0.00832
1,3,5-Trimethylbenzene	mg/kg	1.24	70	<0.00494	<0.00516	58.8 J	0.00858	<0.0102	<0.00545	<0.00694
Acetone	mg/kg	16	16	<0.0198	<0.0206	8.35 J	0.0254 F	0.0285 F	<0.0218	<0.0277
Benzene	mg/kg	NL	0.03	<0.00198	<0.00212	0.484 J	<0.00272	<0.00406	<0.00218	<0.00277
cis-1,2-Dichloroethene	mg/kg	0.755	0.4	<0.00494	0.0191	0.00237 F	0.0023 F	<0.0102	<0.00545	<0.00694
Ethylbenzene	mg/kg	13	13	<0.00494	<0.00516	4.43 J	<0.0068	<0.0102	<0.00545	<0.00694
Isopropylbenzene	mg/kg	NL	2000	<0.00494	<0.00516	5.79 J	0.00103 F	<0.0102	<0.00545	<0.00694
m-p-Xylene	mg/kg	210	210	0.000714 F	<0.00516	24.7 J	0.00302 F	0.00135 F	0.000836 F	<0.00694
Naphthalene	mg/kg	188	84	0.00064 F	0.000849 F	16.2 J	0.00488 F	0.00146 F	0.000811 F	0.00103 F
n-Butylbenzene	mg/kg	NL	240	<0.00494	<0.00516	18.2 J	0.00284 F	<0.0102	<0.00545	<0.00694
n-Propylbenzene	mg/kg	NL	240	<0.00494	<0.00516	12.7 J	0.00203 F	<0.0102	<0.00545	<0.00694
o-Xylene	mg/kg	210	210	<0.00494	<0.00516	14 J	0.00201 F	<0.0102	<0.00545	<0.00694
p-Isopropyltoluene	mg/kg	NL	220	<0.00593	<0.00619	14.9 J	0.00437 F	<0.0122	0.00108 F	<0.00832
sec-Butylbenzene	mg/kg	NL	390	<0.00494	<0.00516	9.18 J	0.00171 F	<0.0102	<0.00545	<0.00694
tert-Butylbenzene	mg/kg	NL	220	<0.00494	<0.00516	1.77 J	<0.0068	<0.0102	<0.00545	<0.00694
Tetrachloroethene	mg/kg	0.1806	0.06	<0.00494	0.000517 F	<0.00853	<0.0068	<0.0102	<0.00545	<0.00694
Toluene	mg/kg	12	12	<0.00494	<0.00516	2.55 J	<0.0068	<0.0102	<0.00545	<0.00694
Total Xylenes	mg/kg	210	210	0.000714 F	<0.00516	24.9 J	0.00503 F	0.00135 F	0.000836 F	<0.00694
trans-1,2-Dichloroethene	mg/kg	1.52	0.7	<0.00494	<0.00516	<0.00853	<0.0068	<0.0102	<0.00545	<0.00694
Trichloroethene	mg/kg	0.182	0.06	<0.00494	0.0126	0.00853	<0.0068	0.00506 F	<0.00545	<0.00694
Vinyl chloride	mg/kg	0.0294	0.01	<0.00494	<0.00516	<0.00853	<0.0068	<0.0102	<0.00545	<0.00694
Semi-Volatile Organic Compounds (8270C)										
2-Methylnaphthalene	mg/kg	NL	NL	<7.71	<8.17	27.6 F	<4.31	<4.25	<0.399	<9.33
Acenaphthene	mg/kg	29.219	570	5.12	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Anthracene	mg/kg	100.000	1,200	8.69	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Benzo(a)anthracene	mg/kg	21.1	2	26	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Benzo(a)pyrene	mg/kg	2.11	8	23.3	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Benzo(b)fluoranthene	mg/kg	21.1	5	28.2	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Benzo(g,h,i)Perylene	mg/kg	NL	NL	9.15	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Benzo(k)fluoranthene	mg/kg	21.1	49	25	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Chrysene	mg/kg	2,110	160	27.8	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Dibenzofuran	mg/kg	NL	1,500	2.37 F	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Fluoranthene	mg/kg	22,000	4,300	62.1	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Fluorene	mg/kg	26.281	560	3.97	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14	10.2	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Naphthalene	mg/kg	188	84	<7.71	<8.17	110	<4.31	<4.25	<0.399	<9.33
Phenanthrene	mg/kg	NL	NL	45.7	<8.17	<51.8	<4.31	<4.25	<0.399	<9.33
Pyrene	mg/kg	29.126	4,200	50.1	<17.3	<110	<9.14	<9.01	<0.845	<19.8

Notes:
B Analyte Found in Method Blank
F Estimated result >MDL and < RL
J Estimated Result
M Concentration estimated due to matrix effect
Q QC criteria failed qualification required
< Result is less than reporting limit

TABLE 22
TA-3 INITIAL EXCAVATION, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Location Date Units	RG	PRG	TA-3-01 1/14/2008	TA-3-06 1/14/2008	TA-3-10 1/14/2008	TA-3-12 1/14/2008	TA-3-13 1/14/2008	TA-3-16 1/14/2008	TA-3-17 1/14/2008	TA-3-27 1/14/2008
Polychlorinated Biphenyls (8082)										
No Detections										
Pesticides (8081A)										
4,4'-DDE	70.2	54	<0.385	<0.207	<0.02	<4.44	<0.215	<0.21	<0.0197	0.523 F
Herbicides (8151A)										
No Detections										
Metals (6010B)										
Aluminum, Total	100,000	100,000	33100	13700	12700	8650	14100	13400	14700	18900
Barium, Total	1,600	1,600	100	390	84.4	440	192	249	108	183
Beryllium, Total	19,000	63	0.663	0.399 F	0.585	0.448 F	0.479	0.47	0.572	0.39 F
Cadmium, Total	451	8	0.113 F	4.19	0.133 F	1.21	0.259 F	0.924	0.124 F	1.05
Calcium, Total	NL	NL	10900	40100	1740	3400	2590	8940	1890	60400
Chromium, Total	4,483	38	40.6	52.3	13.9	22.6	15.8	20.9	15.9	20.2
Cobalt, Total	661	1,900	3.67	5.39	5.37	28.3	6.83	6.72	7.97	5.29
Copper, Total	669	41,000	20.6	500	17.4	53.9	18.6	66.7	18.6	56.3
Iron, Total	NL	100,000	18100	49600	18000	108000	17500	22100	21200	23600
Magnesium, Total	NL	NL	3150	2610	1930	280	1720	1730	2220	2340
Manganese, Total	1,540	19,000	407	294	483	97	301	245	642	447
Nickel, Total	20,439	130	8.9	19.8	14.3	15.4	14.4	15.5	16.2	14.8
Potassium, Total	NL	NL	923	1120	1040	331	1130	1190	1320	1080
Sodium, Total	NL	NL	104	79.8	54.4	81.8	116	65.7	65	65
Vanadium, Total	7,154	6,000	40	26.1	26.2	26.2	26	27.3	30.1	28.2
Zinc, Total	100,000	12,000	86.5	459	50.2	25500	200	295	62.1	457
Metals (6020)										
Antimony, Total	7	5	0.0879 F	0.285	<0.119	<0.135	<0.13	0.111 F	<0.123	<0.128
Arsenic, Total	29	29	8.51	7.1	9.37	7.47	5.36	15.7	8.47	10.6
Lead, Total	1536	800	85.8	724 B	16 B	567 B	63 B	265 B	156 B	38.3 B
Selenium, Total	5	5	<0.238	0.248 F	0.292	0.609	0.201 F	0.313	0.242 F	0.275
Thallium, Total	67.5	67	0.231	0.194	0.253	0.115	0.151	0.205	0.255	0.204

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes:
B: Analyte Found in Method Blank
F: Estimated result >MDL and < RL
J: Estimated Result
M: Concentration estimated due to matrix effect
Q: QC criteria failed, qualification required
<: Result is less than reporting limit

TABLE 22
TA-3 INITIAL EXCAVATION, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Location Date	RG	PRG	TA-3-27 DUP 1/14/2008	TA-3-35 1/14/2008	TA-3-38 1/14/2008	TA-3-42 1/14/2008	TA-3-42 DUP 1/14/2008	TA-3-49 1/14/2008	TA-3-50 1/14/2008	TA-3-53 1/14/2008
Units										
Volatile Organic Compounds (8260B)										
1,2,4-Trimethylbenzene	mg/kg	1 26	<0.00822	0.0123	0.00263 F	0.0364	0.202 F	0.00569 F	<0.00526	<0.00463
1,3,5-Trimethylbenzene	mg/kg	1 24	<0.00685	0.00602 F	0.00648	0.0168	0.142 J	0.0139	<0.00438	<0.00385
Acetone	mg/kg	16	<0.0274	0.0355	<0.0198	0.0472	0.0357 J	0.00841 F	<0.0175	<0.0154
Benzene	mg/kg	NL	<0.00274	<0.00246	0.000885 F	<0.00305	<0.00301	<0.00243	<0.00175	<0.00154
cis-1,2-Dichloroethene	mg/kg	0.755	<0.00685	0.00479 F	0.00402 F	0.00259 F	0.0123 J	<0.00608	<0.00438	<0.00385
Ethylbenzene	mg/kg	13	<0.00685	<0.00615	<0.00495	0.00208 F	0.0139 J	0.00065 F	<0.00438	<0.00385
Isopropylbenzene	mg/kg	NL	<0.00685	0.00105 F	<0.00495	0.00253 F	0.0188 J	<0.00608	<0.00438	<0.00385
m-p-Xylene	mg/kg	210	<0.00685	0.00221 F	0.00115 F	0.00937	0.0684 J	0.00134 F	<0.00438	<0.00385
Naphthalene	mg/kg	188	<0.00685	0.00314 F	0.0015 F	0.0443	0.289 J	0.00349 F	0.0294 M	0.0177
n-Butylbenzene	mg/kg	NL	<0.00685	0.00181 F	0.00188 F	0.00434 F	0.0343 J	0.00369 F	<0.00438	<0.00385
n-Propylbenzene	mg/kg	240	<0.00685	0.00127 F	0.000632 F	0.00389 F	0.0429 J	0.00119 F	<0.00438	<0.00385
o-Xylene	mg/kg	210	<0.00685	0.00103 F	0.000899 F	0.00431 F	0.0284 J	0.00142 F	<0.00438	<0.00385
p-Isopropyltoluene	mg/kg	NL	<0.00822	0.00346 F	0.002 F	0.00433 F	0.0407 J	0.00425 F	<0.00526	<0.00463
sec-Butylbenzene	mg/kg	NL	<0.00685	0.00131 F	0.000594 F	0.00248 F	0.0251 J	0.00128 F	<0.00438	<0.00385
tert-Butylbenzene	mg/kg	NL	<0.00685	<0.00615	<0.00495	<0.00763	0.00686 F	0.000716 F	<0.00438	<0.00385
Tetrachloroethene	mg/kg	0.1806	<0.00685	<0.00615	0.00571	<0.00763	<0.00754	<0.00608	<0.00438	<0.00385
Toluene	mg/kg	12	<0.00685	<0.00615	<0.00495	<0.00763	0.0019 F	<0.00608	<0.00438	<0.00385
Total Xylenes	mg/kg	210	<0.00685	0.00324 F	0.00205 F	0.0137	0.0968 J	0.00276 F	<0.00438	<0.00385
trans-1,2-Dichloroethene	mg/kg	1.52	<0.00685	0.00209 F	<0.00495	<0.00763	0.00995 J	<0.00608	<0.00438	<0.00385
Trichloroethene	mg/kg	0.182	<0.00685	<0.00615	0.0189	<0.00763	0.00325 F	<0.00608	<0.00438	<0.00385
Vinyl chloride	mg/kg	0.0294	<0.00685	<0.00615	<0.00495	<0.00763	0.00255 F	<0.00608	<0.00438	<0.00385
Semi-Volatile Organic Compounds (8270C)										
2-Methylnaphthalene	mg/kg	NL	<8.35	<8.28	<7.83	<8.49	<9.88	<7.85	4.62 M	6.88 Q
Acenaphthene	mg/kg	29,219	<8.35	<8.28	<7.83	<8.49	<9.88	14	31.6 M	62.3 Q
Anthracene	mg/kg	100,000	<8.35	<8.28	3.37	3.17	3.62 F	22.4	48 M	98 Q
Benzo(a)anthracene	mg/kg	21.1	<8.35	3.95 F	7.48	6.55	7.73 F	52.5	114 M	160
Benzo(a)pyrene	mg/kg	21.1	<8.35	3.58 F	6.63	5.78	7.02 F	47.9	108 M	240 Q
Benzo(b)fluoranthene	mg/kg	21.1	<8.35	3.9 F	7.12	5.75	7.99 F	53.3	163	196
Benzo(g,h,i)Perylene	mg/kg	NL	<8.35	<8.28	3.6	2.61	<9.88	25	43.7 M	113 Q
Benzo(k)fluoranthene	mg/kg	211	<8.35	3.7 F	6.5	5.68	8.06 F	44	105 M	233 Q
Chrysene	mg/kg	2,110	<8.35	4.37 F	8.1	7.03	8.67 F	56	124 M	172
Dibenzofuran	mg/kg	NL	<8.35	<8.28	<7.83	<8.49	<9.88	6.58 F	17.7 M	30.8 Q
Fluoranthene	mg/kg	22,000	<8.35	11	22	19.4	22.4	118	379	425
Fluorene	mg/kg	26,281	<8.35	<8.28	<7.83	<8.49	<9.88	11.3	29.3 M	49.1 Q
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	<8.35	<8.28	3.72	2.82	2.55 F	26.9	47.5 M	125 Q
Naphthalene	mg/kg	188	<8.35	<8.28	<7.83	<8.49	<9.88	2.98 F	8.14 M	12.2 Q
Phenanthrene	mg/kg	NL	<8.35	7.45 F	16.9	16.2	18.6	97.4	317	320
Pyrene	mg/kg	29,126	<17.7	8.28 F	16	14.4	17.5 F	96.1	315	351

Notes:
B Analyte Found in Method Blank
F Estimated result >MDL and < RL
J Estimated Result
M Concentration estimated due to matrix effect
Q QC criteria failed, qualification required
< Result is less than reporting limit

TABLE 22
TA-3 INITIAL EXCAVATION, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Location Date	RG	PRG	TA-3-27 DUP 1/14/2008	TA-3-35 1/14/2008	TA-3-38 1/14/2008	TA-3-42 1/14/2008	TA-3-42 DUP 1/14/2008	TA-3-49 1/14/2008	TA-3-50 1/14/2008	TA-3-53 1/14/2008
Units										
Polychlorinated Biphenyls (8082)										
No Detections										
Pesticides (8081A)										
4,4'-DDE	70.2	54	1.31	<0.213	<0.404	<0.416	<0.21	<0.404	<0.364	<0.346
Herbicides (8151A)										
No Detections										
Metals (6010B)										
Aluminum, Total	100,000	100,000	5410	11100	9510	8810	28100	12700	15900	4610
Barium, Total	1,600	1,600	3000	241	235	137	126	678	115	28.9
Beryllium, Total	19,000	63	0.171 F	0.391 F	0.339 F	0.394 F	0.273 F	0.424 F	0.442	0.395
Cadmium, Total	451	8	3.1	0.547	1.91	0.159 F	0.0616 F	1.2	0.0853 F	0.207 F
Calcium, Total	NL	NL	156000	9270	23400	2010	2030	29400	2810	9720
Chromium, Total	4,483	38	19.7	18.3	25.6	11.8	35.6	32.8	14.7	14.9
Cobalt, Total	661	1,900	2.64	8.63	4.49	5.53	3.85	4.96	7.2	3.87
Copper, Total	669	41,000	73.1	45.3	173	11.3	10.5	38.7	13.7	5
Iron, Total	NL	100,000	13800	22400	62800	15600	13100	17500	19500	14500
Magnesium, Total	NL	NL	2190	1440	1620	1320	842	2850	2040	4210
Manganese, Total	1,540	19,000	158	219	360	264	212	312	296	195
Nickel, Total	20,439	130	9.03	20.4	19.6	10.9	7.46	13.5	14.8	6.82
Potassium, Total	NL	NL	701	947	895	869	527	993	1270	317
Sodium, Total	NL	NL	61.1	73.7	121	71.9	55.3	111	48.9	39.9
Vanadium, Total	7,154	6,000	12.5	23.2	19.7	19.4	31.7	24	28.3	13.2
Zinc, Total	100,000	12,000	1320	137	383	54	57.3	355	56.4	37.6
Metals (6020)										
Antimony, Total	7	5	<0.12	<0.121	0.113 F	<0.129	<0.13	0.0633 F	<0.112	0.145
Arsenic, Total	29	29	50.7	7.43	7.99	5.54	6.17	7.97	7.85	9.8
Lead, Total	1536	800	114	28.8	271 B	13.8	26.6	107.8	15.5 B	45.7
Selenium, Total	5	5	0.39	0.303	0.252	0.231 F	0.276	0.217 F	0.397	0.244
Thallium, Total	67.5	67	0.285	0.205	0.202	0.171	0.272	0.235	0.244	0.117

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes

- B. Analyte Found in Method Blank
- F. Estimated result >MDL and < RL
- J. Estimated Result
- M. Concentration estimated due to matrix effect
- Q. QC criteria failed qualification required
- <. Result is less than reporting limit

TABLE 23
TA-1F FINAL EXCAVATION, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Primary CVOCs (mg/Kg)	Sample Date	FLOOR-N-TAIF 2/16/2009	FLOOR-S-TAIF 2/16/2009	WALL-E-TAIF-1 2/16/2009	WALL-E-TAIF-2 2/16/2009	WALL-N-TAIF 2/16/2009	WALL-S-TAIF 2/16/2009	WALL-W-TAIF 2/16/2009
Chloroform	Loess RG 0.917	0.000905 F	0.0172	<0.0021	0.00517	<0.00205	<0.00222	<0.00274

Notes:

- < Not detected above Reporting Limit (RL)
F: Concentration estimated below RL and above the MDL

TABLE 24
TA-3 GRID SAMPLE LOCATIONS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Boring	Depth of Fill (feet, bgs)	Sample Depth (feet, bgs)			Analysis
TA3-1A	0	5	10	15	SVOCs
TA3-1B	0	5	10	15	SVOCs
TA3-1C	9.5	10	15	-	SVOCs
TA3-1D	0	5	10	-	SVOCs
TA3-1E	0	5	10	15	SVOCs
TA3-12A	4	5	10	15	VOCs, SVOCs
TA3-12B	6.5	7	12	-	VOCs
TA3-12C	4.5	5	10	15	VOCs
TA3-12D	14.5	15	20	-	VOCs
TA3-12E	9.5	10	15	-	VOCs
TA3-A1	1	5	10	15	SVOCs
TA3-A2	0	5	10	15	SVOCs
TA3-A3	0	5	10	15	SVOCs
TA3-A4	0	5	10	15	SVOCs
TA3-A5	0	5	10	15	SVOCs
TA3-B1	1	5	10	15	SVOCs
TA3-B2	3.5	5	10	15	SVOCs
TA3-B3	0	5	10	15	SVOCs
TA3-B4	0	5	10	15	SVOCs
TA3-B5	0	5	10	15	SVOCs
TA3-C1	0	5	10	15	SVOCs
TA3-C2	4.5	5	10	15	SVOCs
TA3-C3	5.5	6.5	11	-	SVOCs
TA3-C4	0	5	10	15	SVOCs
TA3-C5	0	5	10	15	SVOCs
TA3-D1	4	5	10	15	SVOCs
TA3-D2	4.5	5	10	15	SVOCs
TA3-D3	5.6	6	11	-	SVOCs
TA3-D4	0	5	10	15	SVOCs
TA3-D5	0	5	10	15	SVOCs
TA3-E1	1.4	5	10	15	SVOCs
TA3-E2	0	5	10	15	SVOCs
TA3-E3	0	5	10	15	SVOCs
TA3-E4	0.5	5	10	15	SVOCs
TA3-E5	0	5	10	15	SVOCs
TA3-F1	0	5	10	15	SVOCs
TA3-F2	0	5	10	15	SVOCs
TA3-F3	0	5	10	15	SVOCs
TA3-F4	0	5	10	15	SVOCs
TA3-F5	0	5	10	15	SVOCs

TABLE 25
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - VOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Volatile Organic Compounds (8260B) mg/Kg	Sample Location		Date		units		Loess RG		PRG		Date	
	mg/kg	0.755	0.4	0.00649	0.0072	0.00693 J	0.00476	0.00568	0.00524	0.00528	mg/kg	0.0294
cis-1,2-Dichloroethene	mg/kg	0.0294	-	<0.00505	<0.00435	0.00498 F	<0.00476	<0.00568	<0.00524	<0.00528	mg/kg	16
Vinyl chloride	mg/kg	16	16	0.0497	0.0337	<0.0222	0.022	<0.0227	<0.021	0.0576	mg/kg	16
Acetone	mg/kg	16	16	0.0497	0.0337	<0.0222	0.022	<0.0227	<0.021	0.0576	mg/kg	16

Notes:
F: Estimated result >MDL and < RL
J: Estimated Result
Q: QC criteria failed, qualification required
<: Result is less than reporting limit

TABLE 25
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - VOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Volatile Organic Compounds (8260B) mg/Kg	Sample Location		TA3-12C-15		TA3-12C-5		TA3-12D-15		TA3-12D-20		TA3-12E-10		TA3-12E-15	
	units	Loess RG	PRG	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
cis-1,2-Dichloroethene	mg/kg	0.755	0.4		0.000754 F	0.000687 F	<0.00483	0.00487	<0.00481	<0.00564	<0.00564	0.00858		
Vinyl chloride	mg/kg	0.0294	-		<0.005	<0.00511	<0.00483	<0.00481	<0.00564	<0.00564	<0.00564	0.0218		
Acetone	mg/kg	16	16		<0.02	0.00732 F	<0.0193	<0.0192	0.0216 F	0.0216 F	0.0216 F	<0.019		

Notes:

- F Estimated result >MDL and < RL
- J: Estimated Result
- Q QC criteria failed, qualification required
- <: Result is less than reporting limit

TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location		Date		TA3-1A-5		TA3-1A-10		TA3-1A-15		TA3-12A-5		TA3-12A-10		TA3-12A-15		TA3-1B-5		TA3-1B-10		TA3-1B-15	
	units	Loess	RG	PRG																		
Acenaphthene	mg/kg	29219	570		<0.38	<0.457	<0.444	1.66 F	<0.421	<0.381	<0.404	<0.398	<0.411									
Anthracene	mg/kg	100000	1,200		<0.38	<0.457	<0.444	2.87	<0.421	<0.381	<0.404	<0.398	<0.411									
Benzo(a)anthracene	mg/kg	21.1	2		<0.38	<0.457	<0.444	6.52	<0.421	<0.381	<0.404	<0.398	<0.411									
Benzo(a)pyrene	mg/kg	2.11	8		<0.38	<0.457	<0.444	5.45	<0.421	<0.381	<0.404	<0.398	<0.411									
Benzo(b)fluoranthene	mg/kg	21.1	5		<0.38	<0.457	<0.444	5.88	<0.421	<0.381	<0.404	<0.398	<0.411									
Benzo(g,h,i)Perylene	mg/kg	NL	NL		<0.38	<0.457	<0.444	3.7	<0.421	<0.381	<0.404	<0.398	<0.411									
Benzo(k)fluoranthene	mg/kg	211	49		<0.38	<0.457	<0.444	4.73	<0.421	<0.381	<0.404	<0.398	<0.411									
Chrysene	mg/kg	2110	160		<0.38	<0.457	<0.444	6.88	<0.421	<0.381	<0.404	<0.398	<0.411									
Dibenzofuran	mg/kg	NL	1600		<0.38	<0.457	<0.444	0.778 F	<0.421	<0.381	<0.404	<0.398	<0.411									
Fluoranthene	mg/kg	22000	4300		<0.38	<0.457	<0.444	19.5	<0.421	<0.381	<0.404	<0.398	<0.411									
Fluorene	mg/kg	26281	560		<0.38	<0.457	<0.444	1.42 F	<0.421	<0.381	<0.404	<0.398	<0.411									
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14		<0.38	<0.457	<0.444	3.68	<0.421	<0.381	<0.404	<0.398	<0.411									
Naphthalene	mg/kg	188	84		<0.38	<0.457	<0.444	<1.97	<0.421	<0.381	<0.404	<0.398	<0.411									
Phenanthrene	mg/kg	NL	NL		<0.38	<0.457	<0.444	15.3	<0.421	<0.381	<0.404	<0.398	<0.411									
Pyrene	mg/kg	29126	4200		<0.806	<0.969	<0.942	13.9	<0.892	<0.808	<0.857	<0.845	<0.871									

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes:
F: Estimated result >MDL and < RL
J: Estimated Result
Q: QC criteria failed, qualification required
<: Result is less than reporting limit
NL: Not Listed

TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location		Loess RG	PRG	Date									
	units	TA3-1C-10			TA3-1C-15	TA3-1D-5	TA3-1D-10	TA3-1E-5	TA3-1E-10	TA3-1E-15	TA3-A1-05	TA3-A1-10		
Acenaphthene	mg/kg	29219	570		<0.401	<0.448	3 09 F	<0.436	<0.437	<0.411	0 138 F	<0.405		
Anthracene	mg/kg	100000	1,200		0.104 F	<0.448	4 48 F	<0.436	<0.437	<0.411	0.185 F	<0.405		
Benzo(a)anthracene	mg/kg	21.1	2		0.491	<0.448	13.6	<0.436	<0.437	<0.411	0.497	<0.405		
Benzo(a)pyrene	mg/kg	2.11	8		0.432	<0.448	12.1	<0.436	<0.437	<0.411	0.416 F	<0.405		
Benzo(b)fluoranthene	mg/kg	21 1	5		0.527	<0.448	12 7	<0.436	<0.437	<0.411	0.474	<0.405		
Benzo(g,h,i)Perylene	mg/kg	NL	NL		0.346 F	<0.448	8.36	<0.436	<0.437	<0.411	0.255 F	<0.405		
Benzo(k)fluoranthene	mg/kg	211	49		0.424	<0.448	11 1	<0.436	<0.437	<0.411	0.482	<0.405		
Chrysene	mg/kg	2110	160		0.566	<0.448	15.1	<0.436	<0.437	<0.411	0.558	<0.405		
Dibenzofuran	mg/kg	NL	1600		<0.401	<0.448	1.56 F	<0.436	<0.437	<0.411	<0.436	<0.405		
Fluoranthene	mg/kg	22000	4300		1.41	<0.448	39.1	<0.436	<0.437	<0.411	1.67	<0.405		
Fluorene	mg/kg	26281	560		<0.401	<0.448	2.37 F	<0.436	<0.437	<0.411	<0.436	<0.405		
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14		<0.401	<0.448	8.32	<0.436	<0.437	<0.411	0.251 F	<0.405		
Naphthalene	mg/kg	188	84		<0.401	<0.448	<4.62	<0.436	<0.437	<0.411	<0.436	<0.405		
Phenanthrene	mg/kg	NL	NL		0.703	<0.448	28 5	<0.436	<0.437	<0.411	1.28	<0.405		
Pyrene	mg/kg	29126	4200		0.959	<0.95	28.4	<0.924	<0.927	<0.871	1 04	<0.858		

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes.
F: Estimated result >MDL and < RL
J: Estimated Result
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<: Result is less than reporting limit
NL: Not Listed

TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location		Date		Loess RG		PRG		Date		Date		Date		Date		Date		Date	
	units																			
Acenaphthene	mg/kg	29219	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Anthracene	mg/kg	100000	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Benzo(a)anthracene	mg/kg	21.1	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Benzo(a)pyrene	mg/kg	2.11	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Benzo(b)fluoranthene	mg/kg	21.1	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Benzo(g,h,i)Perylene	mg/kg	NL	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Benzo(k)fluoranthene	mg/kg	211	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Chrysene	mg/kg	2110	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Dibenzofuran	mg/kg	NL	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Fluoranthene	mg/kg	22000	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Fluorene	mg/kg	26281	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Naphthalene	mg/kg	188	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Phenanthrene	mg/kg	NL	<0.447	<0.42	<0.453	<0.445	<0.392	<0.455	<0.45	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372	<0.372
Pyrene	mg/kg	29126	<0.948	<0.891	<0.961	<0.943	<0.831	<0.964	<0.955	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes:
F: Estimated result >MDL and < RL
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TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	units	Loess RG	PRG	Sample Location	TA3-A4-15	TA3-A5-5	TA3-A5-10	TA3-A5-15	TA3-B1-5	TA3-B1-10	TA3-B1-15	TA3-B2-5	TA3-B2-10
Acenaphthene	mg/kg	29219	570		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	8.97	<0.477
Anthracene	mg/kg	100000	1,200		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	15	<0.477
Benzo(a)anthracene	mg/kg	21.1	2		<0.392	<0.455	<0.443	<0.45	0.136 F	<0.414	<0.418	45.4	<0.477
Benzo(a)pyrene	mg/kg	2.11	8		<0.392	<0.455	<0.443	<0.45	0.145 F	<0.414	<0.418	41.7	<0.477
Benzo(b)fluoranthene	mg/kg	21.1	5		<0.392	<0.455	<0.443	<0.45	0.156 F	<0.414	<0.418	41.2	<0.477
Benzo(g,h,i)Perylene	mg/kg	NL	NL		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	20.1	<0.477
Benzo(k)fluoranthene	mg/kg	211	49		<0.392	<0.455	<0.443	<0.45	0.125 F	<0.414	<0.418	43.1	<0.477
Chrysene	mg/kg	2110	160		<0.392	<0.455	<0.443	<0.45	0.165 F	<0.414	<0.418	48.6	<0.477
Dibenzofuran	mg/kg	NL	1600		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	4.78	<0.477
Fluoranthene	mg/kg	22000	4300		<0.392	<0.455	<0.443	<0.45	0.388 F	<0.414	<0.418	109	<0.477
Fluorene	mg/kg	26281	560		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	11.3	<0.477
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	21	<0.477
Naphthalene	mg/kg	188	84		<0.392	<0.455	<0.443	<0.45	<0.434	<0.414	<0.418	2.38 F	<0.477
Phenanthrene	mg/kg	NL	NL		<0.392	<0.455	<0.443	<0.45	0.279 F	<0.414	<0.418	77.8	0.142 F
Pyrene	mg/kg	29126	4200		<0.831	<0.965	<0.939	<0.954	0.297 F	<0.879	<0.887	82.9	<1.01

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

Notes:

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NL: Not Listed

07100001
1000171

TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location			units	Loess RG		PRG	Date									
	Date				Date			2/25/2009		2/25/2009		2/25/2009		2/25/2009		2/25/2009	
Acenaphthene	mg/kg	29219	570	<0.445	0.275 F	<0.444	<0.401	<4.11	0.223 F	<0.461	<0.436	<0.45	<0.45				
Anthracene	mg/kg	100000	1,200	<0.445	0.37 F	<0.444	<0.401	<4.11	0.378 F	<0.461	<0.436	<0.45	<0.45				
Benzo(a)anthracene	mg/kg	21.1	2	<0.445	1.41	0.204 F	<0.401	2.7 F	0.835	<0.461	<0.436	<0.45	<0.45				
Benzo(a)pyrene	mg/kg	2.11	8	<0.445	1.35	0.259 F	<0.401	2.45 F	0.794	<0.461	<0.436	<0.45	<0.45				
Benzo(b)fluoranthene	mg/kg	21.1	5	<0.445	1.41	0.228 F	<0.401	2.47 F	0.847	<0.461	<0.436	<0.45	<0.45				
Benzo(g,h,i)Perylene	mg/kg	NL	NL	<0.445	0.921	0.194 F	<0.401	1.81 F	0.36 F	<0.461	<0.436	<0.45	<0.45				
Benzo(k)fluoranthene	mg/kg	211	49	<0.445	1.32	0.253 F	<0.401	2.34 F	0.862	<0.461	<0.436	<0.45	<0.45				
Chrysene	mg/kg	2110	160	<0.445	1.6	0.229 F	<0.401	3.17 F	0.964	<0.461	<0.436	<0.45	<0.45				
Dibenzofuran	mg/kg	NL	1600	<0.445	0.124 F	<0.444	<0.401	<4.11	<0.44	<0.461	<0.436	<0.45	<0.45				
Fluoranthene	mg/kg	22000	4300	<0.445	3.93	0.452	<0.401	6.95	3.16	<0.461	<0.436	<0.45	<0.45				
Fluorene	mg/kg	26281	560	<0.445	0.217 F	<0.444	<0.401	<4.11	0.233 F	<0.461	<0.436	<0.45	<0.45				
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14	<0.445	0.909	0.181 F	<0.401	1.73 F	0.391 F	<0.461	<0.436	<0.45	<0.45				
Naphthalene	mg/kg	188	84	<0.445	<0.469	<0.444	<0.401	<4.11	<0.44	<0.461	<0.436	<0.45	<0.45				
Phenanthrene	mg/kg	NL	NL	<0.445	2.54	0.366 F	<0.401	5.5	2.35	0.133 F	<0.436	<0.45	<0.45				
Pyrene	mg/kg	29126	4200	<0.945	2.85	0.364 F	<0.851	5.43 F	2.44	<0.978	<0.925	<0.954	<0.954				

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes.
F: Estimated result >MDL and < RL
J: Estimated Result
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< Result is less than reporting limit
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TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location		Loess RG	PRG										
	units	Date			TA3-D2-5	TA3-D2-10	TA3-D2-15	TA3-D3-6	TA3-D3-11	TA3-D4-5	TA3-D4-10	TA3-D4-15	TA3-D5-5	
Acenaphthene	mg/kg	29219	570		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Anthracene	mg/kg	100000	1,200		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Benzo(a)anthracene	mg/kg	21.1	2		0.194 F	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Benzo(a)pyrene	mg/kg	2.11	8		0.199 F	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Benzo(b)fluoranthene	mg/kg	21.1	5		0.224 F	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Benzo(g,h,i)Perylene	mg/kg	NL	NL		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Benzo(k)fluoranthene	mg/kg	211	49		0.18 F	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Chrysene	mg/kg	2110	160		0.249 F	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Dibenzofuran	mg/kg	NL	1600		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Fluoranthene	mg/kg	22000	4300		0.128 F	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	0.18 F	
Fluorene	mg/kg	26281	560		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Naphthalene	mg/kg	188	84		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	<0.445	
Phenanthrene	mg/kg	NL	NL		<0.441	<0.408	<0.401	<0.42	<0.467	<0.435	<0.397	<0.459	0.114 F	
Pyrene	mg/kg	29126	4200		0.252 Q	<0.866	<0.851	<0.892	<0.991	<0.923	<0.843	<0.973	0.153 F	

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes:
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J: Estimated Result
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TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location				Date	TA3-D5-10		TA3-D5-15		TA3-E1-5		TA3-E1-10		TA3-E1-15		TA3-E2-5		TA3-E2-10		TA3-E2-15	
	units	Loess	RG	PRG		2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009
Acenaphthene	mg/kg	29219	570		<4.48	<0.446	<4.53	<0.423	<0.416	<2.3	<0.472	<0.382									
Anthracene	mg/kg	100000	1,200		<4.48	<0.446	1.29 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Benzo(a)anthracene	mg/kg	21.1	2		<4.48	<0.446	3.7 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Benzo(a)pyrene	mg/kg	21.1	8		<4.48	<0.446	3.17 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Benzo(b)fluoranthene	mg/kg	21.1	5		<4.48	<0.446	3.04 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Benzo(g,h,i)Perylene	mg/kg	NL	NL		<4.48	<0.446	2.22 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Benzo(k)fluoranthene	mg/kg	211	49		<4.48	<0.446	3.27 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Chrysene	mg/kg	2110	160		<4.48	<0.446	4.12 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Dibenzofuran	mg/kg	NL	1600		<4.48	<0.446	<4.53	<0.423	<0.416	<2.3	<0.472	<0.382									
Fluoranthene	mg/kg	22000	4300		<4.48	<0.446	10.3	<0.423	<0.416	<2.3	<0.472	<0.382									
Fluorene	mg/kg	26281	560		<4.48	<0.446	<4.53	<0.423	<0.416	<2.3	<0.472	<0.382									
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14		<4.48	<0.446	2.1 F	<0.423	<0.416	<2.3	<0.472	<0.382									
Naphthalene	mg/kg	188	84		<4.48	<0.446	<4.53	<0.423	<0.416	<2.3	<0.472	<0.382									
Phenanthrene	mg/kg	NL	NL		<4.48	<0.446	8.01	<0.423	<0.416	<2.3	<0.472	<0.382									
Pyrene	mg/kg	29126	4200		<9.5	<0.946	8.13 Q	<0.897	<0.882	<4.89	<1	<0.81									

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes:
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J Estimated Result
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TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	units	Sample Location		Loess RG	PRG	TA3-E3-5 TA3-E3-10 TA3-E3-15 TA3-E4-5 TA3-E4-10 TA3-E4-15 TA3-E5-5 TA3-E5-10									
		Date				2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009	2/25/2009
Acenaphthene	mg/kg	29219		570		<0.431	<0.423	<0.444	15.3	<0.454	<0.44	20.7	<9.95		
Anthracene	mg/kg	100000		1,200		<0.431	<0.423	<0.444	23.7	<0.454	<0.44	44.7	<9.95		
Benzo(a)anthracene	mg/kg	21.1		2		<0.431	<0.423	<0.444	57	0.116 F	0.123 F	87.7	<9.95		
Benzo(a)pyrene	mg/kg	21.1		8		<0.431	<0.423	<0.444	47.1	<0.454	<0.44	72.1	<9.95		
Benzo(b)fluoranthene	mg/kg	21.1		5		<0.431	<0.423	<0.444	50.2	<0.454	<0.44	69.5	<9.95		
Benzo(g,h,i)Perylene	mg/kg	NL		NL		<0.431	<0.423	<0.444	25	<0.454	<0.44	34.1	<9.95		
Benzo(k)fluoranthene	mg/kg	211		49		<0.431	<0.423	<0.444	48.6	<0.454	<0.44	78.6	<9.95		
Chrysene	mg/kg	2110		160		<0.431	<0.423	<0.444	60.5	0.134 F	0.144 F	89.5	<9.95		
Dibenzofuran	mg/kg	NL		1600		<0.431	<0.423	<0.444	7.82 F	<0.454	<0.44	22.3	<9.95		
Fluoranthene	mg/kg	22000		4300		<0.431	0.107 F	<0.444	143	0.42 F	0.377 F	286	<9.95		
Fluorene	mg/kg	26281		560		<0.431	<0.423	<0.444	12	<0.454	<0.44	29.7	<9.95		
Indeno(1,2,3-cd)pyrene	mg/kg	21.1		14		<0.431	<0.423	<0.444	25.1	<0.454	<0.44	35.3	<9.95		
Naphthalene	mg/kg	188		84		<0.431	<0.423	<0.444	3.48 F	<0.454	<0.44	14.1	<9.95		
Phenanthrene	mg/kg	NL		NL		<0.431	<0.423	<0.444	116	0.348 F	0.248 F	255	<9.95		
Pyrene	mg/kg	29126		4200		<0.915	<0.897	<0.942	106	0.283 F	0.257 F	146	<21.1		

Bold. Exceeds RG/PRG

Underline. 10X RG/PRG

Shaded. RL > RG/PRG

Notes:

F: Estimated result >MDL and < RL

J: Estimated Result

Q: QC criteria failed, qualification required

<: Result is less than reporting limit

NL: Not Listed

551000176

TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Sample Location		Date		TA3-E5-15		TA3-F1-5		TA3-F1-10		TA3-F1-15		TA3-F2-5		TA3-F2-10		TA3-F2-15		TA3-F3-5	
	units	Loess RG	PRG		2/25/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009
Acenaphthene	mg/kg	29219	570		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Anthracene	mg/kg	100000	1,200		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Benzo(a)anthracene	mg/kg	21.1	2		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Benzo(a)pyrene	mg/kg	2.11	8		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Benzo(b)fluoranthene	mg/kg	21.1	5		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Benzo(g,h,i)Perylene	mg/kg	NL	NL		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Benzo(k)fluoranthene	mg/kg	211	49		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Chrysene	mg/kg	2110	160		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Dibenzofuran	mg/kg	NL	1600		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Fluoranthene	mg/kg	22000	4300		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Fluorene	mg/kg	26281	560		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	14		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Naphthalene	mg/kg	188	84		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Phenanthrene	mg/kg	NL	NL		<0.486	<0.42	<0.468	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.405	<0.463	<0.397
Pyrene	mg/kg	29126	4200		<1.03	<0.891	<0.992	<0.86	<0.983	<0.86	<0.983	<0.86	<0.983	<0.86	<0.983	<0.86	<0.983	<0.86	<0.983	<0.843

Bold Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes:
F: Estimated result >MDL and < RL
J: Estimated Result
Q: QC criteria failed, qualification required
< Result is less than reporting limit
NL: Not Listed

TABLE 26
TA-3 GRID SAMPLES, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	units	Sample Location		Loess RG	PRG	TA3-F3-10 TA3-F3-15 TA3-F4-5 TA3-F4-10 TA3-F4-15 TA3-F5-5 TA3-F5-10 TA3-F5-15									
		Date				2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009	2/24/2009
Acenaphthene	mg/kg	29219		570		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Anthracene	mg/kg	100000		1,200		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Benzo(a)anthracene	mg/kg	21.1		2		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Benzo(a)pyrene	mg/kg	2.11		8		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Benzo(b)fluoranthene	mg/kg	21.1		5		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Benzo(g,h,i)Perylene	mg/kg	NL		NL		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Benzo(k)fluoranthene	mg/kg	211		49		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Chrysene	mg/kg	2110		160		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Dibenzofuran	mg/kg	NL		1600		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Fluoranthene	mg/kg	22000		4300		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Fluorene	mg/kg	26281		560		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Indeno(1,2,3-cd)pyrene	mg/kg	21.1		14		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Naphthalene	mg/kg	188		84		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Phenanthrene	mg/kg	NL		NL		<0.467	<0.418	<0.432	<0.422	<0.42	<2.16	<0.409	<0.39		
Pyrene	mg/kg	29126		4200		<0.99	<0.887	<0.916	<0.894	<0.892	<4.57	<0.867	<0.826		

Bold: Exceeds RG/PRG
Underline: 10X RG/PRG
Shaded: RL > RG/PRG

Notes
F: Estimated result >MDL and < RL
J: Estimated Result
Q: QC criteria failed, qualification required
< Result is less than reporting limit
NL: Not Listed

TABLE 27
TA-3 FINAL EXCAVATION SAMPLE LOCATIONS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Excavation		Sample #	Location	Description	Analyses
<u>Phase 1</u>					
TA3-1	5/14/2009	TA3-1-Floor-1	E Floor	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Floor-2	E Floor	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Floor-3	W Floor	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Wall-1	E Wall	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Wall-2	N Wall	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Wall-3	N Wall	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Wall-4	W Wall	Soil - no staining	SVOC
TA3-1	5/14/2009	TA3-1-Wall-5	S Wall	Soil - no staining	SVOC
TA3-2	5/14/2009	TA3-2-Floor-1	S Floor	Soil - no staining	SVOC
TA3-2	5/14/2009	TA3-2-Floor-2	C Floor	Soil - no staining	SVOC
TA3-2	5/14/2009	TA3-2-Floor-3	N Floor	Soil - no staining	SVOC
TA3-2	5/14/2009	TA3-2-Floor-4	C Floor	Soil - no staining	SVOC
TA3-2	5/14/2009	TA3-2-Wall-1	E Wall	Black stained soil/gravel	SVOC
TA3-2	5/14/2009	TA3-2-Wall-2	E Wall	Soil - below stained soil/gravel	SVOC
TA3-2	5/14/2009	TA3-2-Wall-3	S Wall	Black stained soil/gravel	SVOC
TA3-2	5/14/2009	TA3-2-Wall-4	N Wall	Black stained soil/gravel	SVOC
TA3-2	5/14/2009	TA3-2-Wall-5	N Wall	Soil - below stained soil/gravel	SVOC
TA3-2	5/14/2009	TA3-2-Wall-6	W Wall	Soil - below stained soil/gravel	SVOC
TA3-3	5/14/2009	TA3-3-Floor-1	E Floor	Base of E wall below drums	VOC, SVOC, Pest/PCBs, Herb, TAL Metals
TA3-3	5/14/2009	TA3-3-Floor-2	E Floor	Soil - no staining	SVOC
TA3-3	5/14/2009	TA3-3-Floor-3	E Floor	Soil - no staining	SVOC
TA3-3	5/14/2009	TA3-3-Floor-4	W Floor	Soil - no staining	SVOC
TA3-3	5/14/2009	TA3-3-Floor-5	W Floor	Soil - no staining	SVOC
TA3-3	5/14/2009	TA3-3-Wall-1	N Wall	Base of N wall below drums	VOC, SVOC, Pest/PCBs, Herb, TAL Metals
TA3-3	5/14/2009	TA3-3-Wall-2	N Wall	Soil - below stained soil/gravel	SVOC
TA3-3	5/14/2009	TA3-3-Wall-3	E Wall	Soil - below stained soil/gravel	SVOC
TA3-3	5/14/2009	TA3-3-Wall-4	S Wall	Black stained soil/gravel	SVOC
TA3-3	5/14/2009	TA3-3-Wall-5	S Wall	Soil - below stained soil/gravel	SVOC
TA3-3	5/14/2009	TA3-3-Wall-6	W Wall	Soil - no staining	SVOC
TA3-3	5/14/2009	TA3-3-Wall-7	N Wall	Black stained soil/gravel	SVOC
<u>Phase 2</u>					
TA3-2/3	6/5/2009	TA3-Wall-1	W Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-1	W Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-2	C Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-2	S Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-3	SE Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-4	E Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-3	E Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-5	C Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-4	E Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-6	C Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-5	E Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-6	N Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-7	C Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-8	N Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-7	N Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-8	N Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Floor-9	N Floor	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-9	W Wall	Soil - no staining	SVOC
TA3-2/3	6/5/2009	TA3-Wall-10	W Wall	Soil - no staining	SVOC
<u>Phase 3</u>					
TA3-2/3	6/12/2009	TA3-Floor-10	W Floor	Soil - no staining	SVOC
TA3-2/3	6/12/2009	TA3-Floor-11	C Floor	Soil - no staining	SVOC
TA3-2/3	6/12/2009	TA3-Floor-12	E Floor	Soil - no staining	SVOC
TA3-2/3	6/12/2009	TA3-Wall-11	W Wall	Soil - no staining	SVOC

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample Lab ID	TA3-1-FLOOR-1 L09050369-13	TA3-1-FLOOR-2 L09050369-14	TA3-1-FLOOR-3 L09050369-15	TA3-2-FLOOR-1 L09050369-29	TA3-2-FLOOR-2 L09050369-30
		3100	mg/kg	Date	5/14/2009	5/14/2009	5/14/2009	5/14/2009	5/14/2009
3,4-Methylphenol	NL		mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Acenaphthene	29219	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Anthracene	100000	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Benzo(a)anthracene	21.1	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Benzo(a)pyrene	2.11	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Benzo(b)fluoranthene	21.1	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Benzo(g,h,i)Perylene	NL	NL	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Benzo(k)fluoranthene	211	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Butylbenzylphthalate	100000	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Chrysene	2110	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Dibenzo(a,h)Anthracene	2.11	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Dibenzofuran	NL	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Fluoranthene	22000	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Fluorene	26281	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Naphthalene	188	--	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Phenanthrene	NL	NL	mg/kg		<0.449	<0.45	<0.443	<0.423	<0.392
Pyrene	29126	--	mg/kg		<0.953	<0.955	<0.94	<0.898	<0.831

Notes:

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

< Not detected above Reporting Limit (RL)

J: Concentration estimated

R Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY – SVOCS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample			
				TA3-2-FLOOR-3	TA3-2-FLOOR-4	TA3-3-FLOOR-1	TA3-3-FLOOR-2
3,4-Methylphenol	NL	3100	mg/kg	<0.338	<0.34	<9.42	<8.43
Acenaphthene	29219	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Anthracene	100000	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Benzo(a)anthracene	21.1	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Benzo(a)pyrene	2.11	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Benzo(b)fluoranthene	21.1	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Benzo(g,h,i)Perylene	NL	NL	mg/kg	<0.338	<0.34	<9.42	<8.43
Benzo(k)fluoranthene	211	--	mg/kg	<0.338	<0.34	<9.42	<8.43
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg	<0.338	<0.34	9.96	4.02 J
Butylbenzylphthalate	100000	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Chrysene	2110	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Dibenzo(a,h)Anthracene	2.11	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Dibenzofuran	NL	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Fluoranthene	22000	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Fluorene	26281	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Naphthalene	188	--	mg/kg	<0.338	<0.34	<9.42	<8.43
Phenanthrene	NL	NL	mg/kg	<0.338	<0.34	2.56 J	<8.43
Pyrene	29126	--	mg/kg	<0.718	<0.721	<20	<17.9

Notes.

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

<: Not detected above Reporting Limit (RL)

J: Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs		PRGs		Units		Sample	TA3-3-FLOOR-4	TA3-3-FLOOR-5	TA3-1-WALL-1	TA3-1-WALL-2	TA3-1-WALL-3
							Lab ID	L09050369-05	L09050369-06	L09050369-16	L09050369-17	L09050369-18
							Date	5/14/2009	5/14/2009	5/14/2009	5/14/2009	5/14/2009
3-, 4-Methylphenol	NL	3100			mg/kg							1 16 J
Acenaphthene	29219	--			mg/kg							2 12 J
Anthracene	100000	--			mg/kg							3 56 J
Benzo(a)anthracene	21.1	--			mg/kg							11.1
Benzo(a)pyrene	2.11	--			mg/kg							9.77
Benzo(b)fluoranthene	21.1	--			mg/kg							10 1
Benzo(g,h,i)Perylene	NL				mg/kg							6.48
Benzo(k)fluoranthene	211	--			mg/kg							10 4
bis(2-Ethylhexyl)phthalate	1231	--			mg/kg							<4.6
Butylbenzylphthalate	100000	--			mg/kg							<4.6
Chrysene	2110	--			mg/kg							12.4
Dibenzo(a,h)Anthracene	2.11	--			mg/kg							2.07 J
Dibenzofuran	NL				mg/kg							<4.6
Fluoranthene	22000	--			mg/kg							30.6
Fluorene	26281	--			mg/kg							1.94 J
Indeno(1,2,3-cd)pyrene	21.1	--			mg/kg							6.06
Naphthalene	188	--			mg/kg							<4 6
Phenanthrene	NL				mg/kg							20 8
Pyrene	29126	--			mg/kg							24.3

Notes.

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

<: Not detected above Reporting Limit (RL)

J: Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY – SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field – Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample				
				TA3-1-WALL-4	TA3-1-WALL-5	TA3-2-WALL-1	TA3-2-WALL-2	TA3-2-WALL-3
				Lab ID	L09050369-19	L09050369-20	L09050369-21	L09050369-25
				Date	5/14/2009	5/14/2009	5/14/2009	5/14/2009
3,4-Methylphenol	NL	3100	mg/kg	<0.399	0.91	<7.6	<0.752	<0.878
Acenaphthene	29219	--	mg/kg	0.156 J	0.484 J	23.4	<0.752	<0.878
Anthracene	100000	--	mg/kg	0.259 J	1.09	114	1.07	<0.878
Benzo(a)anthracene	21.1	--	mg/kg	0.721	3.41	194	1.72	0.235 J
Benzo(a)pyrene	2.11	--	mg/kg	0.617	3	159	1.45	<0.878
Benzo(b)fluoranthene	21.1	--	mg/kg	0.709	3.02	163	1.7	<0.878
Benzo(g,h,i)Perylene	NL	NL	mg/kg	0.445	2.07	70.4	1.08	<0.878
Benzo(k)fluoranthene	211	--	mg/kg	0.638	3.03	178	1.43	<0.878
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg	<0.399	<0.886	<7.6	<0.752	<0.878
Butylbenzylphthalate	100000	--	mg/kg	<0.399	<0.886	<7.6R	<0.752	<0.878
Chrysene	2110	--	mg/kg	0.846	3.7	215	1.91	0.258 J
Dibenzo(a,h)Anthracene	2.11	--	mg/kg	0.134 J	0.628 J	29	0.406 J	<0.878
Dibenzofuran	NL	--	mg/kg	<0.399	<0.886	25.1	<0.752	<0.878
Fluoranthene	22000	--	mg/kg	2.47	8.86	540	5.18	0.612 J
Fluorene	26281	--	mg/kg	0.216 J	0.55 J	37.4	<0.752	<0.878
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg	0.421	1.93	74.9	1.01	<0.878
Naphthalene	188	--	mg/kg	<0.399	<0.886	<7.6	<0.752	<0.878
Phenanthrene	NL	NL	mg/kg	1.73	6.06	503	4.62	0.4 J
Pyrene	29126	--	mg/kg	1.97	7.45	479	4.07	<1.86

Notes

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

< Not detected above Reporting Limit (RL)

J Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs		PRGs	Units		Sample		TA3-2-WALL-5		TA3-2-WALL-6		TA3-3-WALL-1		TA3-3-WALL-2	
	NL	3100		mg/kg		Lab ID	Date	L09050369-26	L09050369-27	L09050369-28	L09050369-02	L09050369-07			
3-,4-Methylphenol							5/14/2009	<8.22	<2.17	<0.392	<9.04	<1.85			
Acenaphthene	29219	--		mg/kg				58.3	<2.17	<0.392	<9.04	<1.85			
Anthracene	100000	--		mg/kg				93.7	0.573 J	<0.392	<9.04	<1.85			
Benzo(a)anthracene	21.1	--		mg/kg				<u>249</u>	1.92 J	<0.392	<9.04	<1.85			
Benzo(a)pyrene	2.11	--		mg/kg				<u>215</u>	1.7 J	<0.392	<9.04	<1.85			
Benzo(b)fluoranthene	21.1	--		mg/kg				<u>232</u>	1.88 J	<0.392	<9.04	<1.85			
Benzo(g,h,i)Perylene	NL	NL		mg/kg				91	1.21 J	<0.392	<9.04	<1.85			
Benzo(k)fluoranthene	211	--		mg/kg				210	1.61 J	<0.392	<9.04	<1.85			
bis(2-Ethylhexyl)phthalate	1231	--		mg/kg				<8.22	<2.17	<0.392	5.9 J	<1.85			
Butylbenzylphthalate	100000	--		mg/kg				<8.22	<2.17	<0.392	<9.04	<1.85			
Chrysene	2110	--		mg/kg				279	2.1 J	<0.392	<9.04	<1.85			
Dibenzo(a,h)Anthracene	2.11	--		mg/kg				<u>39.2</u>	<2.17	<0.392	<9.04	<1.85			
Dibenzofuran	NL	--		mg/kg				26.6	<2.17	<0.392	<9.04	<1.85			
Fluoranthene	22000	--		mg/kg				658	4.82	0.107 J	<9.04	<1.85			
Fluorene	26281	--		mg/kg				45	<2.17	<0.392	<9.04	<1.85			
Indeno(1,2,3-cd)pyrene	21.1	--		mg/kg				<u>97.9</u>	1.14 J	<0.392	<9.04	<1.85			
Naphthalene	188	--		mg/kg				9.28	<2.17	<0.392	<9.04	<1.85			
Phenanthrene	NL	NL		mg/kg				498	2.36	<0.392	<9.04	<1.85			
Pyrene	29126	--		mg/kg				610	2.76 J	<0.832	<19.2	<3.93			

Notes:

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

<: Not detected above Reporting Limit (RL)

J: Concentration estimated

R: Rejected

1810000183

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY – SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)												
Sample	TA3-3-WALL-3	TA3-3-WALL-4	TA3-3-WALL-5	TA3-3-WALL-6	TA3-3-WALL-7							
Lab ID	L09050369-08	L09050369-09	L09050369-10	L09050369-11	L09050369-12							
Date	5/14/2009	5/14/2009	5/14/2009	5/14/2009	5/14/2009							
Loess RGs	PRGs	Units										
3-,4-Methylphenol	NL	3100	mg/kg	<3.87	<10.1							
Acenaphthene	29219	--	mg/kg	<3.87	27.2							
Anthracene	100000	--	mg/kg	<3.87	39.9							
Benzo(a)anthracene	21.1	--	mg/kg	<3.87	93.4							
Benzo(a)pyrene	2.11	--	mg/kg	<3.87	82							
Benzo(b)fluoranthene	21.1	--	mg/kg	<3.87	88.8							
Benzo(g,h,i)Perylene	NL	NL	mg/kg	<3.87	33.5							
Benzo(k)fluoranthene	211	--	mg/kg	<3.87	93.5							
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg	<3.87	<10.1							
Butylbenzylphthalate	100000	--	mg/kg	<3.87	<10.1							
Chrysene	2110	--	mg/kg	<3.87	104							
Dibenzo(a,h)Anthracene	2.11	--	mg/kg	<3.87	12.1							
Dibenzofuran	NL	--	mg/kg	<3.87	11.3							
Fluoranthene	22000	--	mg/kg	1.92 J	268							
Fluorene	26281	--	mg/kg	<3.87	18.1							
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg	<3.87	35							
Naphthalene	188	--	mg/kg	<3.87	10.6							
Phenanthrene	NL	NL	mg/kg	1.13 J	172							
Pyrene	29126	--	mg/kg	<8.21	241							

Notes

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

< Not detected above Reporting Limit (RL)

J Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample				
				TA3-FLOOR-1	TA3-FLOOR-2	TA3-FLOOR-3	TA3-FLOOR-4	TA3-FLOOR-5
				Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
				Date	Date	Date	Date	Date
				6/5/2009	6/5/2009	6/5/2009	6/5/2009	6/5/2009
				3100	mg/kg	mg/kg	mg/kg	mg/kg
3-,4-Methylphenol	NL	3100	mg/kg	<4.31	<1.94J	<0.947	<9.2	<8.57
Acenaphthene	29219	--	mg/kg	10.4	2.44	0.335 J	8.97 J	<8.57
Anthracene	100000	--	mg/kg	14.8	4.01	0.617 J	13.6	<8.57
Benzo(a)anthracene	21.1	--	mg/kg	35.6	9.69	1.75	34.6	4.87 J
Benzo(a)pyrene	21.1	--	mg/kg	<u>33.2</u>	8.55	1.59	<u>30.9</u>	2.27 J
Benzo(b)fluoranthene	21.1	--	mg/kg	39.8	10.4	1.73	35.1	4.65 J
Benzo(g,h,i)Perylene	NL	NL	mg/kg	12.7	3.41	0.943 J	12.8	<8.57
Benzo(k)fluoranthene	211	--	mg/kg	34.9	9.19	1.66	32.8	4.78 J
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg	<4.31	<1.94	1.21	<9.2	2.79 J
Butylbenzylphthalate	100000	--	mg/kg	<4.31	<1.94	<0.947	<9.2	<8.57
Chrysene	2110	--	mg/kg	40.7	10.8	1.99	39.1	5.6 J
Dibenzo(a,h)Anthracene	2.11	--	mg/kg	4.41	<1.94	<0.947	6.02 J	<8.57
Dibenzofuran	NL	--	mg/kg	2.64 J	<1.94	<0.947	<9.2	<8.57
Fluoranthene	22000	--	mg/kg	103	25.4	4.74	90.9	13.9
Fluorene	26281	--	mg/kg	7.7	1.94	0.272 J	6.9 J	<8.57
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg	13.7	3.79	0.951	14.1	<8.57
Naphthalene	188	--	mg/kg	2.43 J	0.597 J	<0.947	<9.2	<8.57
Phenanthrene	NL	NL	mg/kg	68.5	19.3	3.36	67.3	10.4
Pyrene	29126	--	mg/kg	66.8	19	3.41	65.1	9.58 J

Notes

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

< Not detected above Reporting Limit (RL)

J: Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY - SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample Lab ID	FLOOR-6 L09060199-12	TA3-FLOOR-7 L09060199-15	TA3-FLOOR-8 L09060199-16	TA3-FLOOR-9 L09060199-19	TA3-WALL-1 L09060199-01
				Date	6/5/2009	6/5/2009	6/5/2009	6/5/2009	6/5/2009
3-,4-Methylphenol	NL	3100	mg/kg		<8.85	<2.29R	<4.32	<7.19	<1.93
Acenaphthene	29219	--	mg/kg		<8.85	<2.29	<4.32	4.35 J	2.11
Anthracene	100000	--	mg/kg		<8.85	<2.29	<4.32	6.68 J	3.33
Benzo(a)anthracene	21.1	--	mg/kg		<8.85	<2.29	<4.32	16.9	9.45
Benzo(a)pyrene	2.11	--	mg/kg		<8.85	<2.29J	<4.32	15.7	8.76
Benzo(b)fluoranthene	21.1	--	mg/kg		<8.85	1.1 J	<4.32	17.6	10.6
Benzo(g,h,i)Perylene	NL	NL	mg/kg		<8.85	<2.29J	<4.32	7.39	3.72
Benzo(k)fluoranthene	211	--	mg/kg		<8.85	0.882 J	<4.32	16.6	9.24
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg		<8.85	2.81	<4.32	<7.19	<1.93
Butylbenzylphthalate	100000	--	mg/kg		<8.85	<2.29	<4.32	<7.19	<1.93
Chrysene	2110	--	mg/kg		<8.85	<2.29	<4.32	19.3	10.8
Dibenzo(a,h)Anthracene	2.11	--	mg/kg		<8.85	<2.29J	<4.32	2.3 J	1.34 J
Dibenzofuran	NL	--	mg/kg		<8.85	<2.29	<4.32	<7.19	<1.93
Fluoranthene	22000	--	mg/kg		5.16 J	1.11 J	1.42 J	47.2	24.9
Fluorene	26281	--	mg/kg		<8.85	<2.29	<4.32	4.58 J	1.47 J
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg		<8.85	<2.29J	<4.32	8.05	4.03
Naphthalene	188	--	mg/kg		<8.85	1.15 J	<4.32	<7.19	<1.93
Phenanthrene	NL	NL	mg/kg		2.96 J	0.899 J	<4.32	35.5	17.2
Pyrene	29126	--	mg/kg		3.93 J	0.748 J	1.09 J	33.4	18.5

Notes:

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

< Not detected above Reporting Limit (RL)

J- Concentration estimated

R- Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY – SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample Lab ID	TA3-WALL-2 L09060199-04	TA3-WALL-3 L09060199-07	TA3-WALL-4 L09060199-09	TA3-WALL-5 L09060199-13	TA3-WALL-6 L09060199-14
				Date	6/5/2009	6/5/2009	6/5/2009	6/5/2009	6/5/2009
3,4-Methylphenol	NL	3100	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Acenaphthene	29219	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Anthracene	100000	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Benzo(a)anthracene	21.1	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Benzo(a)pyrene	2.11	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Benzo(b)fluoranthene	21.1	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Benzo(g,h,i)Perylene	NL	NL	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Benzo(k)fluoranthene	211	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Butylbenzylphthalate	100000	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Chrysene	2110	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Dibenzo(a,h)Anthracene	2.11	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Dibenzofuran	NL	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Fluoranthene	22000	--	mg/kg	0.112 J	<8.71	<0.442	<0.442	<0.442	<1.69
Fluorene	26281	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Naphthalene	188	--	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Phenanthrene	NL	NL	mg/kg	<0.401	<8.71	<0.442	<0.442	<0.442	<1.69
Pyrene	29126	--	mg/kg	<0.85	<18.5	<0.937	<0.937	<0.937	<3.58

Notes.

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

<: Not detected above Reporting Limit (RL)

J Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY – SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)	Loess RGs	PRGs	Units	Sample			
				TA3-WALL-7	TA3-WALL-8	TA3-WALL-9	TA3-WALL-10
3-,4-Methylphenol	NL	3100	mg/kg	<4.24	<7.21	<7.83	<7.82
Acenaphthene	29219	--	mg/kg	<4.24	<7.21	4.56 J	2 16 J
Anthracene	100000	--	mg/kg	<4.24	<7.21	10.1	3.03 J
Benzo(a)anthracene	21.1	--	mg/kg	<4.24	3.44 J	21.4	8.06
Benzo(a)pyrene	21.1	--	mg/kg	<4.24	3.26 J	18.7	7.27 J
Benzo(b)fluoranthene	21.1	--	mg/kg	<4.24	3.76 J	20.9	8.25
Benzo(g,h,i)Perylene	NL	NL	mg/kg	<4.24	<7.21	8.45	3.37 J
Benzo(k)fluoranthene	211	--	mg/kg	<4.24	3.3 J	19.5	7.61 J
bis(2-Ethylhexyl)phthalate	1231	--	mg/kg	<4.24	<7.21	<7.83	<7.82
Butylbenzylphthalate	100000	--	mg/kg	<4.24	<7.21	<7.83	<7.82
Chrysene	2110	--	mg/kg	<4.24	3.99 J	23.5	8.97
Dibenzo(a,h)Anthracene	211	--	mg/kg	<4.24	<7.21	<7.83	<7.82
Dibenzofuran	NL	--	mg/kg	<4.24	<7.21	<7.83	<7.82
Fluoranthene	22000	--	mg/kg	<4.24	10.1	57.1	24.3
Fluorene	26281	--	mg/kg	<4.24	<7.21	5.04 J	<7.82
Indeno(1,2,3-cd)pyrene	21.1	--	mg/kg	<4.24	<7.21	9.24	3.61 J
Naphthalene	188	--	mg/kg	<4.24	<7.21	<7.83	<7.82
Phenanthrene	NL	NL	mg/kg	<4.24	6.6 J	42.6	18
Pyrene	29126	--	mg/kg	<9	7.04 J	40.8	16.8

Notes

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

< Not detected above Reporting Limit (RL)

J Concentration estimated

R: Rejected

TABLE 28
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY – SVOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field – Defense Depot Memphis, Tennessee

Semi-Volatile Organic Compounds (8270C)											
Sample	TA3-FLOOR-11	TA3-FLOOR-12	TA3-WALL-11								
Lab ID	L09060378-04	L09060378-06	L09060378-07								
Date	6/12/2009	6/12/2009	6/12/2009								
Loess RGs	PRGs	Units									
	3100	mg/kg									
3-,4-Methylphenol	NL	<0.827	<0.841								
Acenaphthene	29219	mg/kg	<0.894								
Anthracene	100000	mg/kg	<0.894								
Benzo(a)anthracene	21.1	mg/kg	<0.894								
Benzo(a)pyrene	2.11	mg/kg	<0.894								
Benzo(b)fluoranthene	21.1	mg/kg	<0.894								
Benzo(g,h,i)Perylene	NL	mg/kg	<0.894								
Benzo(k)fluoranthene	211	mg/kg	<0.894								
bis(2-Ethylhexyl)phthalate	1231	mg/kg	<0.894								
Butylbenzylphthalate	100000	mg/kg	<0.894								
Chrysene	2110	mg/kg	<0.894								
Dibenzo(a,h)Anthracene	2.11	mg/kg	<0.894								
Dibenzofuran	NL	mg/kg	<0.894								
Fluoranthene	22000	mg/kg	<0.894								
Fluorene	26281	mg/kg	<0.894								
Indeno(1,2,3-cd)pyrene	21.1	mg/kg	<0.894								
Naphthalene	188	mg/kg	<0.894								
Phenanthrene	NL	mg/kg	<0.894								
Pyrene	29126	mg/kg	<1.9								

Notes:

Bold: Exceeds RG/PRG

Underline: 10X RG/PRG

Shaded: RL > RG/PRG

<. Not detected above Reporting Limit (RL)

J Concentration estimated

R. Rejected

TABLE 29
TA-3 FINAL EXCAVATION, ANALYTICAL RESULTS SUMMARY - TCL/TAL
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

				TA3-3-FLOOR-1 5/14/2009 L09050369-01	TA3-3-WALL-1 5/14/2009 L09050369-02
	Units	Loess RG	PRG		
Volatile Organic Compounds (8260B)					
1,2,4-Trimethylbenzene	mg/kg	1 26	-	0.00094 J	3.68 J
1,3,5-Trimethylbenzene	mg/kg	1 24	-	0.000666 J	1.81 J
Acetone	mg/kg	16	-	0.0572	<2.39
cis-1,2-Dichloroethene	mg/kg	0.755	-	0.00318 J	1.01 J
Ethylbenzene	mg/kg	13	-	0.00407 J	0.376 J
m-,p-Xylene	mg/kg	210	-	0.0179	1.73 J
MEK (2-Butanone)	mg/kg	8.55	-	0.0218	0.673 B
Naphthalene	mg/kg	188	-	0.0029 J	1.62 J
n-Butylbenzene	mg/kg	240	-	<0.00523	1.19 J
o-Xylene	mg/kg	210	-	0.02	1.74 J
p-Isopropyltoluene	mg/kg	NL	NL	0.0442	3.04 J
sec-Butylbenzene	mg/kg	220	-	<0.00523	0.602 J
tert-Butylbenzene	mg/kg	390	-	<0.00523	0.0753 J
Tetrachloroethene	mg/kg	0.1806	-	<0.00523	0.295 J
Toluene	mg/kg	12	-	0.0243	1.32 J
Total Xylenes	mg/kg	210	-	0.0379	3.47 J
trans-1,2-Dichloroethene	mg/kg	1.52	-	0.0117 J	0.923 J
Trichloroethene	mg/kg	0.182	-	0.00113 J	0.269 J
Vinyl chloride	mg/kg	0.0294	-	0.0045 J	0.139 J
Metals (6010B)					
Aluminum, Total	mg/kg	100000	-	8140	10700
Antimony, Total	mg/kg	7	-	7.01	10.8
Barium, Total	mg/kg	1600	-	294	2070
Beryllium, Total	mg/kg	19000	-	0.38 J	0.388 J
Cadmium, Total	mg/kg	451	-	2.54	8.46
Calcium, Total	mg/kg	NL	NL	21200	27100
Chromium, Total	mg/kg	4483	-	17.7	40.8
Cobalt, Total	mg/kg	661	-	3.28 J	2.8 J
Copper, Total	mg/kg	669	-	58.4	38.8
Iron, Total	mg/kg	10000	-	13200 J	22000 J
Magnesium, Total	mg/kg	NL	NL	2190	2800
Manganese, Total	mg/kg	1540	-	2120 J	1400 J
Nickel, Total	mg/kg	20439	-	16.6	14.1
Potassium, Total	mg/kg	NL	NL	1060	1250
Silver, Total	mg/kg	34	-	0.467 J	0.444 J
Sodium, Total	mg/kg	NL	NL	160	303
Vanadium, Total	mg/kg	7154	-	22.2	24.3
Zinc, Total	mg/kg	100000	-	1120	3730
Metals (6020)					
Arsenic, Total	mg/kg	29	-	6.49 J	8.82 J
Lead, Total	mg/kg	1536	-	339	431
Selenium, Total	mg/kg	5	-	0.346	0.293
Thallium, Total	mg/kg	67.5	-	0.142	0.157
Mercury, Total (7471)	mg/kg	307	-	0.16 J	0.0801 J
Pesticides (8081A)					
4,4'-DDD	ug/kg	99500	-	34.6 J	2.62
Polychlorinated Biphenyls (8082)					
Aroclor-1260	ug/kg	7440	-	45.8	<21.1
Herbicides (8151A)					
2,4-D	ug/kg	NL	7700000	108 J	<497
2,4-DB	ug/kg	NL	4900000	2400 J	<497
Dinoseb	ug/kg	NL	620000	66.6 J	<249
Pentachlorophenol	ug/kg	27000	-	130 J	<49.7

Notes

Bold: Exceeds RG/PRG

< Not detected above Reporting Limit

J Estimated

B Estimated result possibly biased high or false positive based on blank data

TABLE 30
FINAL CONFIRMATION RESULTS AND AVERAGE CONCENTRATIONS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample ID	Date	Loess RG Units Average	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Dibenzo(a,h) anthracene
			21.1	2.11	21.1	2.11
			mg/kg	mg/kg	mg/kg	mg/kg
			1.92	1.57	1.90	1.08
Initial Excavation						
TA-3-06	1/14/2008		4.085	4.085	4.085	4.085
TA-3-10	1/14/2008		0.2035	0.2035	0.2035	0.2035
TA-3-13	1/14/2008		2.155	2.155	2.155	2.155
TA-3-16	1/14/2008		2.125	2.125	2.125	2.125
TA-3-17	1/14/2008		1.995	1.995	1.995	1.995
Grid Samples						
TA3-1A-5	2/24/2009		0.19	0.19	0.19	0.19
TA3-12A-5	2/24/2009		6.52	5.45	5.88	1.22
TA3-1B-5	2/24/2009		0.202	0.202	0.202	0.202
TA3-1D-5	2/24/2009		13.6	12.1	12.7	3.25
TA3-1E-5	2/24/2009		2.295	2.295	2.295	2.295
TA3-A1-05	2/25/2009		0.497	0.416	0.474	0.218
TA3-A2-5	2/25/2009		0.21	0.21	0.21	0.21
TA3-A3-5	2/25/2009		0.196	0.196	0.196	0.196
TA3-A4-5	2/25/2009		0.714	0.589	0.718	0.117
TA3-A5-5	2/25/2009		0.2275	0.2275	0.2275	0.2275
TA3-B1-5	2/25/2009		0.136	0.145	0.156	0.217
TA3-B3-5	2/25/2009		0.2225	0.2225	0.2225	0.2225
TA3-B5-5	2/25/2009		1.02	1.02	1.02	1.02
TA3-C1-5	2/25/2009		1.41	1.35	1.41	0.2345
TA3-C2-5	2/25/2009		2.7	2.45	2.47	2.055
TA3-C3-6	2/25/2009		0.218	0.218	0.218	0.218
TA3-C5-5	2/25/2009		1.025	1.025	1.025	1.025
TA3-D1-5	2/25/2009		1.125	1.125	1.125	1.125
TA3-D2-5	2/25/2009		0.194	0.199	0.224	0.2205
TA3-D3-6	2/25/2009		0.21	0.21	0.21	0.21
TA3-D4-5	2/25/2009		0.2175	0.2175	0.2175	0.2175
TA3-D5-5	2/25/2009		0.2225	0.2225	0.2225	0.2225
TA3-E1-5	2/25/2009		3.7	3.17	3.04	2.265
TA3-E2-5	2/25/2009		1.15	1.15	1.15	1.15
TA3-E3-5	2/25/2009		0.2155	0.2155	0.2155	0.2155
TA3-F1-5	2/24/2009		0.21	0.21	0.21	0.21
TA3-F2-5	2/24/2009		0.2315	0.2315	0.2315	0.2315
TA3-F3-5	2/24/2009		0.1985	0.1985	0.1985	0.1985
TA3-F4-5	2/24/2009		0.216	0.216	0.216	0.216
TA3-F5-5	2/24/2009		1.08	1.08	1.08	1.08
TA3-1C-10	2/24/2009		0.491	0.432	0.527	0.2005

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TABLE 30
FINAL CONFIRMATION RESULTS AND AVERAGE CONCENTRATIONS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample ID	Date	Loess RG Units Average	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Dibenzo(a,h) anthracene
			21.1	2.11	21.1	2.11
			mg/kg	mg/kg	mg/kg	mg/kg
			1.92	1.57	1.90	1.08
Final Excavation						
Phase 1						
TA3-1-FLOOR-1	5/14/2009		0.2245	0.2245	0.2245	0.2245
TA3-1-FLOOR-2	5/14/2009		0.225	0.225	0.225	0.225
TA3-1-FLOOR-3	5/14/2009		0.2215	0.2215	0.2215	0.2215
TA3-1-WALL-1	5/14/2009		0.223	0.223	0.223	0.223
TA3-1-WALL-2	5/14/2009		0.2225	0.2225	0.2225	0.2225
TA3-1-WALL-3	5/14/2009		11.1	9.77	10.1	2.07
TA3-1-WALL-4	5/14/2009		0.721	0.617	0.709	0.134
TA3-1-WALL-5	5/14/2009		3.41	3	3.02	0.628
TA3-2-FLOOR-1	5/14/2009		0.2115	0.2115	0.2115	0.2115
TA3-2-FLOOR-2	5/14/2009		0.196	0.196	0.196	0.196
TA3-2-FLOOR-3	5/14/2009		0.169	0.169	0.169	0.169
TA3-2-FLOOR-4	5/14/2009		0.17	0.17	0.17	0.17
TA3-3-FLOOR-1	5/14/2009		4.71	4.71	4.71	4.71
TA3-3-FLOOR-2	5/14/2009		4.215	4.215	4.215	4.215
TA3-3-FLOOR-3	5/14/2009		0.209	0.209	0.209	0.209
TA3-3-FLOOR-4	5/14/2009		0.2265	0.2265	0.2265	0.2265
TA3-3-FLOOR-5	5/14/2009		0.217	0.217	0.217	0.217
TA3-3-WALL-6	5/14/2009		0.222	0.222	0.222	0.222
Phase 2						
TA3-FLOOR-3	6/5/2009		1.75	1.59	1.73	0.474
TA3-FLOOR-5	6/5/2009		4.87	2.27	4.65	4.285
FLOOR-6	6/5/2009		4.425	4.425	4.425	4.425
TA3-FLOOR-7	6/5/2009		1.145	1.145	1.1	1.145
TA3-FLOOR-8	6/5/2009		2.16	2.16	2.16	2.16
TA3-FLOOR-9	6/5/2009		16.9	1	17.6	2.3
TA3-WALL-1	6/5/2009		9.45	8.76	10.6	1.34
TA3-WALL-2	6/5/2009		0.2005	0.2005	0.2005	0.2005
TA3-WALL-3	6/5/2009		4.355	4.355	4.355	4.355
TA3-WALL-4	6/5/2009		0.221	0.221	0.221	0.221
TA3-WALL-5	6/5/2009		0.221	0.221	0.221	0.221
TA3-WALL-6	6/5/2009		0.845	0.845	0.845	0.845
TA3-WALL-7	6/5/2009		2.12	2.12	2.12	2.12
TA3-WALL-8	6/5/2009		3.44	3.26	3.76	3.605
TA3-WALL-10	6/5/2009		8.06	7.27	8.25	3.91
Phase 3						
TA3-FLOOR-10	6/12/2009		0.1945	0.1945	0.1945	0.1945
TA3-FLOOR-11	6/12/2009		0.242	0.486	0.548	0.4135
TA3-FLOOR-12	6/12/2009		0.447	0.447	0.447	0.447
TA3-WALL-11	6/12/2009		0.823	0.775	0.87	0.4205

TABLE 31
THERMAL SVE PID MEASUREMENTS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Well Field Influent	GAC Influent	GAC Effluent	TA-1A	TA-1B	TA-1C/D	TA-1E	TA-2	TA-3	TA-4
6/1/2008	51.0	60.0	0.0							
6/2/2008	68.0	75.0	3.0							
6/3/2008		57.7	12.9							
6/4/2008		64.2	6.2							
6/5/2008		87.4	9.9							
6/6/2008		65.4	5.1							
6/7/2008		85.1	14.3							
6/8/2008		110.0	18.8							
6/9/2008	111.0	103.0	24.6							
6/10/2008	159.0	183.0	24.4							
6/11/2008										
6/12/2008	95.6	94.4	54.8							
6/13/2008	94.7	93.8	43.4							
6/14/2008	67.7	93.7	44.6	7.5	23.3	29.5	0.2	28.4	14.9	6.8
6/15/2008	119.0	166.0	50.4							
6/16/2008	81.1	53.4	49.1							
6/17/2008	83.7	98.1	50.0							
6/18/2008	79.9	97.6	48.6							
6/19/2008	81.5	95.6	3.8							
6/20/2008	106.0	128.0	4.3							
6/21/2008	76.8	83.9	13.3							
6/22/2008	48.2	81.8	28.4							
6/23/2008	62.0	70.8	46.7							
6/24/2008	61.4	76.4	39.8							
6/25/2008	68.7	73.6	36.1							
6/26/2008	63.2	71.4	39.1	5.6	13.3	123.0	258.0	57.4	19.5	13.8
6/27/2008	77.8	80.8	39.7							
6/28/2008	102.0	122.0	57.0							
6/29/2008										
6/30/2008	153.0	123.0	39.9							
7/1/2008	62.3	87.3	3.3							
7/2/2008	73.9	89.2	4.4							
7/3/2008	47.0	60.3	2.1							
7/4/2008	53.0	70.1	3.7							
7/5/2008	71.7	83.3	4.0							
7/6/2008										
7/7/2008	68.7	74.8	2.9							
7/8/2008	57.5	70.8	5.0							
7/9/2008	51.6	67.6	12.3							
7/10/2008	54.5	67.6	21.1	10.9	9.5	152.0	315.0	79.9	27.3	9.6
7/11/2008	133.0	137.0	28.9							
7/12/2008	225.0	248.0	30.6							
7/13/2008										
7/14/2008	91.4	111.0	34.8							
7/15/2008	121.0	146.0	25.9							
7/16/2008	95.9	117.0	32.7							
7/17/2008	46.5	82.7	35.1							
7/18/2008	69.6	95.4	40.0							

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TABLE 31
THERMAL SVE PID MEASUREMENTS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Well Field Influent	GAC Influent	GAC Effluent	TA-1A	TA-1B	TA-1C/D	TA-1E	TA-2	TA-3	TA-4
7/19/2008	72.0	84.4	41.4							
7/20/2008										
7/21/2008	87.3	101.0	40.9							
7/22/2008	45.2	109.0	20.5							
7/23/2008	80.3	110.0	33.2	10.0	13.2	313.0	143.0	71.0	26.4	27.8
7/24/2008	100.0	94.8	36.4							
7/25/2008	108.0	127.0	2.1							
7/26/2008	63.2	79.9	1.2							
7/27/2008										
7/28/2008	100.0	105.0	2.2							
7/29/2008	80.9	91.6	0.8							
7/30/2008	62.8	71.6	1.9							
7/31/2008	76.6	87.4	1.9							
8/1/2008	187.0	203.0	4.1							
8/2/2008	188.0	170.0	12.5							
8/3/2008										
8/4/2008	93.4	114.0	38.1							
8/5/2008	55.6	68.7	19.3							
8/6/2008	77.9	90.7	37.4							
8/7/2008	144.0	186.0	52.8							
8/8/2008	152.0	197.0	116.0	3.9	9.8	638.0	133.0	952.0	29.8	66.3
8/9/2008	183.0	207.0	9.3							
8/10/2008										
8/11/2008	161.0	248.0	46.0							
8/12/2008	129.0	181.0	57.7							
8/13/2008	191.0	242.0	126.0							
8/14/2008	211.0	242.0	154.0							
8/15/2008	112.0	114.0	6.2							
8/16/2008	282.0	318.0	17.0							
8/17/2008										
8/18/2008	137.0	253.0	99.7							
8/19/2008		191.0	56.0							
8/20/2008										
8/21/2008	331.0	405.0	1.6							
8/22/2008	189.0	222.0	2.0	4.4	24.0	480.0	282.0	440.0	55.1	121.0
8/23/2008	327.0	328.0	3.0							
8/24/2008										
8/25/2008	248.0	301.0	65.4							
8/26/2008	363.0	324.0	195.0							
8/27/2008	213.0	194.0	4.2							
8/28/2008	314.0	288.0	26.8							
8/29/2008	154.0	187.0	92.0							
8/30/2008	189.0	234.0	200.0							
8/31/2008	130.0	228.0	0.3							
9/1/2008										
9/2/2008	177.0	196.0	89.7							
9/3/2008	133.0	171.0	29.7							
9/4/2008	312.0	298.0	77.8							

TABLE 31
THERMAL SVE PID MEASUREMENTS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Well Field Influent	GAC Influent	GAC Effluent	TA-1A	TA-1B	TA-1C/D	TA-1E	TA-2	TA-3	TA-4
9/5/2008	304.0	359.0	8.0	38.9	394.0	607.0	739.0	456.0	66.9	121.0
9/6/2008	266.0	271.0	0.0							
9/7/2008										
9/8/2008	218.0	286.0	41.7							
9/9/2008	249.0	289.0	187.0							
9/10/2008	414.0	414.0	260.0							
9/11/2008	299.0	374.0	15.2							
9/12/2008	247.0	304.0	45.9	31.5	413.0	819.0	685.0	344.0	48.5	108.0
9/13/2008	243.0	275.0	189.0							
9/14/2008										
9/15/2008	299.0	374.0	15.2	19.8	450.0	470.0	413.0	297.0	18.7	42.0
9/16/2008	273.0	324.0	22.7							
9/17/2008	242.0	282.0	55.2	26.6	870.0	429.0	683.0	298.0	51.0	99.3
9/18/2008	144.0	166.0	3.6	50.3	359.0	317.0	408.0	148.0	19.2	41.9
9/19/2008	155.0	197.0	5.9							
9/20/2008	224.0	245.0	7.9							
9/21/2008										
9/22/2008	143.0	174.0	171.0	1.8	238.0	90.2	138.0	135.0	33.4	83.2
9/23/2008	137.0	489.0	2.1							
9/24/2008	148.0	367.0	4.7	19.2	177.0	416.0	147.0	183.0	28.7	74.5
9/25/2008	165.0	270.0	16.9							
9/26/2008	174.0	250.0	24.0	19.0	193.0	354.0	120.0	152.0	32.6	84.7
9/27/2008	129.0	189.0	57.1							
9/28/2008										
9/29/2008	100.0	164.0	51.8							
9/30/2008	113.0	138.0	56.5	10.2	76.3	255.0	88.1	126.0	23.8	66.5
10/1/2008	92.9	125.0	36.6	10.3	57.4	230.0	86.7	103.0	23.9	56.8
10/2/2008	66.1	105.0	43.8	12.7	46.9	169.0	83.6	69.5	26.1	59.5
10/3/2008	66.8	96.7	6.3							
10/4/2008	99.5	120.0	1.8							
10/5/2008										
10/6/2008	88.4	101.0	4.8	37.3	41.9	184.0	72.3	71.8	23.3	71.1
10/7/2008	79.6	100.0	10.2							
10/8/2008	108.0	151.0	22.3	48.7	55.7	454.0	183.0	83.9	30.2	124.0
10/9/2008	107.0	126.0	22.6							
10/10/2008	83.8	110.0	36.8	25.1	28.2	225.0	108.0	59.1	23.3	99.5
10/11/2008	70.9	117.0	53.7							
10/12/2008										
10/13/2008	84.7	100.0	54.3	22.7	25.7	-	169.0	82.7	24.2	73.5
10/14/2008	55.9	80.6	61.9							
10/15/2008	62.7	86.6	3.2	18.7	19.8	105.0	67.4	24.0	25.0	52.9
10/16/2008	64.6	74.9	5.0							
10/17/2008	141.0	179.0	10.0	1.2	17.3	103.0	125.0	21.1	30.2	47.5
10/18/2008	85.0	92.4	3.9							
10/19/2008										
10/20/2008	69.7	87.9	11.1	13.2	15.5	110.0	162.0	47.7	22.0	28.4
10/21/2008	65.8	76.0	16.1							
10/22/2008	65.5	78.2	19.9	19.0	12.7	109.0	147.0	58.6	28.1	35.2

TABLE 31
THERMAL SVE PID MEASUREMENTS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Well Field Influent	GAC Influent	GAC Effluent	TA-1A	TA-1B	TA-1C/D	TA-1E	TA-2	TA-3	TA-4
10/23/2008	112.0	115.0	10.0							
10/24/2008	120.0	121.0	17.0	18.0	6.9	185.0	174.0	170.0	31.1	82.3
10/25/2008	31.8	95.1	2.2							
10/26/2008										
10/27/2008	138.0	143.0	18.7	21.5	21.1	129.0	121.0	75.8	28.3	33.4
10/28/2008	55.8	64.0	17.8							
10/29/2008	63.0	77.1	20.5	18.7	10.5	163.0	96.5	37.2	29.0	30.9
10/30/2008	67.5	67.2	40.0							
10/31/2008	72.7	68.5	47.9	ol	12.8	99.1	77.8	63.6	25.5	35.1
11/1/2008	59.5	61.1	39.2							
11/2/2008										
11/3/2008	52.7	59.8	31.8	ol	7.5	74.8	74.8	63.4	22.2	14.0
11/4/2008	63.2	58.3	46.9							
11/5/2008	57.4	56.3	34.8	ol	12.8	81.5	52.1	45.6	23.4	40.4
11/6/2008	53.6	54.2	91.8							
11/7/2008	51.3	51.6	24.6	ol	ol	51.3	47.5	ol	ol	ol
11/8/2008	50.0	53.6	24.4							
11/9/2008										
11/10/2008	34.7	45.6	19.5	ol	ol	35.8	26.7	ol	ol	ol
11/11/2008	49.0	55.0	36.1							
11/12/2008	46.8	59.5	29.1	ol	ol	63.5	49.6	ol	ol	ol
11/13/2008	54.6	63.4	34.5							
11/14/2008	64.3	64.7	48.1	ol	ol	69.4	64.8	ol	ol	ol
11/15/2008										
11/16/2008										
11/17/2008										
11/18/2008	27.6	35.8	17.3	ol	ol	54.2	42.0	ol	ol	ol
11/19/2008	34.4	38.4	26.9	ol	ol	43.4	31.7	ol	ol	ol
11/20/2008	35.1	35.6	24.9	ol	ol	39.8	35.4	ol	ol	ol
11/21/2008	33.0	34.4	32.0							
11/22/2008	26.0	27.6	22.7							
11/23/2009										
11/24/2008	32.8	37.3	39.2							
11/25/2008	21.6	29.8	25.4							
11/26/2008	25.6	26.6	27.5	ol	ol	30.2	19.7	ol	ol	ol
11/28/2008	21.5	20.5	22.9							
11/29/2008	14.0	21.1	24.9							
11/30/2009										
12/1/2008	14.3	18.2	16.2	ol	ol	26.5	15.8	ol	ol	ol
12/2/2008	11.6	11.6	14.9							
12/3/2008	24.6	23.9	26.9	ol	ol	35.6	15.3	ol	ol	ol

Notes.

1) All PID readings are in parts per million (PPM)

ol : off line

TABLE 32
THERMAL SVE AIR QUALITY CONTROL VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

	Location	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent
	Date	5/30/2008	6/18/2008	7/1/2008	7/8/2008	7/17/2008	7/23/2008	8/22/2008	9/26/2008
	Week	WEEK 1	WEEK 4	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 13	WEEK 17
Analyte	Units								
1,1,1-Trichloroethane	ppbV	6	<4	<50	<50	<50	<50	<50	<1000
1,1,2,2-Tetrachloroethane	ppbV	24000	39000	30000	19000	26000	29000	29000	330000
1,1,2-Trichloroethane	ppbV	330	450	160	92	150	140	130	<1000
1,1-Dichloroethane	ppbV	6.4	<4	<50	<50	<50	<50	<50	<1000
1,1-Dichloroethene	ppbV	50	82	<50	<50	72	92	120	<1000
1,2,4-Trichlorobenzene	ppbV	<2	15	<50	<50	<50	<50	<50	<1000
1,2,4-Trimethylbenzene	ppbV	130	37	<50	<50	<50	<50	<50	<1000
1,2-Dichloroethane	ppbV	21	74	<50	<50	<50	<50	<50	<1000
1,2-Dichloropropane	ppbV	6.6	23	<50	<50	<50	<50	<50	<1000
1,3,5-Trimethylbenzene	ppbV	38	18	<50	<50	<50	<50	<50	<1000
1,4-Dichlorobenzene	ppbV	5.4	100	<50	<50	<50	<50	<50	<1000
2-Hexanone	ppbV	--	<4	<50	<50	<50	<50	<50	<1000
Acetone	ppbV	--	1100	1200	1400	2300	3000	10000	40000
Benzene	ppbV	79	470	160	130	160	140	200	<1000
Carbon disulfide	ppbV	--	87	240	240	170	130	700	3700
Carbon tetrachloride	ppbV	2800	1600	1400	1300	1700	1500	330	<1000
Chlorobenzene	ppbV	17	64	<50	<50	<50	<50	<50	<1000
Chlorodifluoromethane	ppbV	--	--	--	--	--	--	<50	<1000
Chloroethane	ppbV	<2	10	<50	<50	<50	<50	<50	<1000
Chloroform	ppbV	41000	31000	22000	25000	31000	27000	12000	17000
Chloromethane	ppbV	240	620	680	860	600	420	320	1500
cis-1,2-Dichloroethene	ppbV	12000	11000	6500	4500	8400	8600	7100	15000
Dichlorodifluoromethane	ppbV	<2	<4	<50	<50	<50	<50	<50	<1000
Ethanol	ppbV	--	67	<200	<200	520	230	460	16000
Ethylbenzene	ppbV	41	30	<50	<50	<50	<50	<50	<1000
Heptane, n-	ppbV	--	23	<50	<50	<50	<50	<50	<1000
Hexachlorobutadiene	ppbV	3.8	<4	<50	<50	<100	<100	<50	<1000
Hexane, n-	ppbV	--	72	<50	53	<50	<50	<50	<1000
Isopropyl alcohol	ppbV	--	<4	210	200	<100	<100	120	20000
m-,p-Xylene	ppbV	18	54	--	--	--	--	<100	<2000
MEK (2-Butanone)	ppbV	--	170	150	120	290	280	670	2300
Methylene chloride	ppbV	260	150	390	630	240	410	290	2800
MIBK (methyl isobutyl ketone)	ppbV	--	<4	<50	<50	<50	<50	<50	<1000
o-Xylene	ppbV	11	19	<50	<50	<50	<50	<50	<1000
Propene	ppbV	--	1100	670	450	420	320	650	<1000
Styrene	ppbV	73	<4	<50	<50	<50	<50	<50	<1000
Tetrachloroethene	ppbV	1500	1800	1700	1700	1800	2000	2800	6100
Tetrahydrofuran	ppbV	--	31	<50	<50	<50	<50	<50	<1000
Toluene	ppbV	53	140	74	69	64	52	110	8200
trans-1,2-Dichloroethene	ppbV	--	4100	2400	2000	3500	3800	3500	5900
Trichloroethene	ppbV	28000	27000	20000	19000	35000	53000	76000	210000
Vinyl acetate	ppbV	--	83	<50	<50	<200	<200	<50	<1000
Vinyl chloride	ppbV	640	470	260	360	520	490	250	<1000

Notes:

Units: ppbV (parts per billion Volume)

--: Not Analyzed

<: Not detected above Reporting Limit (RL)

TABLE 32
THERMAL SVE AIR QUALITY CONTROL VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Location Date Week Units	GAC Influent 12/1/2008 WEEK 28	GAC Effluent 5/30/2008 WEEK 1	GAC Effluent 6/18/2008 WEEK 4	GAC Effluent 7/25/2008 WEEK 9	GAC Effluent 8/22/2008 WEEK 13	GAC Effluent 9/26/2008 WEEK 17	GAC Effluent 12/1/2008 WEEK 28
1,1,1-Trichloroethane	ppbV	<2	<0.25	<0.2	<50	<1	<0.5	<2
1,1,2,2-Tetrachloroethane	ppbV	260	18	0.29	<50	120	510	<2
1,1,2-Trichloroethane	ppbV	25	<0.25	<0.2	<50	<1	<0.5	<2
1,1-Dichloroethane	ppbV	<2	<0.25	<0.2	<50	<1	<0.5	<2
1,1-Dichloroethene	ppbV	13	<0.25	<0.2	170	<1	29	11
1,2,4-Trichlorobenzene	ppbV	<2	<0.25	<0.2	<50	<1	<0.5	<2
1,2,4-Trimethylbenzene	ppbV	5.1	<0.25	<0.2	<50	1.3	<0.5	2.1
1,2-Dichloroethane	ppbV	<2	<0.25	<0.2	79	<1	<0.5	<2
1,2-Dichloropropane	ppbV	<2	<0.25	<0.2	<50	<1	<0.5	<2
1,3,5-Trimethylbenzene	ppbV	3.2	<0.25	<0.2	<50	<1	<0.5	<2
1,4-Dichlorobenzene	ppbV	<2	<0.25	<0.2	<50	<1	<0.5	<2
2-Hexanone	ppbV	8.2	--	<0.2	<50	<1	<0.5	<2
Acetone	ppbV	5200	--	6.2	3000	57	1200	2700
Benzene	ppbV	29	<0.25	<0.2	<50	2.1	<0.5	18
Carbon disulfide	ppbV	150	--	<0.2	190	<1	8.7	63
Carbon tetrachloride	ppbV	9.6	2.4	<0.2	4700	2.2	3.1	8.5
Chlorobenzene	ppbV	2.5	<0.25	<0.2	<50	<1	<0.5	<2
Chlorodifluoromethane	ppbV	<2	--	--	--	<1	<0.5	<2
Chloroethane	ppbV	<2	<0.25	0.95	<50	<1	6.5	<2
Chloroform	ppbV	1400	40	2.5	64000	54	780	1900
Chloromethane	ppbV	27	280	600	520	550	480	16
cis-1,2-Dichloroethene	ppbV	710	10	0.84	17000	33	220	520
Dichlorodifluoromethane	ppbV	12	2.2	1.9	<50	2.6	8.5	8
Ethanol	ppbV	240	--	<0.2	270	25	<0.5	81
Ethylbenzene	ppbV	3.8	<0.25	<0.2	<50	<1	<0.5	<2
Heptane, n-	ppbV	2.4	--	<0.2	<50	<1	<0.5	<2
Hexachlorobutadiene	ppbV	<4	<0.25	<0.2	<100	<1	<0.5	<4
Hexane, n-	ppbV	4.3	--	<0.2	<50	1.1	<0.5	<2
Isopropyl alcohol	ppbV	39	--	<0.2	<100	1.2	<0.5	13
m-,p-Xylene	ppbV	7.3	<0.5	<0.4	--	2.3	<1	<4
MEK (2-Butanone)	ppbV	580	--	0.6	<50	3.9	1.2	170
Methylene chloride	ppbV	29	2.6	0.84	570	5	83	28
MIBK (methyl isobutyl ketone)	ppbV	13	--	<0.2	<50	<1	<0.5	<2
o-Xylene	ppbV	3.9	<0.25	<0.2	<50	1	<0.5	<2
Propene	ppbV	<4	--	1300	380	730	1100	<4
Styrene	ppbV	2.1	<0.25	<0.2	<50	<1	<0.5	<2
Tetrachloroethene	ppbV	66	1.3	<0.2	<50	8.7	3.2	4.6
Tetrahydrofuran	ppbV	<2	--	<0.2	<50	<1	<0.5	<2
Toluene	ppbV	12	<0.25	<0.2	<50	2.9	<0.5	<2
trans-1,2-Dichloroethene	ppbV	200	--	0.36	6600	15	120	130
Trichloroethene	ppbV	1800	21	<0.2	8100	590	150	3300
Vinyl acetate	ppbV	160	--	<0.2	<200	<1	<0.5	<8
Vinyl chloride	ppbV	41	860	540	590	330	150	28

Notes

Units: ppbV (parts per billion Volume)

-- Not Analyzed

< Not detected above Reporting Limit (F

TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-INF-E1 6/14/2008 WEEK 3	TSVE-INF-E2 6/26/2008 WEEK 5	TSVE-INF-E3 7/10/2008 WEEK 7 With trap	TSVE-INF-E4 7/23/2008 WEEK 9 With trap	TSVE-INF-E5 8/8/2008 WEEK 11	TSVE-INF-E6 8/22/2008 WEEK 13	TSVE-INF-E7 9/5/2008 WEEK 15
Primary VOCs							
1,1,2,2-Tetrachloroethane	56000	20000	6.8	2500	350	48	350
1,1,2-Trichloroethane	340 F	220 F	<0.29	3.3 F	1.1 F	0.18 F	<7.5
Carbon tetrachloride	2700	1500	0.062 F	28	2.3	0.67	4.8 F
Chloroform	73000	34000 B	4 L	550	110	21	170
cis-1,2-Dichloroethene	19000	9200	0.96	140	43	7.9	30
Tetrachloroethene	1500	1200	0.18 F	74	9.9	3.9	20
trans-1,2-Dichloroethene	6500	3100	0.55	58	16	3.9	10 F
Trichloroethene	47000	29000	1.8	1100	280	110	320
Vinyl chloride	640 F	230 F	<0.62	<32	2.4 F	0.15 F	<16
Total of Primary VOCs	206680	98450	14	4453	815	196	905
Additional VOCs							
Acetone	2100 F, B	800 F, B	12 B	60 F, B	58 B	46 B	850 B
Benzene	680 F	200 F	0.74	4.8 F	0.81 F	0.39 F	2.8 F
Chloromethane	930 F	390 F	0.32 F	8.2 F	1 F	0.19 F	2.5 F
Propene	2700 F	780 F, M	0.81 F, M	7.2 F	<3.9	0.92 F, M	6 F
Total for Additional VOCs	6410	2170	14	80	60	48	861
PID Readings (ppm)	67.7	63.2	54.5	80.3	152	189	304

Notes:

Units: ppbV (parts per billion Volume)

--: Not Analyzed

<: Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above the MDL

M: Concentration estimated due to matrix effect

B: Analyte found in method blank

Q: One or more quality control criteria failed.

TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-INF-E8	TSVE-INF-E9	TSVE-INF-E10	TSVE-TA1-A-E1	TSVE-TA1-A-E2	TSVE-TA1-A-E3	TSVE-TA1-A-E4
Date	9/18/2008	10/2/2008	10/16/2008	6/14/2008	6/26/2008	7/10/2008	7/23/2008
Week	WEEK 17	WEEK 19	WEEK 21	WEEK 3	WEEK 5	WEEK 7	WEEK 9
Units							
Primary VOCs							
1,1,2,2-Tetrachloroethane	2000	180	390	<250	8.7 F	<5.6	<2.3
1,1,2-Trichloroethane	<27	1.1 F	5.6 F	<320	<95	<7.1	<2.9
Carbon tetrachloride	7 F	0.62 F	5.8 F	13000	15000	370	90
Chloroform	610	61	1300	130000	120000	2700 L	700
cis-1,2-Dichloroethene	79	52	600	<440	51 F	<9.7	<4
Tetrachloroethene	69	7.9	58	880	580	77	29
trans-1,2-Dichloroethene	27 F	16	180	<440	24 F	<9.7	<4
Trichloroethene	1300	310	2900	1500	1100	33	18
Vinyl chloride	<58	<8.1	<86	<680	<200	<15	<6.1
Total of Primary VOCs	4092	629	5439	145380	136764	3180	837
Additional VOCs							
Acetone	2500 B	1700 B	4900 B	1500 F, B	800 F, B	45 F, B	47 B
Benzene	7.5 F	3 F	48 F	260 F	41 F	3.6 F	1.2 F
Chloromethane	10 F	3.9 F	78 F	1300	690	15 F	5.3 F
Propene	13 F	9.2 F	120 F	210 F	230 F, M	8.8 F, M	1.2 F
Total for Additional VOCs	2531	1716	5146	3270	1761	70	55
PID Readings (ppm)	144	156	64.6	7.5	5.6	10.9	10

Notes:
Units: ppbV (parts per billion Volume)
-- Not Analyzed
< Not detected above Reporting Limit (RL)
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B: Analyte found in method blank
Q: One or more quality control criteria failed.

TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA1-A- E5 8/8/2008 WEEK 11 With trap	TSVE-TA1A-E6 8/22/2008 WEEK 13	TSVE-TA1-A- E7 9/5/2008 WEEK 15	TSVE-TA1-A- E8 9/18/2008 WEEK 17	TSVE-TA1-A- E9 10/2/2008 WEEK 19	TSVE-TA1-A- E10 10/16/2008 WEEK 21	TSVE-TA1-B- E1 6/14/2008 WEEK 3
Units	ppbV	ppbV	ppbV	ppbV	ppbV	ppbV	ppbV
Primary VOCs							
1,1,2,2-Tetrachloroethane	7.7	<7.9	<5.8	24	<9.5	0.07 F	<23
1,1,2-Trichloroethane	<3.1	<10	<7.2	<23	<12	<0.22	<29
Carbon tetrachloride	160	260	8	350	210	0.059 F	<25
Chloroform	670	1000	38	2300	2600	<0.24	39
cis-1,2-Dichloroethene	5.1	6.9 F	<10	10 F	22	<0.3	1400
Tetrachloroethene	29	42	2.6 F	67	38	0.048 F	1600
trans-1,2-Dichloroethene	1.6 F	1.9 F	<10	9.5 F	4.1 F	<0.3	130
Trichloroethene	86	160	11	450	500	0.058 F	880
Vinyl chloride	<6.7	<21	<15	19 F	5.1 F	<0.47	57 F
Total of Primary VOCs	959	1471	60	3230	3379	0.2	4106
Additional VOCs							
Acetone	1400 B	1500 B	1100 B	7200 B	3200 B	3.7 B	4200 B
Benzene	7.7	26	17	380	81	0.17 F	1900
Chloromethane	78	180	21	2800	690	0.27 F	280
Propene	23	48	16 F	450	130	0.26 F	5100
Total for Additional VOCs	1509	1754	1154	10830	4101	4	11480
PID Readings (ppm)	3.9	4.4	38.9	50.3	12.7	1.2	23.3

Notes

Units: ppbV (parts per billion Volume)

-- Not Analyzed

<: Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above the MDL

M: Concentration estimated due to matrix effect

B: Analyte found in method blank

Q: One or more quality control criteria failed.

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10000001

TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA1-B- E2 6/26/2008 WEEK 5	TSVE-TA1-B- E3 7/10/2008 WEEK 7 With trap	TSVE-TA1-B- E4 7/23/2008 WEEK 9 With trap	TSVE-TA1-B- E5 8/8/2008 WEEK 11 With trap	TSVE-TA1-B-E6 8/22/2008 WEEK 13	TSVE-TA1-B- E7 9/5/2008 WEEK 15	TSVE-TA1-B- E8 9/18/2008 WEEK 17
Primary VOCs							
1,1,2,2-Tetrachloroethane	ppbV <11	ppbV 0.12 F	ppbV <0.23	ppbV 11	ppbV 0.99 F	ppbV <24	ppbV <6.9
1,1,2-Trichloroethane	ppbV <14	ppbV <1.1	ppbV <0.29	ppbV <3.2	ppbV 1.3 F	ppbV <30	ppbV <8.7
Carbon tetrachloride	ppbV <12	ppbV <0.98	ppbV <0.25	ppbV <2.8	ppbV <10	ppbV <26	ppbV <7.5
Chloroform	ppbV 9.7 F	ppbV 1.9 L	ppbV 0.54	ppbV 2.5 F	ppbV 12 F	ppbV <34	ppbV <9.7
cis-1,2-Dichloroethene	ppbV 860	ppbV 110	ppbV 5.1	ppbV 150	ppbV 2000	ppbV 1000	ppbV 130
Tetrachloroethene	ppbV 820	ppbV 35	ppbV 5.5	ppbV 130	ppbV 1200	ppbV 530	ppbV 110
trans-1,2-Dichloroethene	ppbV 77	ppbV 8.7	ppbV 0.36 F	ppbV 14	ppbV 360	ppbV 220	ppbV 25
Trichloroethene	ppbV 450	ppbV 42	ppbV 2.1	ppbV 88	ppbV 1800	ppbV 1200	ppbV 130
Vinyl chloride	ppbV 34	ppbV 5.2	ppbV <0.62	ppbV 0.98 F	ppbV 51	ppbV 53 F	ppbV 2.7 F
Total of Primary VOCs	2251	203	14	396	5425	3003	398
Additional VOCs							
Acetone	ppbV 1800 B	ppbV <13	ppbV 3.1 F, B	ppbV 1200 B	ppbV 9600 B	ppbV 5300 B	ppbV 5200 B
Benzene	ppbV 470	ppbV 12	ppbV 0.78	ppbV 29	ppbV 430	ppbV 3300	ppbV 360
Chloromethane	ppbV 36	ppbV 1.9 F	ppbV <0.77	ppbV 2.2 F	ppbV 42	ppbV 110	ppbV 12 F
Propene	ppbV 1200 M	ppbV 15 M	ppbV 0.38 F	ppbV 20	ppbV 350	ppbV 2200	ppbV 130
Total for Additional VOCs	3506	29	4	1251	10422	10910	5702
PID Readings (ppm)	13.3	9.5	13.2	9.8	24	394	359

Notes:

Units: ppbV (parts per billion Volume)

--: Not Analyzed

<: Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above the MDL

M: Concentration estimated due to matrix effect

B: Analyte found in method blank

Q: One or more quality control criteria failed

TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA1-B- E9 10/2/2008 WEEK 19	TSVE-TA1-B- E10 10/16/2008 WEEK 21	TSVE-TA1-C- E1 6/14/2008 WEEK 3	TSVE-TA1-C- E2 6/26/2008 WEEK 5	TSVE-TA1-C- E3 7/10/2008 WEEK 7 With trap	TSVE-TA1-C- E4 7/23/2008 WEEK 9 With trap	TSVE-TA1-C- E5 8/8/2008 WEEK 11 With trap
Primary VOCs	Units						
1,1,2,2-Tetrachloroethane	ppbV	0.86 F	<1	15000	170	6600	2100
1,1,2-Trichloroethane	ppbV	<2.1	<1.3	250 F	1.2 F	180 F	19 F
Carbon tetrachloride	ppbV	0.22 F	<1.1	<1100	<4.5	120 F	<99
Chloroform	ppbV	0.38 F	<1.5	1700	11 L	1500	<130
cis-1,2-Dichloroethene	ppbV	43	22	54000	120	28000	2100
Tetrachloroethene	ppbV	27	12	1500	7.8	1100	86 F
trans-1,2-Dichloroethene	ppbV	8.3	6.1	23000	65	15000	740
Trichloroethene	ppbV	35	32	140000	530	94000	10000
Vinyl chloride	ppbV	1.7 F	0.93 F	6000	12	3600	160 F
Total of Primary VOCs		116	73	241450	917	150100	15205
Additional VOCs							
Acetone	ppbV	2200 B	1200 B	2400 F, B	54 F, B	800 F, B	470 F, B
Benzene	ppbV	13	2.5	320 F	1.9 F	120 F	<190
Chloromethane	ppbV	2 F	0.83 F	500 F	2.1 F	160 F	<300
Propene	ppbV	18	7.2	1400 F	2.8 F, M	310 F	<360
Total for Additional VOCs		2233	1211	4620	61	1390	470
PID Readings (ppm)		46.9	17.3	29.5	152	313	640

Notes:
Units: ppbV (parts per billion Volume)
--: Not Analyzed
<: Not detected above Reporting Limit (RL)
F: Concentration estimated below RL and above the MDL
M: Concentration estimated due to matrix effect
B: Analyte found in method blank
Q: One or more quality control criteria failed.

TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA1-C- WO-E5 8/8/2008 WEEK 11	TSVE-TA1C-E6 8/22/2008 WEEK 13	TSVE-TA1-C- E7 9/5/2008 WEEK 15	TSVE-TA1-C- E8 9/18/2008 WEEK 17	TSVE-TA1-C- E9 10/2/2008 WEEK 19	TSVE-TA1-C- E10 10/16/2008 WEEK 21	TSVE-TA1-E- E1 6/14/2008 WEEK 3
Primary VOCs							
1,1,2,2-Tetrachloroethane	26000	1700	370	340	620	2800	230000
1,1,2-Trichloroethane	610 F	35	6.3 F	7.9 F	10 F	43 F	1800 F
Carbon tetrachloride	<600	4.1 F	<30	<8.1	<25	<230	<2800
Chloroform	230 F	19 F	<38	2.1 F	<32	<290	480 F
cis-1,2-Dichloroethene	92000	3800	700	590	480	3600	91000
Tetrachloroethene	3000	160	31	35	23	180 F	2900
trans-1,2-Dichloroethene	35000	1300	250	230	150	1100	27000
Trichloroethene	440000	15000	3100	2600 L	2200	19000	190000
Vinyl chloride	6500	78	13 F	11 F	<61	97 F	<6800
Total of Primary VOCs	603340	22096	4470	3816	3483	26820	543180
Additional VOCs							
Acetone	3500 F, B	1200 B	650 B	680 B	600 B	5600 B	3400 F, B
Benzene	160 F	64	8.9 F	6.6 F	8.3 F	130 F	960 F
Chloromethane	310 F	60 F	<90	4.8 F	9.7 F	160 F	<8400
Propene	500 F	240	19 F	12 F	24 F, M	410 F	2100 F
Total for Additional VOCs	4470	1564	677	703	642	6300	6460
PID Readings (ppm)	638	480	607	317	169	103	0.2

Notes:
Units: ppbV (parts per billion Volume)
--: Not Analyzed
<: Not detected above Reporting Limit (RL)
F: Concentration estimated below RL and above the MDL
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TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

	Sample Name	TSVE-TA1-E- E2	TSVE-TA1-E- E3	TSVE-TA1-E- E4	TSVE-TA1-E- E5	TSVE-TA1-E- WO-E5	TSVE-TA1-E- E6	TSVE-TA1-E- E7
	Date	7/10/2008	7/23/2008	8/8/2008	8/22/2008	8/22/2008	8/22/2008	9/5/2008
	Week	WEEK 7	WEEK 9	WEEK 11	WEEK 13	WEEK 13	WEEK 13	WEEK 15
	Units	With trap	With trap	With trap	With trap			
Primary VOCs								
1,1,2,2-Tetrachloroethane	ppbV	150000	5000	13000	27000	580000	77000	330 F
1,1,2-Trichloroethane	ppbV	920 F	8	<200	130 F	2000	160 F	180 F
Carbon tetrachloride	ppbV	<2600	<6.4	<170	<260	<1500	<260	<740
Chloroform	ppbV	390 F, B	2 8 F, L	<230	<340	<1900	<340	<950
cis-1,2-Dichloroethene	ppbV	34000	180	360	980	16000	3800	16000
Tetrachloroethene	ppbV	1900 F	14	71 F	170 F	2800	300	1600
trans-1,2-Dichloroethene	ppbV	9800	53	120 F	270 F	4700	1100	4300
Trichloroethene	ppbV	78000	710	2700	9100	160000	23000	160000
Vinyl chloride	ppbV	<6300	<16	<430	<650	<3600	<640	<1800
Total of Primary VOCs		275010	5968	16251	37650	765500	105360	182410
Additional VOCs								
Acetone	ppbV	3400 F, B	190 B	310 F, B	2900 F, B	18000 F, B	7300 B	32000 B
Benzene	ppbV	590 F	7.5 F	<340	<520	500 F	160 F	1200 F
Chloromethane	ppbV	<7800	5 F	<530	<800	600 F	190 F	1200 F
Propene	ppbV	1300 F, M	10 F, M	<640	150 F	1200 F	460 F	2500 F
Total for Additional VOCs		5290	213	310	3050	20300	8110	36900
PID Readings (ppm)		258	315	143	133	133	282	739

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THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
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Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA1-E- E8	TSVE-TA1-E- E9	TSVE-TA1-E- E10	TSVE-TA2-E1 6/14/2008 WEEK 3	TSVE-TA2-E2 6/26/2008 WEEK 5	TSVE-TA2-E3 7/10/2008 WEEK 7	TSVE-TA2-E4 7/23/2008 WEEK 9
Date	9/18/2008	10/2/2008	10/16/2008	6/14/2008	6/26/2008	7/10/2008	7/23/2008
Week	WEEK 17	WEEK 19	WEEK 21	WEEK 3	WEEK 5	WEEK 7	WEEK 9
Units						With trap	With trap
Primary VOCs							
1,1,2,2-Tetrachloroethane	230000	2000	110 F	9600	18000	41	110
1,1,2-Trichloroethane	<2000	53 F	83 F	45 F	<260	0.04 F	<1.6
Carbon tetrachloride	<1700	<200	<190	27 F	<220	0.053 F	0.34 F
Chloroform	<2200	<260	<250	150 F	86 F, B	0.18 F, L	5.6
cis-1,2-Dichloroethene	14000	5000	6200	1700	1500	0.34 F	2.7
Tetrachloroethene	2500	140 F	150 F	790	990	0.57	4.4
trans-1,2-Dichloroethene	4200	1300	1500	930	600	0.15 F	0.99 F
Trichloroethene	170000	19000	21000	11000	27000	17	100
Vinyl chloride	<4300	71 F	92 F	<300	<540	<0.63	<3.3
Total of Primary VOCs	420700	27564	29135	24242	48176	59	224
Additional VOCs							
Acetone	19000 F, B	10000 B	15000 B	950 F, B	1800 F, B	35 B	17 F, B
Benzene	980 F	390 F	720	780	200 F	0.38 F	0.76 F
Chloromethane	1200 F	550 F	1200	820	640 F	0.5 F	1.1 F
Propene	980 F, M	720 F	1400	2600	610 F, M	1.5 M	2.2 F
Total for Additional VOCs	22160	11660	18320	5150	3250	37	21
PID Readings (ppm)	408	83.6	125	28.4	57.4	79.9	71

Notes

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THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA2-E5	TSVE-TA2-E6	TSVE-TA2-E7	TSVE-TA2-E8	TSVE-TA2-E9	TSVE-TA2-E10	TSVE-TA3-E1
Date	8/8/2008	8/22/2008	9/5/2008	9/18/2008	10/2/2008	10/16/2008	6/14/2008
Week	WEEK 11	WEEK 13	WEEK 15	WEEK 17	WEEK 19	WEEK 21	WEEK 3
Units	ppbV	ppbV	ppbV	ppbV	ppbV	ppbV	ppbV
Primary VOCs							
1,1,2,2-Tetrachloroethane	440	1100	89	13000	5100	25	300
1,1,2-Trichloroethane	<31	<500	<12	<1000	<290	1.2 F	21
Carbon tetrachloride	<27	<430	<10	<860	<250	0.36 F	120
Chloroform	10 F	<560	1.7 F	250 F	41 F	12	210
cis-1,2-Dichloroethene	44	150 F	3.8 F	<1400	830	27	2100
Tetrachloroethene	99	1100	27	900	280	20	32
trans-1,2-Dichloroethene	19 F	<690	1.9 F	<1400	460	12	240
Trichloroethene	4400	69000	1200	60000	24000	1400	1800
Vinyl chloride	<67	<1100	<25	<2100	<620	<7	96
Total of Primary VOCs	5012	71350	1323	74150	30711	1498	4919
Additional VOCs							
Acetone	1200 B	4300 F, B	210 B	6900 F, B	7000 B	7200 B	950 B
Benzene	11 F	<860	2.5 F	170 F	280 F	50	340
Chloromethane	12 F	<1300	<30	<2600	360 F	8.6 F	220
Propene	48 F	190 F	4.9 F	<3200	410 F	150	2400
Total for Additional VOCs	1271	4490	217	7070	8050	7409	3910
PID Readings (ppm)	952	440	456	148	69.5	21.1	14.9

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TABLE 33
THERMAL SVE WELL FIELD VAPOR SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample Name	TSVE-TA3-E2	TSVE-TA3-E3	TSVE-TA3-E4	TSVE-TA3-E5	TSVE-TA3-E6	TSVE-TA3-E7	TSVE-TA3-E8
Date	6/26/2008	7/10/2008	7/23/2008	8/8/2008	8/22/2008	9/5/2008	9/18/2008
Week	WEEK 5	WEEK 7	WEEK 9	WEEK 11	WEEK 13	WEEK 15	WEEK 17
Units		With trap	With trap	With trap			
Primary VOCs							
1,1,2,2-Tetrachloroethane	400	76	120	15	86	<14	5.8 F
1,1,2-Trichloroethane	44	7.1	19	6 F	120	19	16 F
Carbon tetrachloride	2000	600	600	29	340	80	110
Chloroform	6400	1200 L	3300	1000	24000	2400	4000
cis-1,2-Dichloroethene	1600	200	350	41	810	470	140
Tetrachloroethene	160	200	230	22	230	67	68
trans-1,2-Dichloroethene	200	31	60	6.5 F	160	91	130
Trichloroethene	2100	490	1100	200	4200	730	730
Vinyl chloride	69	14	33	3.4 F	63 F	42	63
Total of Primary VOCs	12973	2818	5812	1323	30009	3899	5263
Additional VOCs							
Acetone	880 B, M	88 B	230 B	490 B	2600 B	2900 B	7500 B
Benzene	350	20	110	4 F	67 F	190	240
Chloromethane	3100	680	640	10 F	90 F	65	210
Propene	1400 M	35 M	300	7 F	170 F	310	450
Total for Additional VOCs	5730	823	1280	511	2927	3465	8400
PID Readings (ppm)	19.5	27.3	26.4	29.8	55.1	66.9	19.2

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Sample Name	TSVE-TA3-E9	TSVE-TA3-E10	TSVE-TA4-E1	TSVE-TA4-E2	TSVE-TA4-E3	TSVE-TA4-E4	TSVE-TA4-E5
Date	10/2/2008	10/16/2008	6/14/2008	6/26/2008	7/10/2008	7/23/2008	8/8/2008
Week	WEEK 19	WEEK 21	WEEK 3	WEEK 5	WEEK 7	WEEK 9	WEEK 11
Units					With trap	With trap	With trap
Primary VOCs							
1,1,2,2-Tetrachloroethane	3.9 F	<7.3	660	12000	670	2100	910
1,1,2-Trichloroethane	6.1 F	9.8	5.5 F	80 F	3.6 F	14	1.3 F
Carbon tetrachloride	80	70	220	2000	49	210	5 F
Chloroform	3400	3600	7000	83000	2500 L	6600	480
cis-1,2-Dichloroethene	340	450	54	720	8.4	33	5.7 F
Tetrachloroethene	85	140	76	2400	240	500	71
trans-1,2-Dichloroethene	62 F	110	17 F	370 F	1.9 F	15	1.7 F
Trichloroethene	510	1300	240	5700	460	1500	210
Vinyl chloride	27 F	55	<35	<640	<13	<6.1	<20
Total of Primary VOCs	4514	5735	8273	106270	3933	10972	1685
Additional VOCs							
Acetone	5100 B	7000 B	29 F, B	400 F, B	36 F, B	80 B	200 B
Benzene	84	93	14 F	120 F	1.8 F	22	<16
Chloromethane	290	38	68	250 F	5.9 F	25	<25
Propene	220	240	120	830 F, M	18 F, M	69	<30
Total for Additional VOCs	5694	7371	231	1600	62	196	200
PID Readings (ppm)	26.1	30.2	6.8	13.8	9.6	27.8	28.8

Notes.

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Sample Name	TSVE-TA4-WO-E5					TSVE-TA4-E6					TSVE-TA4-E7					TSVE-TA4-E8					TSVE-TA4-E9					TSVE-TA4-E10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	Date	Week	8/8/2008	8/22/2008	9/5/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Week	8/22/2008	9/5/2008	9/18/2008	Date	Wee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Notes:

Units: ppbV (parts per billion Volume)

--, Not Analyzed

<, Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above the MDL

M: Concentration estimated due to matrix effect

B: Analyte found in method blank

Q: One or more quality control criteria failed

TABLE 34
THERMAL SVE CONDENSATE INFLUENT SAMPLES, ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Primary VOCs	Location Date	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate	Influent Condensate
		6/16/2008	6/26/2008	7/10/2008	7/23/2008	8/8/2008	8/22/2008	9/8/2008	9/19/2008	10/2/2008	10/17/2008	11/26/2008
1,1,2,2-Tetrachloroethane	µg/L	13700	12600	10900	139	14300	0.674	2550	15000	384	162	150
1,1,2-Trichloroethane	µg/L	32.6 F	24.8	26.2	<1	<100	9.55	10 J	<50	<100	1.96	<50
Carbon tetrachloride	µg/L	21.8 F	3.83	3.32	<1	<100	0.824 F	2.48 J	<50	<100	<1	<50
Chloroform	µg/L	655	413	336	7.4	342	197	496	214	55.9	241	112
cis-1,2-Dichloroethene	µg/L	222	123	173	2.41	220	88.6	123 J	120	54.3 F	31.3	23 F
Tetrachloroethene	µg/L	35.9 F	5.52	14.2	<1	<100	9.71	27 J	39.6 F	<100	225	<50
trans-1,2-Dichloroethene	µg/L	30.9 F	17.8	36.4	0.869 F	<100	16	20.4 J	15.1 F	<100	3.43	<50
Trichloroethene	µg/L	284	178	285	7.13	566	403	581	2920	497	263	53.2
Vinyl chloride	µg/L	<50	<1	1.7	<1	<100	<1	0.394 J	<50	<100	<1	<50
Total of Primary VOCs		14982	13366	11776	157	15428	725	3810	18309	991	928	338
Additional VOCs												
Acetone	µg/L	1130	1410	1180	33 Q	4810 Q	4330	4760	10200	9850	7840	12900 Q
Benzene	µg/L	<20	1.73	3.06	<0.4	<40	1.34	4.87 J	<20	<40	1.02	<20
Chloromethane	µg/L	<50	<1	3.48	<1	<100	<1	1.19 J	<50	<100	2.33	<50
Total for Additional VOCs		1130	1412	1187	33	4610	4331	4766	10200	9850	7843	12900

Notes

Units: ppbV (parts per billion Volume)

--- Not Analyzed

< Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above the MDL

M: Concentration estimated due to matrix effect

B: Analyte found in method blank

Q: One or more quality control criteria failed

TABLE 35
THERMAL SVE CONFIRMATION SAMPLE LOCATIONS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Treatment Area	MIP Location ID	Soil Boring ID	Northing (ft)	Easting (ft)	Sample Depth (ft)	Pre-Treatment Analytical Results (mg/kg)
TA1	30B	LSB-1	281315.36	802101.93	29-30	TCE - 182
TA1	31B	LSB-2	281355.31	802104.81	21-22	TCE - 712
TA1	31B	LSB-2	281355.31	802104.81	29-30	TCE - 2420
TA1	37D	LSB-3	281589.2	802201.24	26-27	1,1,2,2-PCA - 131
TA1	38C	LSB-4	281631.85	802164.24	11-Oct	1,1,2,2-PCA - 950,000; TCE - 541,000; cDCE - 174,000
TA1	38C	LSB-4	281631.85	802164.24	23-24	ECD Response at 15V from 7 to 26 feet
TA1	38D	LSB-5	281629.05	802204.03	13-14	ECD Response at 12-15V from 12 to 23 feet
TA1	38D	LSB-5	281629.05	802204.03	18-19	1,1,2,2-PCA - 47,700; TCE - 47,100; cDCE - 23,000
TA1	38F	LSB-6	281623.51	802283.88	7-Jun	cDCE - 123,000; TCE - 21,500; PCE - 20,800
TA1	38I	LSB-7	281615.18	802403.54	12-Nov	CF - 8,080; CT - 3,350
TA1	39I	LSB-8	281655.05	802406.31	8-Jul	CF - 4,570; CT - 360
TA2	20C	LSB-9	280913.6	802114.08	28-29	TCE - 1,110
TA2	20D	LSB-10	280910.79	802154.03	19-20	TCE - 1,780
TA2	21B	LSB-11	280956.27	802076.95	29-30	TCE - 935
TA2	21C	LSB-12	280953.5	802116.92	29-30	TCE - 2,050
TA2	21D	LSB-13	280950.65	802156.81	29-30	TCE - 380
TA2	22D	LSB-14	280990.56	802159.57	13-14	1,1,2,2-PCA - 1,850,000; TCE - 170,000; PCE - 21,100
TA2	22D	LSB-14	280990.56	802159.57	29-30	TCE - 47,000; 1,1,2,2-PCA - 36,400; PCE - 851
TA2	22E	LSB-15	280987.81	802199.47	29-30	TCE - 943
TA2	23D	LSB-16	281030.53	802162.39	15-16	ECD Response increases from 2V at 11 feet to 14V at 24 feet
TA2	23D	LSB-16	281030.53	802162.39	25-26	1,1,2,2-PCA - 163,000; TCE - 23,600; PCE - 599
TA3	12E	LSB-17	280588.78	802171.75	28-29	cDCE - 3,350; 1,1,2,2-PCA - 3,110; TCE - 1,560
TA3	12F	LSB-18	280582.97	802219.15	27-28	cDCE - 948; TCE - 294
TA3	12F offset	LSB-19	280580.58	802237.05	12-13	cDCE - 1,200
TA3	12F offset	LSB-19	280580.58	802237.05	27-28	cDCE - 889
TA3	12H	LSB-20	280573.07	802302.09	12-13	TCE - 386; 1,1,2,2-PCA - 57.5
TA3	12H offset	LSB-21	280570.62	802316.48	27-28	TCE - 358; 1,1,2,2-PCA - 133
TA4	3D	LSB-22	280232.4	802106.79	3-Feb	ECD Response - 0.88V at 2 feet bgs to 0.94V at 3 feet bgs
TA4	3D	LSB-22	280232.4	802106.79	22-23	CF - 2,180; TCE - 968; CT - 527
TA4	3E	LSB-23	280229.64	802146.71	3-Feb	ECD Response - 15.8 at 2 to 3 feet bgs
TA4	3E	LSB-23	280229.64	802146.71	14-15	1,1,2,2-PCA - 190,000; CF - 96,200; TCE - 4,280
TA4	3E	LSB-23	280229.64	802146.71	28-29	ECD Response at 15V from 1 to 29 feet
TA4	4C	LSB-24	280275.07	802069.67	12-13	CT - 239
TA1	32B	LSB-25	281395.21	802107.69	3-Feb	ECD Response - 3.9V at 2 feet bgs to 5.8V at 3 feet bgs
TA1	32B	LSB-25	281395.21	802107.69	11-Oct	Maximum ECD Response - 16V (from 6 to 28.7 feet bgs)

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TABLE 35
THERMAL SVE CONFIRMATION SAMPLE LOCATIONS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Treatment Area	MIP Location ID	Soil Boring ID	Northing (ft)	Easting (ft)	Sample Depth (ft)	Pre-Treatment Analytical Results (mg/kg)
TA1	32B	LSB-25	281395.21	802107.69	20-21	Maximum ECD Response - 16V (from 6 to 28.7 feet bgs)
TA1	32C	LSB-26	281392.33	802147.58	24-25	Maximum ECD Response - 5.8V (from 24.3 to 24.4 feet bgs)
TA1	33B	LSB-27	281435.1	802110.56	27-28	Maximum ECD Response - 3.3V (from 27.5 to 27.6 feet bgs)
TA1	na	LSB-28	281422.42	802171.89	10-Sep	RI Boring SBLDG, DCE - 17,000 (at 8 to 10 feet bgs)
TA1	na	LSB-29	281519.54	802186.53	15-16	RI Boring SBLEF: 1,1,2,2-PCA - 32 (at 14 to 16 feet bgs)
TA1	na	LSB-30	281611.11	802180.77	12-Nov	DS RD Sample DS10_8_T1:1,1,2,2-PCA - 2,850,000; TCE - 671,000, cDCE - 199,(
TA1	na	LSB-30	281611.11	802180.77	25-26	No sample data
TA1	na	LSB-31	281594.05	802418.91	10-Sep	RI Boring SBLFG, CF - 14,000 ug/kg; CT - 6,800 (at 8 to 10 feet bgs)
TA4	2E	LSB-32	280189.7	802144.53	12-Nov	Maximum ECD Response - 2.2V (from 11.3 to 11.5 feet bgs)
TA4	3F	LSB-33	280226.88	802186.61	23-24	Maximum ECD Response - 2.2V (from 23.3 to 23.9 feet bgs)
TA4	4E	LSB-34	280269.54	802149.47	20-21	Maximum ECD Response - 1.0V (from 19.9 to 21.0 feet bgs)
TA4	4F	LSB-35	280266.79	802189.37	13-14	Maximum ECD Response - 1.1V (from 13.6 to 13.7 feet bgs)

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TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-1-29-30	LSB-2-21-22	LSB-2-29-30	LSB-2-29-30	LSB-3-26-27	LSB-4-10-11	LSB-4-10-11	LSB-4-10-11
Date	8/19/2008	8/18/2008	8/18/2008	9/10/2008	9/10/2008	8/18/2008	9/10/2008	10/2/2008
Area	TA-1E	TA-1E	TA-1E	TA-1E	TA-1C	TA-1C	TA-1C	TA-1C
Loess RG	Rnd 1	Rnd 1	Rnd 1	Rnd 2	Rnd 2	Rnd 1	Rnd 2	Rnd 3
Primary CVOCs (mg/Kg)								
1,1,2,2-Tetrachloroethane	<0.00254	<0.00311	<0.00255	<0.00251	<0.00295	0.226 F	4.1	<0.016
1,1,2-Trichloroethane	<0.00424	<0.00518	0.0069	<0.00419	0.000508 F	<0.474	0.0189	0.00269 F
1,1-Dichloroethane	<0.00509	<0.00622	0.00324 F	<0.00503	<0.00591	<0.569	0.0237	0.00641 F
1,2-Dichloroethane	<0.00254	<0.00311	0.00138 F	<0.00251	<0.00295	<0.284	<0.00274	<0.016
Carbon tetrachloride	<0.00424	<0.00518	<0.00426	<0.00419	<0.00492	<0.474	<0.00456	<0.0266
Chloroform	<0.0017	<0.00207	0.00644	<0.00168	<0.00197	<0.19	<0.00182	<0.0107
cis-1,2-Dichloroethene	<0.00424	<0.00518	0.286 F	<0.00419	0.132 F	4.79	25.1	19.8
Methylene chloride	<0.00424	<0.00518	<0.00426	<0.00419	<0.00492	<0.474	0.00391 F	<0.0266
Tetrachloroethene	<0.00424	<0.00518	0.00122 F	<0.00419	<0.00492	<0.474	0.0105	0.022 F
trans-1,2-Dichloroethene	<0.00424	<0.00518	0.0229	<0.00419	0.00604	0.435 F	5.17	0.515
Trichloroethene	<0.00424	<0.00518	0.225 F	<0.00419	0.0169	4.35	85.8	154
Vinyl chloride	<0.00424	<0.00518	<0.00426	<0.00419	<0.00492	<0.474	0.0283	<0.0266

Notes
Bold: Exceeds RG
Underline: 10X RG
 Shaded: RL > RG
 <: Not detected above Reporting Limit (RL)
 F: Concentration estimated < RL and > MDL
 J: Estimated
 Q: One or more quality control criteria failed.

TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Primary CVOCs (mg/Kg)	Sample Date Area Loess RG	LSB-4-10-11 10/20/2008 TA-1C Rnd 4	LSB-4-10-11 11/11/2008 TA-1C Rnd 5	LSB-4-10-11 11/17/2008 TA-1C Rnd 6	LSB-4-23-24 8/18/2008 TA-1C Rnd 1	LSB-4-23-24 9/10/2008 TA-1C Rnd 2	LSB-4-23-24 10/2/2008 TA-1C Rnd 3	LSB-4-23-24 10/20/2008 TA-1C Rnd 4	LSB-5-13-14 9/10/2008 TA-1C Rnd 2
1,1,2,2-Tetrachloroethane	0.0112	<3.44	0.229 J	0.0049 J	0.0568	1.93	3.35	<0.00352	0.00341
1,1,2-Trichloroethane	0.0627	<5.73	<0.0059	<0.00855	<0.00473	0.00765	0.0171 F	<0.00586	<0.00426
1,1-Dichloroethane	0.1500	<6.87	<0.00708	<0.0103	<0.00568	<0.00583	<0.0351	<0.00703	0.00111 F
1,2-Dichloroethane	0.0329	<3.44	<0.00354	<0.00513	<0.00284	<0.00291	<0.0176	<0.00352	<0.00256
Carbon tetrachloride	0.2150	<5.73	<0.0059	<0.00855	<0.00473	<0.00486	<0.0293	<0.00586	<0.00426
Chloroform	0.9170	<2.29	<0.00236	<0.00342	<0.00189	<0.00194	<0.0117	<0.00234	<0.0017
cis-1,2-Dichloroethene	0.7550	29.9	0.00556 F	0.00562 F	0.00203 F	0.0502	0.0383	0.00519 F	1.78
Methylene chloride	0.0305	<5.73	<0.0059	<0.00855	<0.00473	<0.00486	<0.0293	<0.00586	<0.00426
Tetrachloroethene	0.1806	<5.73	<0.0059	<0.00855	<0.00473	0.000807 F	<0.0293	<0.00586	0.0204
trans-1,2-Dichloroethene	1.5200	4.2 F	0.00155 F	<0.00855	<0.00473	0.00562	<0.0293	0.00111 F	0.0783
Trichloroethene	0.1820	145	0.0336 J	0.00898 J	0.00426 F	0.098	0.229	0.0336	13.4
Vinyl chloride	0.0294	<5.73	<0.0059	<0.00855	<0.00473	<0.00486	<0.0293	<0.00586	0.00153 F

Notes.

Bold: Exceeds RG

Underline: 10X RG

Shaded RL > RG

<: Not detected above Reporting Limit (RL)

F: Concentration estimated < RL and > MDL

J Estimated

Q One or more quality control criteria failed

1000216
1000001

TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Primary CVOCs (mg/Kg)	Sample Date Area Loess RG	LSB-5-13-14 10/2/2008 TA-1C Rnd 3	LSB-5-13-14 10/20/2008 TA-1C Rnd 4	LSB-5-18-19 9/10/2008 TA-1C Rnd 2	LSB-6-6-7 8/18/2008 TA-1B Rnd 1	LSB-6-6-7 9/10/2008 TA-1B Rnd 2	LSB-7-11-12 9/10/2008 TA-1A Rnd 2	LSB-8-7-8 9/10/2008 TA-1A Rnd 2	LSB-9-28-29 9/11/2008 TA-2 Rnd 2
1,1,2,2-Tetrachloroethane	0.0112	<0.0178	<0.00327	<0.00277	<0.345	0.00267 J	<0.00313	<0.00328	<0.00283
1,1,2-Trichloroethane	0.0627	<0.0296	<0.00545	<0.00462	<0.575	<0.00566	<0.00522	<0.00547	<0.00471
1,1-Dichloroethane	0.1500	<0.0356	<0.00654	<0.00554	<0.69	<0.00679	<0.00627	<0.00657	<0.00565
1,2-Dichloroethane	0.0329	<0.0178	<0.00327	<0.00277	<0.345	<0.00339	<0.00313	<0.00328	<0.00283
Carbon tetrachloride	0.2150	<0.0296	<0.00545	<0.00462	<0.575	<0.00566	<0.00522	<0.00547	<0.00471
Chloroform	0.9170	<0.0119	<0.00218	<0.00185	<0.23	<0.00226	<0.00209	0.00859	<0.00188
cis-1,2-Dichloroethene	0.7550	<u>9.76</u>	0.0875	<0.00462	0.0741 F	0.00546 J	0.00064 F	<0.00547	<0.00471
Methylene chloride	0.0305	<0.0296	0.00279 F	<0.00462	<0.575	<0.00566	<0.00522	<0.00547	<0.00471
Tetrachloroethene	0.1806	0.00761 F	<0.00545	<0.00462	0.37 F	0.00971 J	<0.00522	<0.00547	<0.00471
trans-1,2-Dichloroethene	1.5200	0.313	0.00591	<0.00462	<0.575	0.0006 J	<0.00522	<0.00547	<0.00471
Trichloroethene	0.1820	33.2	0.0443	<0.00462	0.236 F	0.00862 J	0.00182 F	0.00131 F	<0.00471
Vinyl chloride	0.0294	<0.0296	<0.00545	<0.00462	<0.575	<0.00566	<0.00522	<0.00547	<0.00471

Notes

- Bold:** Exceeds RG
- Underline: 10X RG
- Shaded: RL > RG
- <: Not detected above Reporting Limit (RL)
- F: Concentration estimated < RL and > MDL
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TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-10-19-20	LSB-11-29-30	LSB-12-29-30	LSB-13-29-30	LSB-14-13-14	LSB-14-29-30	LSB-14-29-30
Date	9/11/2008	9/11/2008	8/19/2008	9/11/2008	8/19/2008	9/11/2008	10/2/2008
Area	TA-2	TA-2	TA-2	TA-2	TA-2	TA-2	TA-2
Primary CVOCs (mg/Kg)	Loess RG	Rnd 2	Rnd 2	Rnd 1	Rnd 2	Rnd 1	Rnd 2
1,1,2,2-Tetrachloroethane	0.0112	<0.00315	<0.00266	<0.0029	<0.00298	<0.003	364
1,1,2-Trichloroethane	0.0627	<0.00525	<0.00443	<0.00484	<0.00496	<0.005	<9.28
1,1-Dichloroethane	0.1500	<0.0063	<0.00531	<0.0058	<0.00596	<0.00599	<11.1
1,2-Dichloroethane	0.0329	<0.00315	<0.00266	<0.0029	<0.00298	<0.003	<5.57
Carbon tetrachloride	0.2150	<0.00525	<0.00443	<0.00484	<0.00496	<0.005	<9.28
Chloroform	0.9170	<0.0021	<0.00177	<0.00193	<0.00199	<0.002	<3.71
cis-1,2-Dichloroethane	0.7550	<0.00525	<0.00443	0.00247 F	<0.00496	<0.005	<9.28
Methylene chloride	0.0305	<0.00525	<0.00443	<0.00484	<0.00496	<0.005	<9.28
Tetrachloroethane	0.1806	<0.00525	<0.00443	<0.00484	<0.00496	<0.005	1.95 F
trans-1,2-Dichloroethane	1.5200	<0.00525	<0.00443	<0.00484	<0.00496	<0.005	<9.28
Trichloroethane	0.1820	<0.00525	<0.00443	0.00773	<0.00496	<0.005	115
Vinyl chloride	0.0294	<0.00525	<0.00443	<0.00484	<0.00496	<0.005	<9.28

Notes:

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Shaded: RL > RG

< Not detected above Reporting Limit (RL)

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J Estimated

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TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-15-29-30	LSB-16-15-16	LSB-16-15-16	LSB-16-25-26	LSB-16-25-26	LSB-17-28-29	LSB-18-27-28	LSB-19-12-13
Date	9/11/2008	8/19/2008	9/11/2008	8/19/2008	9/11/2008	8/19/2008	9/12/2008	8/20/2008
Area	TA-2	TA-2	TA-2	TA-2	TA-2	TA-3	TA-3	TA-3
Loess RG	Rnd 2	Rnd 1	Rnd 2	Rnd 1	Rnd 2	Rnd 1	Rnd 2	Rnd 1
Primary CVOCs (mg/Kg)								
1,1,2,2-Tetrachloroethane	<0.00303	0.0167	<0.00313	<0.28	<0.00289	<0.00286	<0.00271	<0.00313
1,1,2-Trichloroethane	<0.00506	<0.00472	<0.00522	<0.466	0.000765 F	<0.00477	0.0011 F	<0.00522
1,1-Dichloroethene	<0.00607	<0.00566	<0.00627	<0.56	<0.00579	<0.00573	<0.00542	<0.00626
1,2-Dichloroethane	<0.00303	<0.00283	<0.00313	<0.28	<0.00289	<0.00286	<0.00271	<0.00313
Carbon tetrachloride	<0.00506	<0.00472	<0.00522	<0.466	<0.00482	<0.00477	0.00135 J	<0.00522
Chloroform	<0.00202	<0.00189	<0.00209	<0.187	<0.00193	<0.00191	0.0037	0.00351
cis-1,2-Dichloroethene	<0.00506	<0.00472	<0.00522	<0.466	0.0028 F	<0.00477	0.00612	<0.00522
Methylene chloride	<0.00506	<0.00472	<0.00522	<0.466	<0.00482	<0.00477	<0.00452	<0.00522
Tetrachloroethene	<0.00506	<0.00472	<0.00522	<0.466	0.00182 F	<0.00477	<0.00452	<0.00522
trans-1,2-Dichloroethene	<0.00506	<0.00472	<0.00522	<0.466	0.00056 F	<0.00477	0.00161 F	<0.00522
Trichloroethene	<0.00506	0.00335 F	<0.00522	2.32	0.417 F	<0.00477	0.041	<0.00522
Vinyl chloride	<0.00506	<0.00472	<0.00522	<0.466	<0.00482	<0.00477	0.00363 J	<0.00522

Notes:
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TABLE 36
THERMAL SVE SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Primary VOCs (mg/Kg)	Sample Date	Area	Loess RG	LSB-19-27-28 8/20/2008	LSB-19-27-28 9/12/2008	LSB-20-12-13 9/12/2008	LSB-21-27-28 8/20/2008	LSB-22-2-3 9/12/2008	LSB-22-22-23 9/12/2008	LSB-23-14-15 8/19/2008	LSB-23-2-3 8/19/2008
				TA-3 Rnd 1	TA-3 Rnd 2	TA-3 Rnd 2	TA-3 Rnd 1	TA-4 Rnd 2	TA-4 Rnd 2	TA-4 Rnd 1	TA-4 Rnd 1
1,1,2-Tetrachloroethane	0.0112			0.00164 F	<0.00269	<0.003	<0.00274	0.00429	<0.00314	<0.00314	<0.00306
1,1,2-Trichloroethane	0.0627			0.00139 F	0.00147 F	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051
1,1-Dichloroethane	0.1500			<0.0054	<0.00539	<0.00599	<0.00548	<0.00625	<0.00627	<0.00628	<0.00612
1,2-Dichloroethane	0.0329			<0.0027	<0.00269	<0.003	<0.00274	<0.00313	<0.00314	<0.00314	<0.00306
Carbon tetrachloride	0.2150			0.00396 F	<0.00449	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051
Chloroform	0.9170			0.00904	0.00864	0.00521 F	<0.00183	0.0132	0.00538	<0.00209	0.000513 F
cis-1,2-Dichloroethane	0.7550			0.00299 F	0.00351 F	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051
Methylene chloride	0.0305			<0.0045	<0.00449	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051
Tetrachloroethene	0.1806			<0.0045	<0.00449	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051
trans-1,2-Dichloroethene	1.5200			<0.0045	0.000681 F	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051
Trichloroethene	0.1820			0.0277	0.0239	<0.005	<0.00456	0.00093 F	<0.00523	<0.00523	<0.0051
Vinyl chloride	0.0294			<0.0045	0.00207 J	<0.005	<0.00456	<0.00521	<0.00523	<0.00523	<0.0051

Notes.

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J Estimated

Q One or more quality control criteria failed

1551000220

TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-23-28-29	LSB-23-28-29	LSB-23-28-29	LSB-23-28-29	LSB-23-28-29	LSB-24-12-13	LSB-25-2-3	LSB-25-2-3
Date	8/19/2008	9/12/2008	10/2/2008	10/20/2008	11/11/2008	8/19/2008	8/18/2008	9/10/2008
Area	TA-4	TA-4	TA-4	TA-4	TA-4	TA-4	TA-1E	TA-1E
Loess RG	Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Rnd 1	Rnd 1	Rnd 2
Primary CVOCs (mg/Kg)								
1,1,2,2-Tetrachloroethane	0.319	0.254 F	<0.0168	<0.309	<0.0164	<0.00339	1.07	0.0729
1,1,2-Trichloroethane	<0.437	0.108 F	0.0222 F	<0.515	<0.0273	<0.00564	0.0749 J	0.0228
1,1-Dichloroethane	<0.524	<0.625	<0.0336	<0.618	<0.0327	<0.00677	<0.615	0.0019 F
1,2-Dichloroethane	<0.262	<0.312	<0.0168	<0.309	<0.0164	<0.00339	<0.308	0.000803 F
Carbon tetrachloride	<0.437	<0.521	<0.028	<0.515	<0.0273	<0.00564	<0.513	<0.00509
Chloroform	<0.175	30	25.3	11.5	0.0226 J	<0.00226	<0.205	0.00299
cis-1,2-Dichloroethane	<0.437	0.0552 F	0.00488 F	<0.515	<0.0273	<0.00564	0.137 F	0.085 F
Methylene chloride	<0.437	0.136 F	0.0228 F	<0.515	<0.0273	<0.00564	<0.513	<0.00509
Tetrachloroethene	<0.437	0.234 F	0.00353 F	<0.515	<0.0273	<0.00564	0.508 F	0.0577
trans-1,2-Dichloroethene	<0.437	<0.521	<0.028	<0.515	<0.0273	<0.00564	<0.513	0.0539
Trichloroethene	2.02	3.68	0.127	0.615	<0.0273	<0.00564	12.4	1.32
Vinyl chloride	<0.437	<0.521	<0.028	<0.515	<0.0273	<0.00564	<0.513	<0.00509

Notes
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TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-25-2-3	LSB-25-10-11	LSB-25-10-11	LSB-25-10-11	LSB-25-10-11	LSB-25-20-21	LSB-25-20-21	LSB-25-20-21
Date	10/2/2008	8/18/2008	9/10/2008	10/2/2008	10/20/2008	8/18/2008	9/10/2008	10/2/2008
Area	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E
Loess RG	Rnd 3	Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 1	Rnd 2	Rnd 3
Primary CVOCs (mg/Kg)								
1,1,2,2-Tetrachloroethane	<0.0029	3.84	3.61	0.254	<0.00374	<1.42	0.0207	<0.00292
1,1,2-Trichloroethane	<0.00483	<0.531	0.151	0.0065	<0.00624	<2.37	0.000811 F	<0.00487
1,1-Dichloroethane	<0.00579	<0.638	0.018	0.000521 F	<0.00749	<2.85	0.000576 F	<0.00584
1,2-Dichloroethane	<0.0029	<0.319	<0.00323	<0.00308	<0.00374	<1.42	<0.00287	<0.00292
Carbon tetrachloride	<0.00483	<0.531	<0.00539	<0.00514	<0.00624	<2.37	<0.00478	<0.00487
Chloroform	<0.00193	<0.213	0.025	0.000903 F	<0.0025	<0.95	<0.00191	<0.00195
cis-1,2-Dichloroethene	0.00285 F	0.145 F	1.77	0.0739	<0.00624	2.58	0.0364	0.00238 F
Methylene chloride	0.00133 F	<0.531	<0.00539	<0.00514	0.00269 F	<2.37	<0.00478	0.00105 F
Tetrachloroethene	0.000666 F	<0.531	0.118	0.000591 F	<0.00624	<2.37	0.004 F	<0.00487
trans-1,2-Dichloroethene	<0.00483	<0.531	0.168 F	0.00419 F	<0.00624	0.334 F	0.0055	<0.00487
Trichloroethene	0.0306	0.703	19.1	0.307	<0.00624	12.8	0.795	0.00306 F
Vinyl chloride	<0.00483	<0.531	<0.00539	<0.00514	<0.00624	<2.37	<0.00478	<0.00487

Notes

Bold: Exceeds RG

Underline: 10X RG

Shaded: RL > RG

< Not detected above Reporting Limit (RL)

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TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-26-24-25	LSB-26-24-25	LSB-26-24-25	LSB-27-27-28	LSB-27-27-28	LSB-27-27-28	LSB-27-27-28	LSB-28-9-10	LSB-29-15-16
Date	8/18/2008	9/10/2008	10/2/2008	8/18/2008	9/10/2008	10/2/2008	8/18/2008	8/18/2008	8/18/2008
Area	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1E	TA-1D
Loess RG	Rnd 1	Rnd 2	Rnd 3	Rnd 1	Rnd 2	Rnd 3	Rnd 1	Rnd 1	Rnd 1
Primary CVOCs (mg/Kg)									
1,1,2,2-Tetrachloroethane	<0.00302	<0.003	<0.00295	0.00153 F	<0.00283	<0.00295	0.000771 F	<0.0027	<0.0027
1,1,2-Trichloroethane	0.0624	0.0408	<0.00492	0.00104 F	0.00551	0.000583 F	<0.00458	<0.00451	<0.00451
1,1-Dichloroethane	0.00124 F	0.00108 F	<0.00591	<0.00552	0.00052 F	<0.0059	<0.00549	<0.00541	<0.00541
1,2-Dichloroethane	<0.00302	<0.003	<0.00295	<0.00276	<0.00283	<0.00295	<0.00275	<0.0027	<0.0027
Carbon tetrachloride	<0.00503	<0.005	<0.00492	<0.0046	<0.00471	<0.00492	<0.00458	<0.00451	<0.00451
Chloroform	0.000991 F	0.000856 F	<0.00197	0.00068 F	0.00327	<0.00197	<0.00183	<0.0018	<0.0018
cis-1,2-Dichloroethane	0.558	0.63	<0.00492	0.117	0.476 F	0.017	<0.00458	<0.00451	<0.00451
Methylene chloride	<0.00503	<0.005	0.00111 F	<0.0046	<0.00471	0.00106 F	<0.00458	<0.00451	<0.00451
Tetrachloroethane	<0.00503	0.000669 F	<0.00492	<0.0046	0.00381 F	<0.00492	<0.00458	<0.00451	<0.00451
trans-1,2-Dichloroethane	0.0292	0.0363	<0.00492	0.00541	0.0418	<0.00492	<0.00458	<0.00451	<0.00451
Trichloroethane	0.749	0.691	<0.00492	0.106	0.749	0.00408 F	<0.00458	<0.00451	<0.00451
Vinyl chloride	<0.00503	<0.005	<0.00492	<0.0046	<0.00471	<0.00492	<0.00458	<0.00451	<0.00451

Notes:

Bold: Exceeds RG

Underline 10X RG

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F: Concentration estimated < RL and > MDL

J: Estimated

Q: One or more quality control criteria failed

1000533 1000222

1000223
1000223

TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-30-11-12	LSB-30-11-12	LSB-30-11-12	LSB-30-11-12	LSB-30-11-12	LSB-30-25-26	LSB-30-25-26	LSB-30-25-26	LSB-30-25-26
Date	8/18/2008	9/10/2008	10/2/2008	10/20/2008	11/11/2008	8/18/2008	9/10/2008	10/2/2008	10/2/2008
Area	TA-1C	TA-1C	TA-1C	TA-1C	TA-1C	TA-1C	TA-1C	TA-1C	TA-1C
Loess RG	Rnd 1	Rnd 2	Rnd 3	Rnd 4	Rnd 5	Rnd 1	Rnd 2	Rnd 3	Rnd 3
Primary CVOCs (mg/Kg)									
1,1,2,2-Tetrachloroethane	11.3	6.07	1.43 J	0.351	<0.00275	0.517	1.74	0.0901	0.0901
1,1,2-Trichloroethane	<8.71	2.49 F	0.48	<0.499	<0.00459	0.0869 F	0.21 F	0.0157	0.0157
1,1-Dichloroethane	<10.5	<5.39	0.0913	<0.599	<0.00551	<0.58	<0.562	<0.00583	<0.00583
1,2-Dichloroethane	<5.23	<2.7	0.00553 F	<0.299	<0.00275	<0.29	<0.281	<0.00291	<0.00291
Carbon tetrachloride	<8.71	<4.49	<0.0274	<0.499	<0.00459	<0.483	<0.468	<0.00486	<0.00486
Chloroform	<3.48	<1.8	<0.011	<0.2	<0.00184	<0.193	<0.187	<0.00194	<0.00194
cis-1,2-Dichloroethene	23.6	29.9	259	1.13	0.00561 J	2.71	1.49	0.00768	0.00768
Methylene chloride	<8.71	<4.49	0.00764 F	<0.499	<0.00459	<0.483	<0.468	<0.00486	<0.00486
Tetrachloroethene	<8.71	5.77	0.227	<0.499	<0.00459	<0.483	<0.468	<0.00486	<0.00486
trans-1,2-Dichloroethene	3.68 F	5.15	70.4	0.166 F	<0.00459	0.0503 F	<0.468	<0.00486	<0.00486
Trichloroethene	96.6	297	742	7.71	0.00727 J	1.26	1.05	0.00625	0.00625
Vinyl chloride	<8.71	<4.49	0.0435	<0.499	<0.00459	<0.483	<0.468	<0.00486	<0.00486

Notes

Bold: Exceeds RG

Underline 10X RG

Shaded, RL > RG

< Not detected above Reporting Limit (RL)

F Concentration estimated < RL and > MDL

J. Estimated

Q. One or more quality control criteria failed

TABLE 36
THERMAL SVE, SOIL ANALYTICAL RESULTS SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Sample	LSB-30-25-26	LSB-30-25-26	LSB-31-9-10	LSB-32-11-12	LSB-32-11-12	LSB-33-23-24	LSB-34-20-21	LSB-35-13-14
Date	10/20/2008	11/11/2008	8/20/2008	8/19/2008	9/11/2008	9/11/2008	9/11/2008	9/11/2008
Area	TA-1C	TA-1C	TA-1A	TA-4	TA-4	TA-4	TA-4	TA-4
Loess RG	Rnd 4	Rnd 5	Rnd 1	Rnd 1	Rnd 2	Rnd 2	Rnd 2	Rnd 2
Primary CVOCs (mg/Kg)								
1,1,2,2-Tetrachloroethane	0.0112	0.0415	<0.00313	3.15	<0.00314	<0.00293	<0.00293	0.00229 F
1,1,2-Trichloroethane	0.0627	<0.00501	<0.00521	0.124 F	<0.00523	0.00943	<0.00488	<0.00507
1,1-Dichloroethane	0.1500	<0.00601	<0.00625	<0.63	<0.00627	<0.00586	<0.00585	<0.00609
1,2-Dichloroethane	0.0329	<0.00301	<0.00313	<0.315	<0.00314	<0.00293	<0.00293	<0.00304
Carbon tetrachloride	0.2150	<0.00501	<0.00521	<0.525	<0.00523	<0.00489	<0.00488	<0.00507
Chloroform	0.9170	<0.002	0.0529	12	<0.00209	0.929 J	0.00127 F	<0.00203
cis-1,2-Dichloroethene	0.7550	0.00457 F	<0.00521	<0.525	<0.00523	0.00141 F	<0.00488	<0.00507
Methylene chloride	0.0305	<0.00501	<0.00521	<0.525	<0.00523	0.00137 F	<0.00488	<0.00507
Tetrachloroethene	0.1806	<0.00501	<0.00521	0.0897 F	<0.00523	0.0028 F	<0.00488	<0.00507
trans-1,2-Dichloroethene	1.5200	0.000504 F	<0.00521	<0.525	<0.00523	<0.00489	<0.00488	<0.00507
Trichloroethene	0.1820	0.00908	<0.00521	1.96	<0.00523	0.0822 F	<0.00488	<0.00507
Vinyl chloride	0.0294	<0.00501	<0.00521	<0.525	<0.00523	<0.00489	<0.00488	<0.00507

Notes

Bold: Exceeds RG

Underline: 10X RG

Shaded RL > RG

<: Not detected above Reporting Limit (RL)

F Concentration estimated < RL and > MDL

J. Estimated

Q: One or more quality control criteria failed

TABLE 37
INTERIM WATER LEVEL MEASUREMENTS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	Depth to Water	Groundwater Elevation
				15-Aug-2008 (ft, btoc)	15-Aug-2008 (ft, msl)
MW-03	Fluvial	292.35	226.85	67.82	224.53
MW-04	Fluvial	301.61	241.61	75.82	225.79
MW-05	Fluvial	304.64	244.64	79.00	225.64
MW-06	Fluvial	289.11	238.11	65.02	224.09
MW-07	Fluvial	295.10	228.10	67.46	227.64
MW-08	Fluvial	292.59	236.09	62.38	230.21
MW-10	Fluvial	288.79	230.19	64.31	224.48
MW-13	Fluvial	300.01	234.01	74.44	225.57
MW-14	Fluvial	302.22	237.22	75.26	226.96
MW-15	Fluvial	295.12	231.72	70.34	224.78
MW-28	Fluvial	294.79	240.49	57.23	237.56
MW-29	Fluvial	273.22	239.02	39.93	233.29
MW-30	Fluvial	275.14	236.14	47.90	227.24
MW-31	Fluvial	290.37	226.27	71.32	219.05
MW-32	Fluvial	285.38	232.68	63.85	221.53
MW-33	Fluvial	280.71	236.11	56.98	223.73
MW-35	Fluvial	300.46	230.86	77.60	222.86
MW-37	Intermediate	284.91	119.21	131.62	153.29
MW-51	Fluvial	275.23	220.23	NA	
MW-56	Fluvial	293.60	234.60	67.83	225.77
MW-57	Fluvial	290.77	230.77	64.57	226.20
MW-58	Fluvial	290.51	233.51	64.01	226.50
MW-59	Fluvial	300.13	227.63	74.88	225.25
MW-60	Fluvial	296.86	224.36	71.24	225.62
MW-61	Fluvial	294.04	225.54	67.78	226.26
MW-68	Fluvial	291.69	219.19	67.72	223.97
MW-69	Fluvial	307.02	224.94	83.25	223.77
MW-70	Fluvial	304.99	224.18	81.46	223.53
MW-71	Fluvial	294.40	228.90	71.11	223.29
MW-74	Fluvial	303.68	233.68	79.74	223.94
MW-75	Fluvial	303.61	232.61	79.54	224.07
MW-76	Fluvial	302.71	229.71	85.80	216.91
MW-77	Fluvial	304.42	236.42	NA	
MW-78	Fluvial	275.00	230.50	48.91	226.09
MW-87	Fluvial	294.93	231.93	71.18	223.75
MW-91	Fluvial	291.99	236.99	68.10	223.89
MW-129	Fluvial	293.01	228.01	57.19	235.82
MW-130	Fluvial	293.20	233.70	56.41	236.79
MW-132	Fluvial	300.73	227.23	76.70	224.03
MW-134	Fluvial	300.81	225.81	76.43	224.38

TABLE 37
INTERIM WATER LEVEL MEASUREMENTS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation (ft, msl)	Top of Screen Elevation (ft, msl)	Depth to Water	Groundwater Elevation
				15-Aug-2008	
				(ft, btoc)	(ft, msl)
MW-144	Fluvial	291.60	235.10	76.00	215.60
MW-147	Fluvial	289.72	229.72	75.55	214.17
MW-154	Fluvial	273.81	220.81	58.65	215.16
MW-157	Fluvial	286.78	229.78	73.12	213.66
RW-01***	Fluvial	295.71	229.57	--	--
RW-01A***	Fluvial	295.42	228.43	--	--
RW-01B	Fluvial	289.17	227.48	69.02	220.15
RW-02	Fluvial	289.92	225.93	68.34	221.58
RW-03	Fluvial	299.34	231.40	76.14	223.20
RW-04	Fluvial	305.11	230.48	82.88	222.23
MW-161	Fluvial	296.40	234.60	79.81	216.59
MW-162	Fluvial	299.70	233.39	83.51	216.19
MW-163	Fluvial	290.63	234.42	73.76	216.87
MW-164	Fluvial	287.48	231.86	71.43	216.05
MW-220	Fluvial	293.29	228.35	68.09	225.20
MW-221	Fluvial	301.52	228.40	77.04	224.48
MW-222	Fluvial	303.82	229.64	79.89	223.93
MW-223	Fluvial	303.00	229.13	78.72	224.28
MW-224	Fluvial	304.13	230.42	79.36	224.77
MW-225	Fluvial	304.52	229.54	80.74	223.78
MW-226	Fluvial	303.19	228.97	78.39	224.80
MW-227	Fluvial	299.70	236.06	73.99	225.71
MW-228	Fluvial	301.65	237.56	75.69	225.96
MW-172	Fluvial	300.28	232.28	73.98	226.30
MW-174	Fluvial	296.56	229.56	71.29	225.27
MW-175	Fluvial	291.63	224.13	66.68	224.95
MW-178	Fluvial	300.26	224.26	75.39	224.87
MW-179	Fluvial	301.16	224.16	76.51	224.65
MW-180	Fluvial	296.14	224.14	71.41	224.73
MW-187	Fluvial	302.74	226.74	76.70	226.04
MW-229	Intermediate	311.77	123.34	158.08	153.69
MW-230	Fluvial	286.57	227.32	56.19	230.38

Notes:

ft, msl feet mean sea level
ft, btoc feet below top of casing
-- Not Measured
NA Well not accessible

***: RW-01, RW-01A- Water level was below top of pump.

TABLE 38
INTERIM WELL STABILIZATION SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Sample Date	Sample Method	Sample Time	Sample Pump Depth ft, btoc	Water Depth ft, btoc	Purge Rate mL/min	Volume Purged Liters	pH	Temp °C	Specific Conductivity mS/cm	DO mg/L	ORP mV	Turbidity NTUs
MW-03	8/19/2008	PP	15:50	73	67.69	240	9.4	6.1	19.9	0.430	0.4	177.2	0.0
MW-06	8/19/2008	PP	12:35	69	64.92	200	8.0	5.7	19.7	1.174	9.3	210.1	0.0
MW-07	8/19/2008	PP	11:10	72	67.34	160	4.6	6.0	19.2	0.329	0.9	231.1	11.7
MW-10	8/19/2008	PP	14:45	64	62.68	60	8.4	7.0	27.7	0.367	0.5	50.2	83.4
MW-15	8/19/2008	PP	9:42	77	70.31	200	4.0	6.1	20.7	0.351	8.8	185.9	6.3
MW-57	8/19/2008	PP	8:40	70	64.54	208	10.7	5.9	18.6	0.124	8.7	154.1	0.0
MW-68	8/20/2008	PP	10:20	80	67.63	280	30.4	5.9	18.5	0.242	5.2	225.4	21.5
MW-74	8/19/2008	PP	11:15	85	79.75	198	8.7	6.1	23.1	0.210	6.7	186.1	0.0
MW-132	8/19/2008	PP	8:40	84	76.69	260	13.9	5.9	24.8	0.248	7.5	179.8	3.6
MW-134	8/19/2008	PP	9:50	84	76.40	240	8.4	6.2	19.4	0.251	3.2	215.1	0.0
MW-172	8/18/2008	PP	15:03	76	73.93	140	9.8	5.6	23.7	0.188	2.8	168.2	16.2
MW-174	8/18/2008	PP	11:40	75	71.23	180	4.9	5.5	22.0	0.198	4.5	154.9	0.0
MW-175	8/18/2008	PP	13:05	76	66.60	220	7.4	5.4	27.5	0.196	2.8	165.8	11.5
MW-178	8/18/2008	PP	13:30	83	75.31	260	9.0	5.9	32.7	0.256	3.8	254.3	4.6
MW-179	8/18/2008	PP	15:20	84	76.42	200	10.8	5.9	19.7	0.247	2.2	255.9	16.1
MW-180	8/20/2008	PP	12:50	79	71.35	280	11.1	5.9	19.6	0.239	3.3	228.7	11.6
MW-187	8/19/2008	PP	8:40	84	76.63	226	715.3	6.4	21.5	0.175	7.8	208.7	11.4
MW-220	8/20/2008	PP	14:00	78	68.12	180	5.5	6.3	28.9	0.415	3.8	180.9	0.0
MW-221	8/20/2008	PP	15:55	85	76.95	240	12.4	5.9	27.7	0.386	1.0	153.7	0.0
MW-222	8/19/2008	PP	13:45	81	79.21	156	3.6	6.2	38.8	0.230	3.8	-56.2	1.6
MW-223	8/18/2008	PP	9:50	88	78.64	240	24.0	5.9	29.2	0.259	7.9	228.1	0.0
MW-224	8/18/2008	PP	11:55	84	79.34	240	11.3	6.0	35.6	2.740	3.7	217.0	7.2
MW-225	8/20/2008	PP	10:58	85	80.24	262	15.5	6.5	31.0	0.238	2.7	96.6	17.7
MW-226	8/20/2008	PP	12:07	84	78.47	162	3.8	6.6	29.2	0.238	2.8	166.8	0.0
MW-227	8/18/2008	PP	10:20	76	74.00	211	12.7	5.6	31.6	0.371	3.3	130.4	5.0
MW-228	8/18/2008	PP	8:30	77	75.63	216	6.0	5.5	31.9	0.193	3.6	175.7	0.0

Note:

PP, Portable Pump

TABLE 39
INTERIM GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Well ID	MW-03	MW-06	MW-07	MW-10	MW-15	MW-57	MW-68	MW-74	MW-132
	Date	8/19/2008	8/19/2008	8/19/2008	8/19/2008	8/19/2008	8/19/2008	8/20/2008	8/19/2008	8/19/2008
Units										
Primary CVOCs										
1,1,2,2-Tetrachloroethane	ug/L	0.425 F	8.1	<0.5	1.39	0.988	<0.5	<0.5	15.4	0.599
1,1-Dichloroethene	ug/L	10.4	<1	26.8	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	1.35	<1	<1	6.35	6.04	<1	<1	<1
Chloroform	ug/L	0.229 F	29.4	0.288 F	0.373	33.4	12.6	<0.3	<0.3	0.13 F
cis-1,2-Dichloroethene	ug/L	0.348 F	23.1	0.282 F	0.691 F	3.07	<1	<1	<1	<1
Tetrachloroethene	ug/L	5.71	0.365 F	61.2	0.343 F	2.99	2.18	<1	0.474 F	1.06
Trichloroethene	ug/L	5.8	14.2	30.9	2.22	44.2	29.2	<1	3.64	0.305 F
Other VOCs										
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,1-Dichloroethane	ug/L	0.329 F	<1	1.33	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	<0.5	0.345 F	<0.5	0.258 F	<0.5	<0.5	<0.5	<0.5

<: Not detected above Reporting Limit (RL)
F: Concentration estimated below RL and above MDL
M: Concentration estimated due to matrix effect

TABLE 39

INTERIM GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Well ID	MW-134	MW-172	MW-174	MW-175	MW-178	MW-179	MW-180	MW-187	MW-220
	Date	8/19/2008	8/18/2008	8/18/2008	8/18/2008	8/18/2008	8/18/2008	8/20/2008	8/20/2008	8/20/2008
Units										
Primary CVOCs										
1,1,2,2-Tetrachloroethane	ug/L	<0.5	<0.5	1.4	<0.5	<0.5	<0.5	1.35	<0.5	<0.5
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	0.558 F	<1	37
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<0.3	<0.3	0.345	0.496	0.135 F	0.125 F	<0.3	0.139 F	0.201 F
cis-1,2-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	0.535 F	<1	<1	0.28 F	0.824 F	0.597 F	0.766 F	<1	16.4
Trichloroethene	ug/L	<1	<1	<1	0.438 F	0.488 F	<1	0.978 F	<1	14.6
Other VOCs										
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	0.923	<0.4	<0.4	<0.4	<0.4
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	0.864 F
1,2-Dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.331 F

<: Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above MDL

M: Concentration estimated due to matrix effect

TABLE 39
INTERIM GROUNDWATER ANALYTICAL RESULTS SUMMARY, VOCs
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Analyte	Well ID	MW-221	MW-222	MW-223	MW-224	MW-225	MW-226	MW-227	MW-228
	Date	8/20/2008	8/19/2008	8/18/2008	8/18/2008	8/20/2008	8/20/2008	8/18/2008	8/18/2008
Units									
Primary CVOCs									
1,1,2,2-Tetrachloroethane	ug/L	0.147 F	1.36	0.366 F	<0.5	13.9	<0.5	5.14	0.22 F
1,1-Dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	3.52	<1
Chloroform	ug/L	<0.3	<0.3	0.252 F	<0.3	0.155 F	0.157 F	30.9	2.81
cis-1,2-Dichloroethene	ug/L	<1	4.12	<1	<1	0.889 F	<1	2.89	<1
Tetrachloroethene	ug/L	<1	0.337 F	0.262 F	0.771 F	0.644 F	0.417 F	1.81	<1
Trichloroethene	ug/L	1.19	1.18	2.32	<1	19.6	<1	28.4	0.911 F
Other VOCs									
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,1-Dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	ug/L	<0.5	0.448 F	<0.5	<0.5	<0.5	<0.5	0.768	<0.5

<: Not detected above Reporting Limit (RL)

F: Concentration estimated below RL and above MDL

M: Concentration estimated due to matrix effect

TABLE 40
COST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Task	Labor	Subcontracts	Other Direct Cost	Total
Project Management and Coordination	\$173,307	\$0	\$3,618	\$176,925
Pre-Construction and Baseline Sampling	\$30,345	\$248,223	\$14,650	\$293,218
Fluvial SVE Construction	\$101,736	\$277,439	\$107,744	\$486,919
Fluvial SVE Year 1 Operations	\$66,307	\$54,356	\$50,075	\$170,738
Loess ET&D	\$186,678	\$295,505	\$236,632	\$718,815
Thermal SVE Operations	\$285,412	\$3,405,226	\$1,098,423	\$4,789,061
Interim Groundwater Sampling	\$7,519	\$12,926	\$3,059	\$23,504
Reporting	\$118,472	\$10,018	\$140	\$128,630
Total	\$969,776	\$4,303,693	\$1,514,341	\$6,787,810

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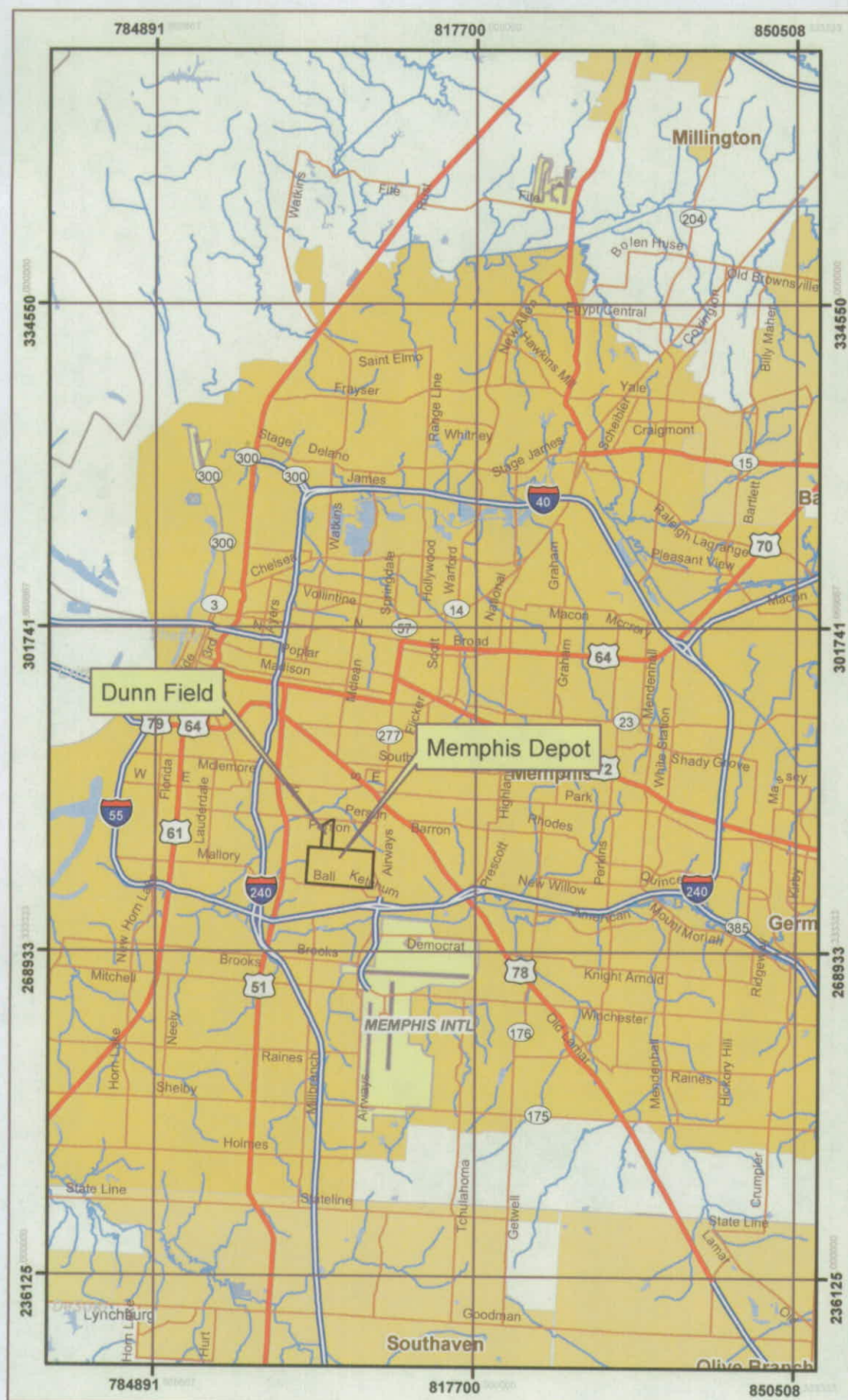
FIGURES

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Figure 1

SITE LOCATION MAP

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORTDUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEEProjection: NAD 1927 StatePlane Tennessee
Units: Feet

0 0.6 1.2 1.8 2.4 3 Miles

Installation Location
Memphis, TennesseeDate: September 2009
Edition: Rev 1



Figure 2

**AREA DESIGNATIONS
AT DUNN FIELD**

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet
Aerial Photo Date: 2006

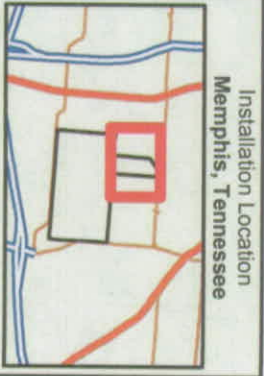




Figure 3

**GROUNDWATER
ELEVATION CONTOUR
MAP**
14 OCTOBER 2008

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

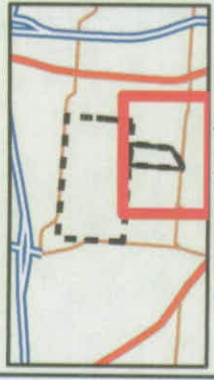
DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

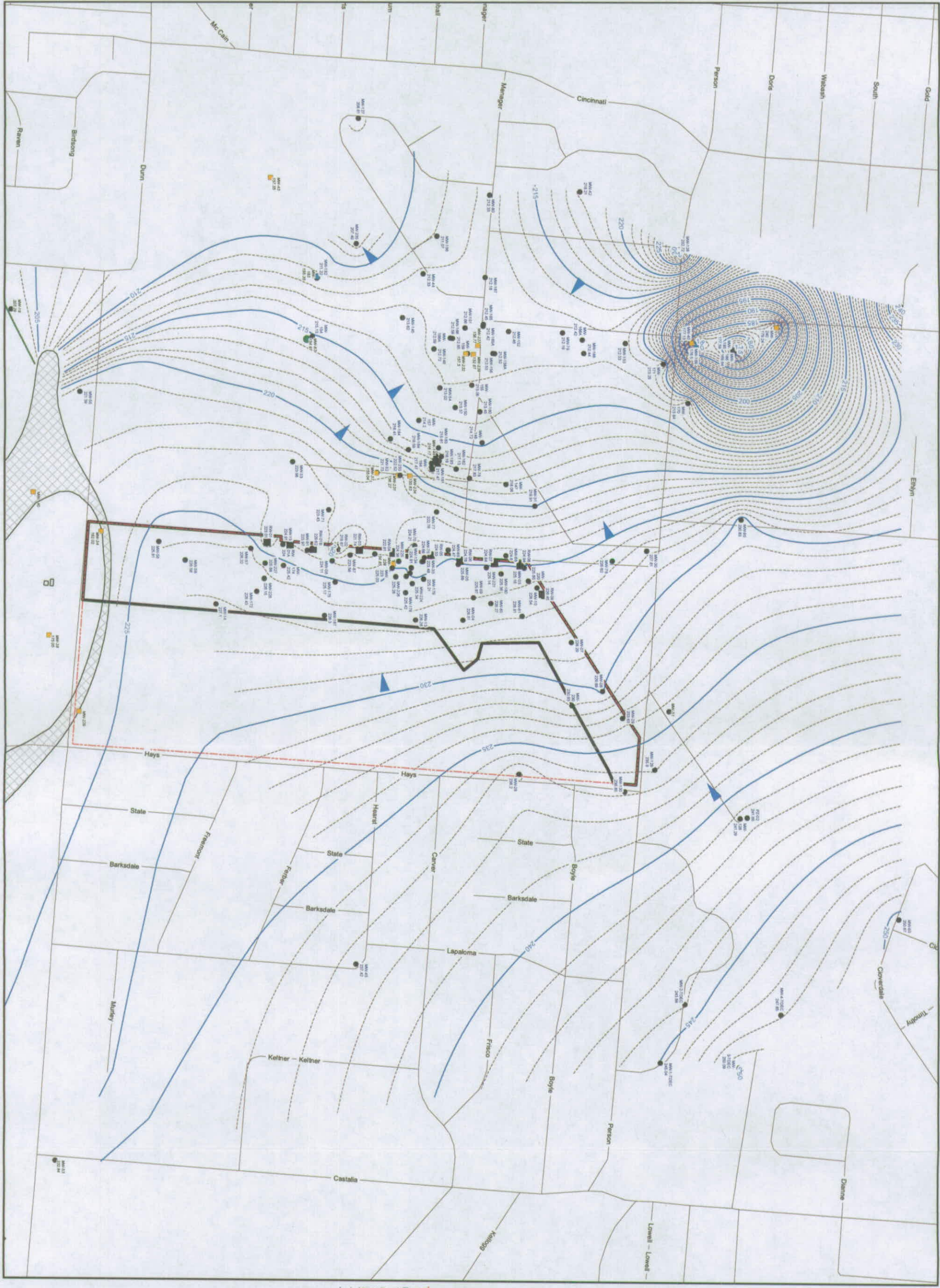
- Monitoring Well Screened in the Fluvial Aquifer
- Recovery Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- Monitoring Well Screened in the Transition Zone
- Monitoring Well Screened in the Memphis Aquifer
- Dunn Field Boundary
- ClayArea Clay Elevation Exceeds Groundwater Elevation 100.12
- Blue non-italic value used for groundwater contours 100.12
- MM-237 Black italic value not used for groundwater contours 100.15 (non-fluvial well or anomalous reading)
- Groundwater Contours**
 - 1-ft Contour
 - 5-ft Contour
- Groundwater Flow Direction



Feet



Installation Location
Memphis, Tennessee



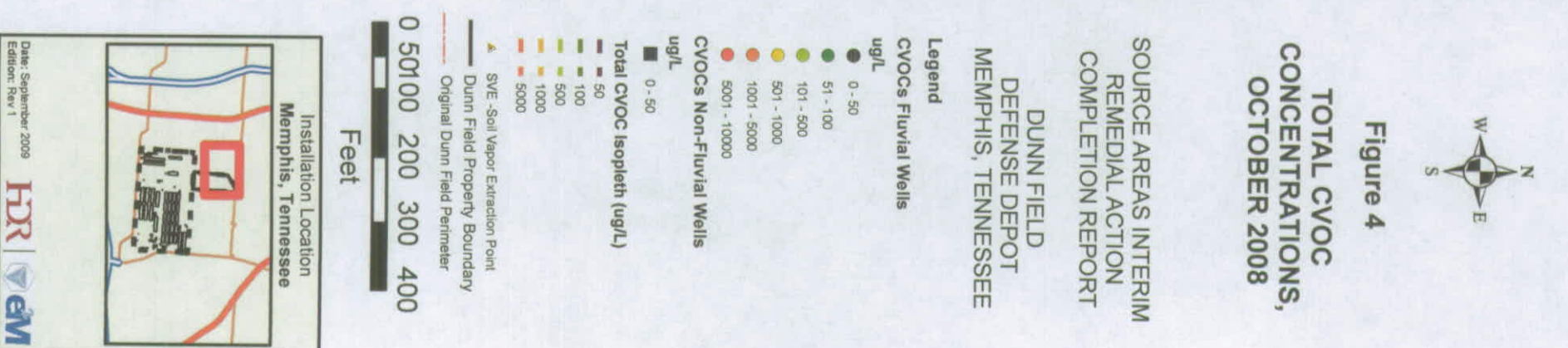


FIGURE 5
TCE AND TOTAL VOC CONCENTRATIONS IN IRA EFFLUENT
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

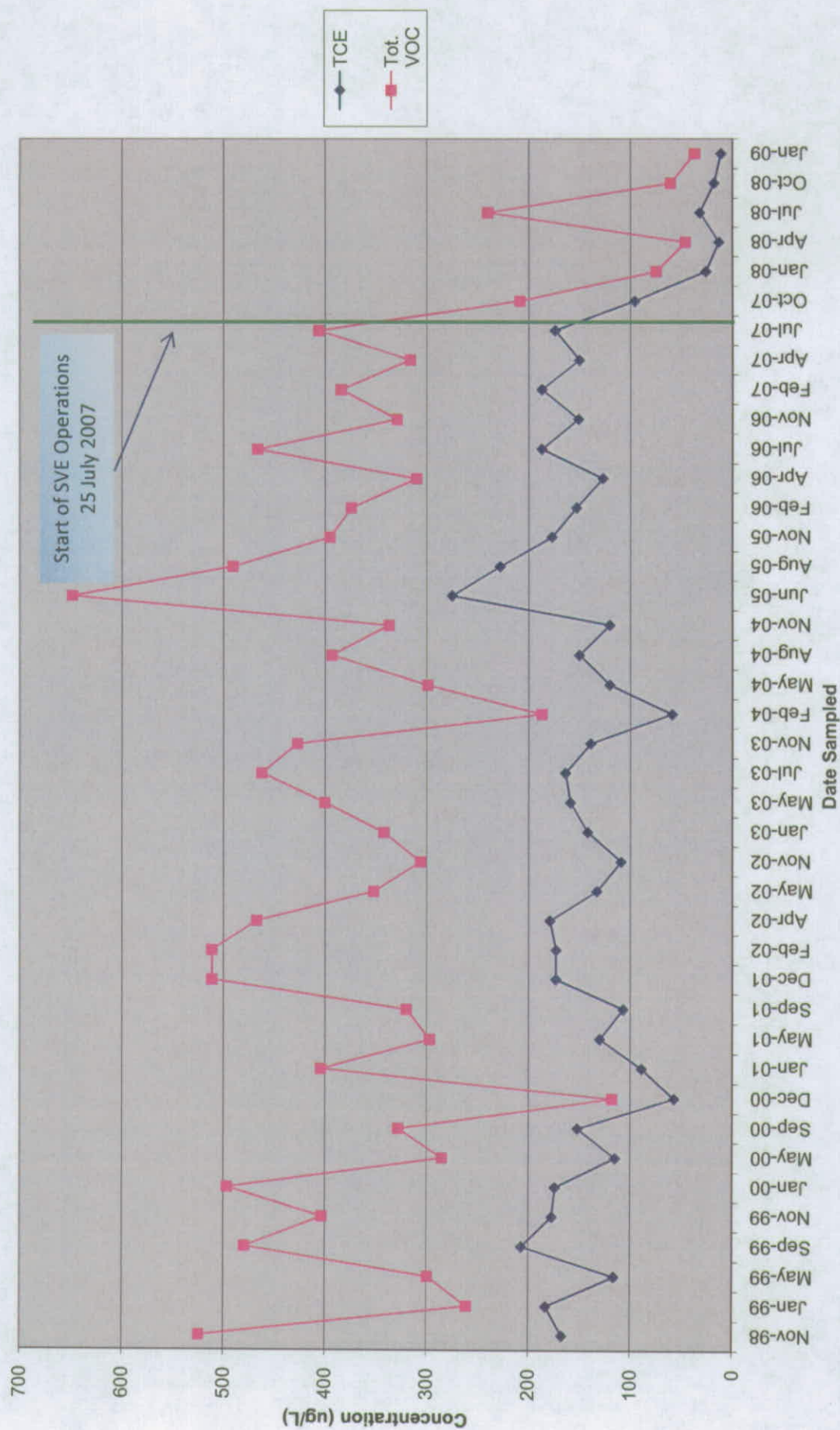


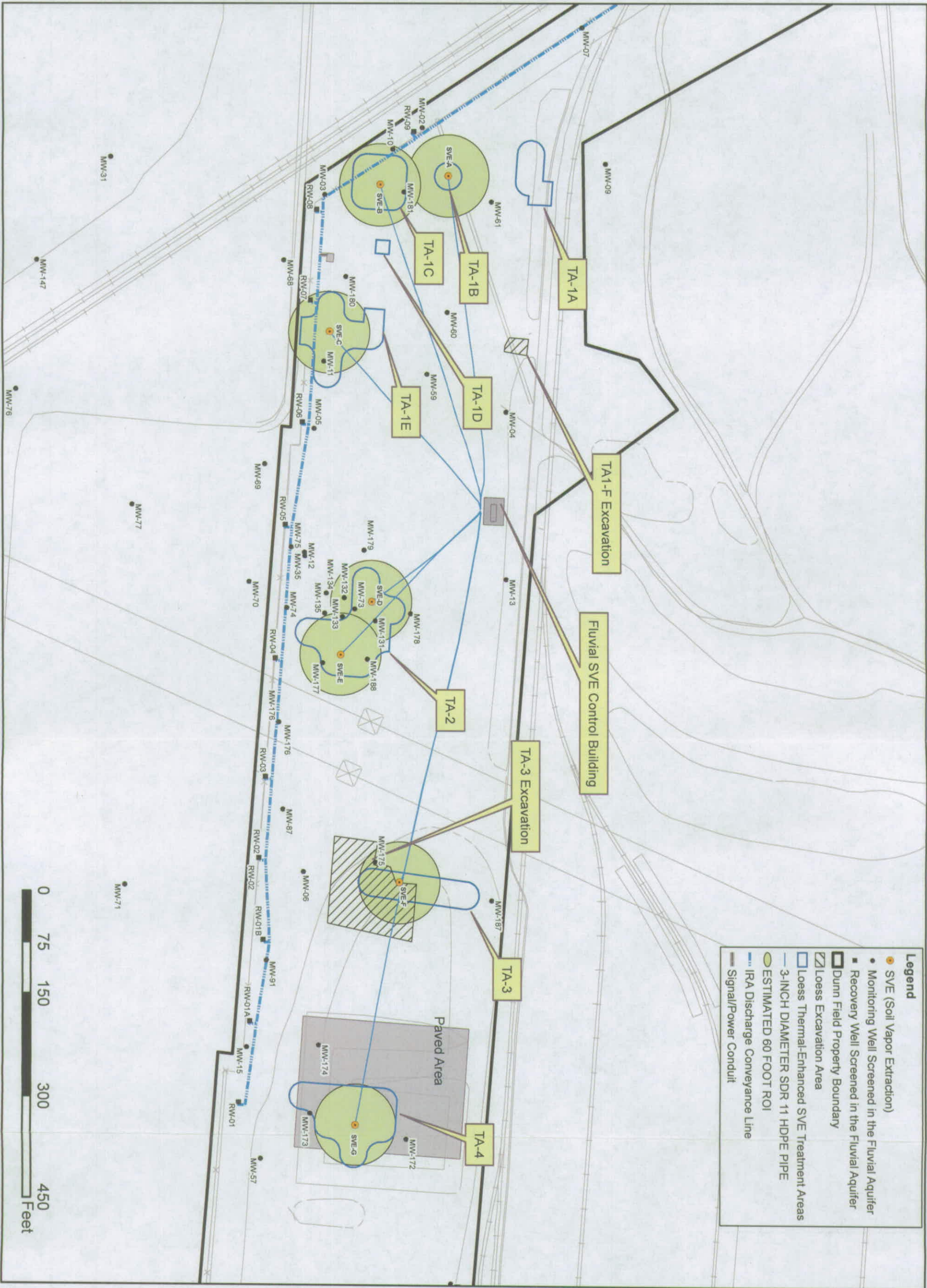


Figure 6

SOURCE AREAS
SUBSURFACE
SOIL REMEDY

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



Installation Location
Memphis, Tennessee

Date: September 2009
Edition: Rev 1

HDR | GDM



Figure 7

SOURCE AREAS
GROUNDWATER REMEDY

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

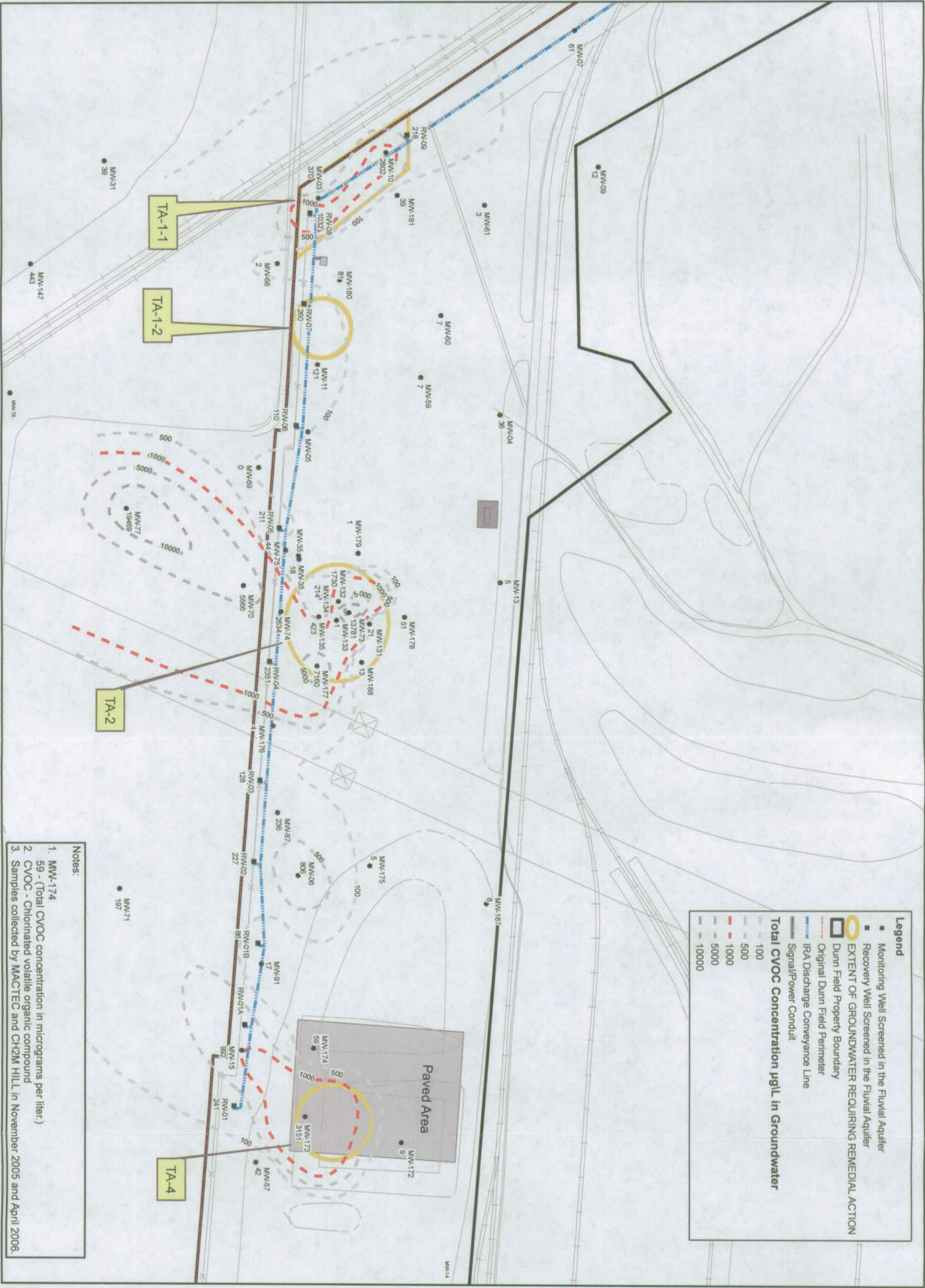


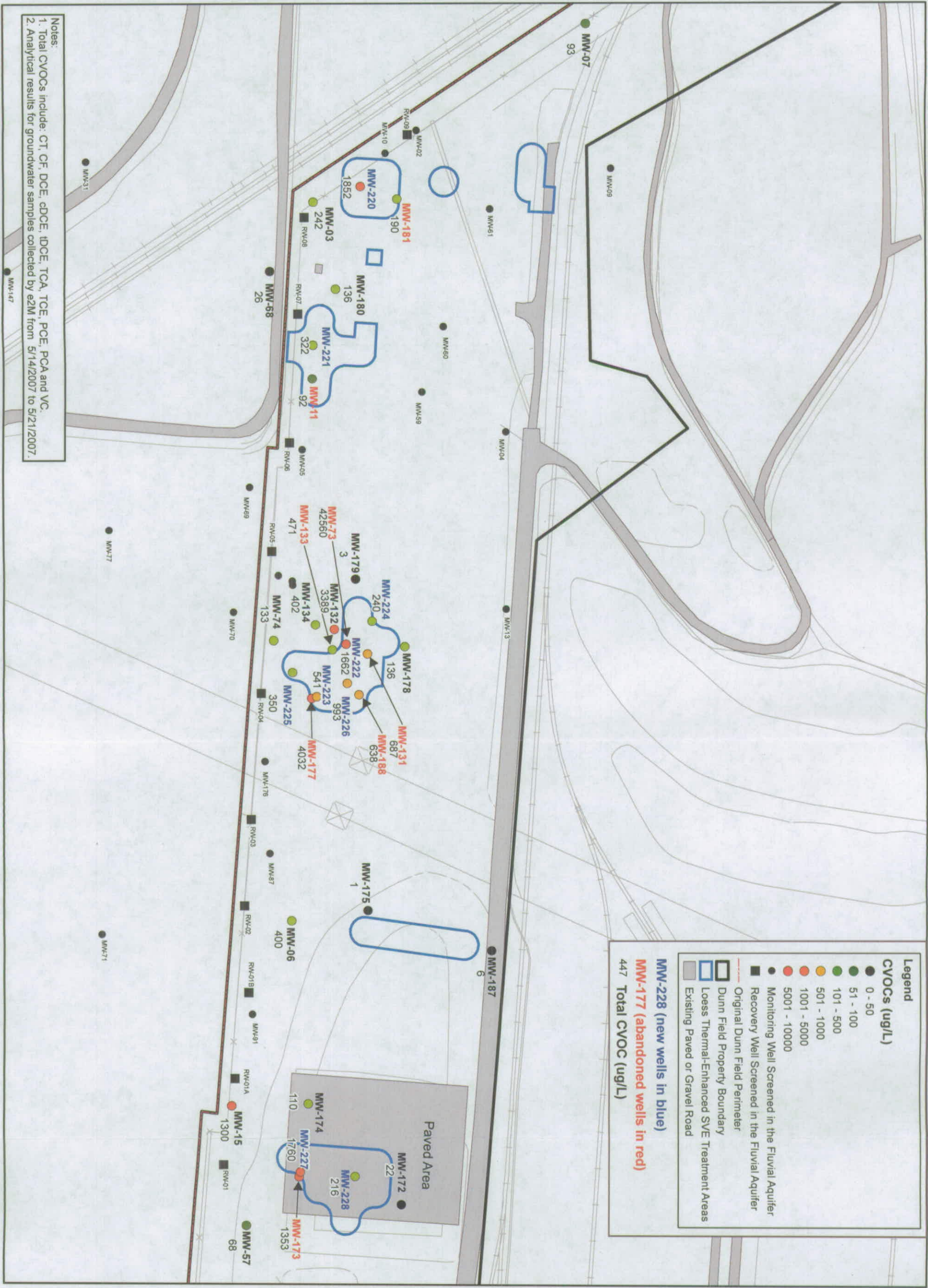


Figure 8

BASELINE MONITORING
WELL LOCATIONS

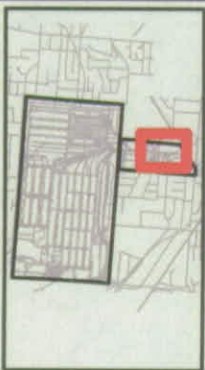
SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



0 50 100 150 200 Feet

Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet



Installation Location
Memphis, Tennessee

Date: September 2009
Edition: Rev 1



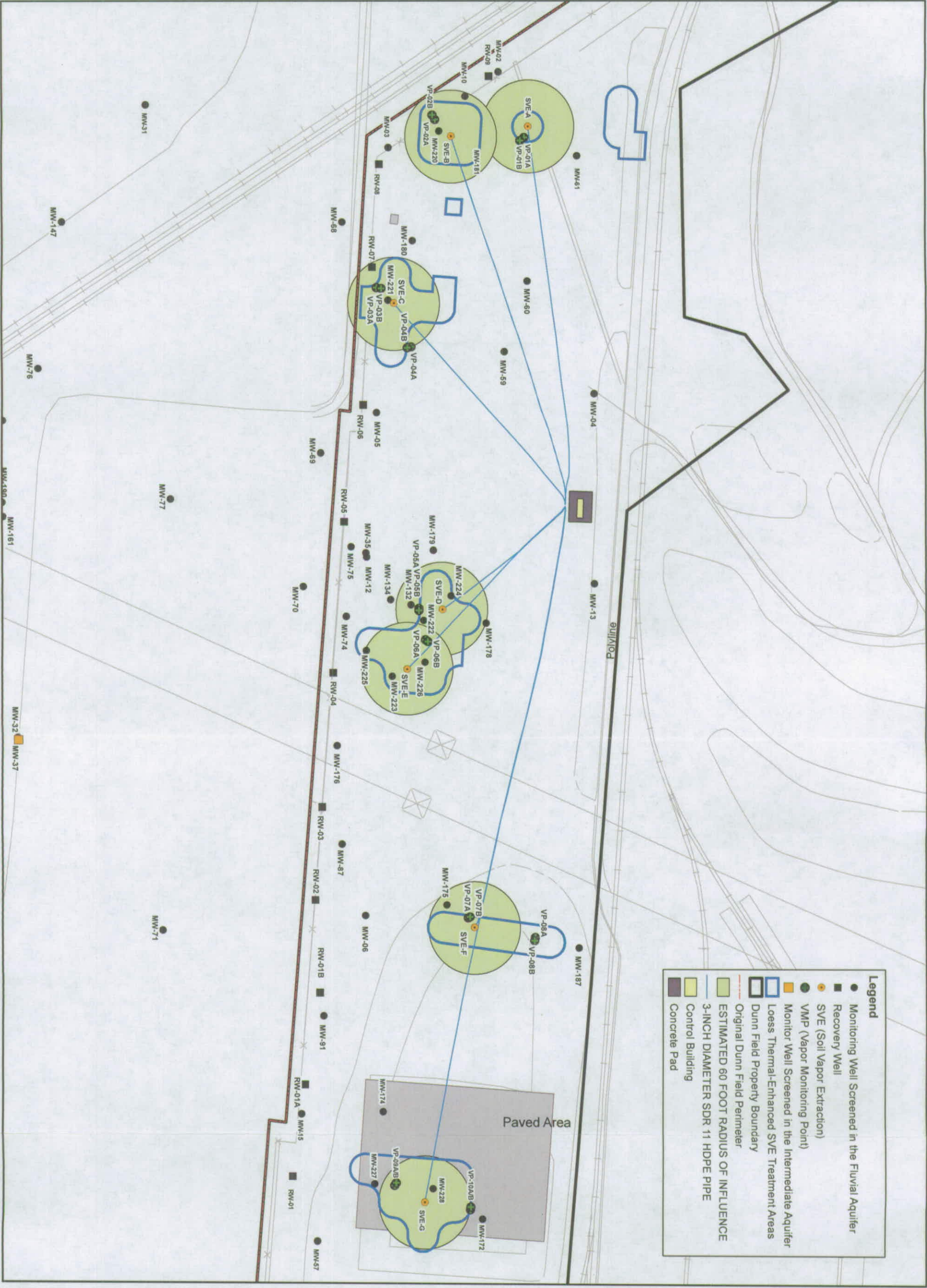


Figure 9

FLUVIAL SVE SYSTEM

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



0 50 100 150 200 Feet

Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet

Installation Location
Memphis, Tennessee

Date: September 2009
Edition: Rev 1

HDR | |

BASELINE FLUVIAL SOIL RG EXCEEDANCES

Installation Location
Memphis, Tennessee



Figure 11
PID MEASUREMENTS AT SVE WELLS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

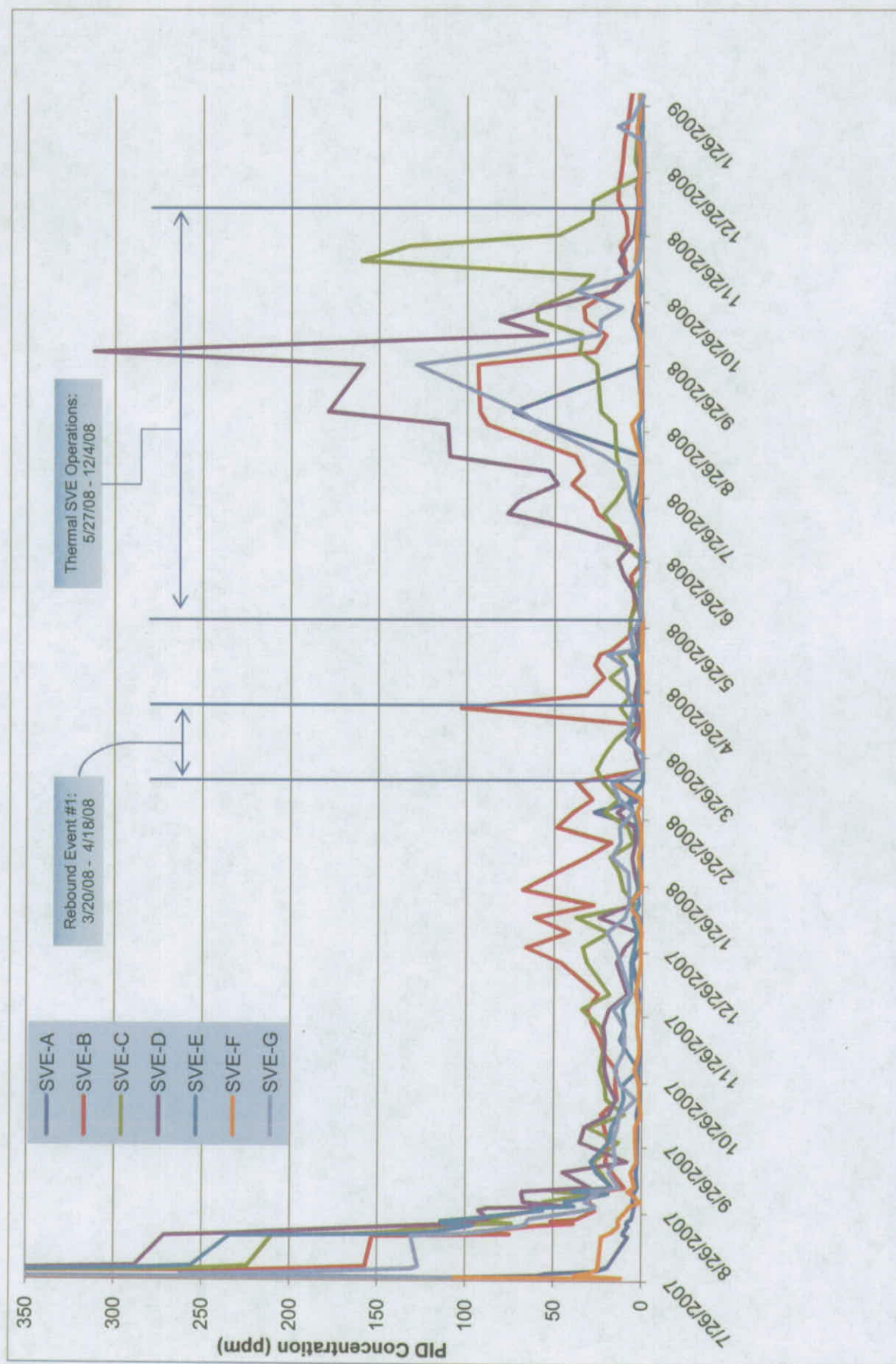


Figure 14
 FLUVIAL SVE INFLUENT CONCENTRATIONS
 SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
 Dunn Field - Defense Depot Memphis, Tennessee

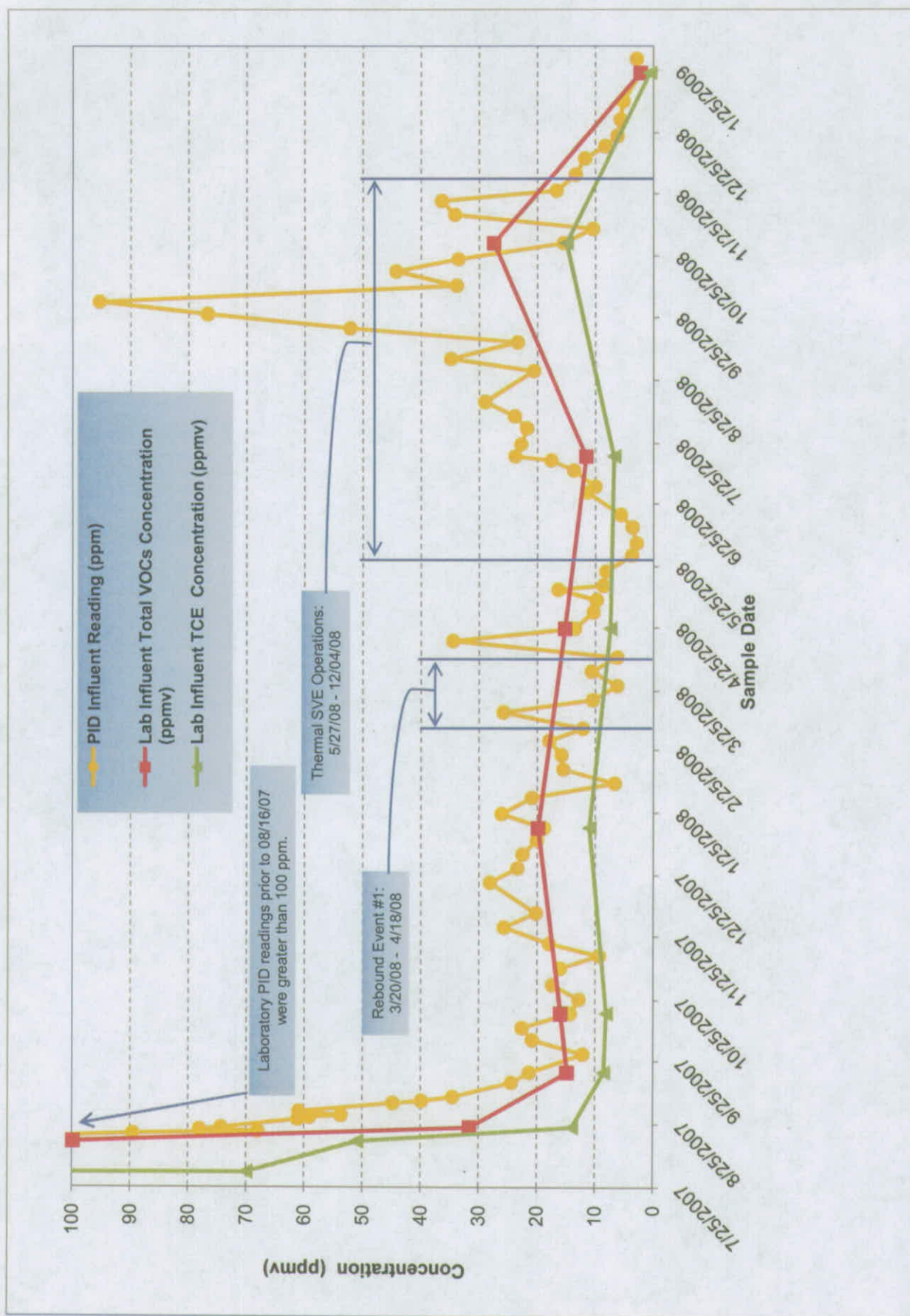




Figure 16

**SITE PREPARATION
ACTIVITIES,
LOESS GROUNDWATER RA**

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Removed Rail
- New Gravel Rd
- New Paved Rd
- Original Dunn Field Perimeter
- New Fence

Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet

0 120 240 360 480

Feet



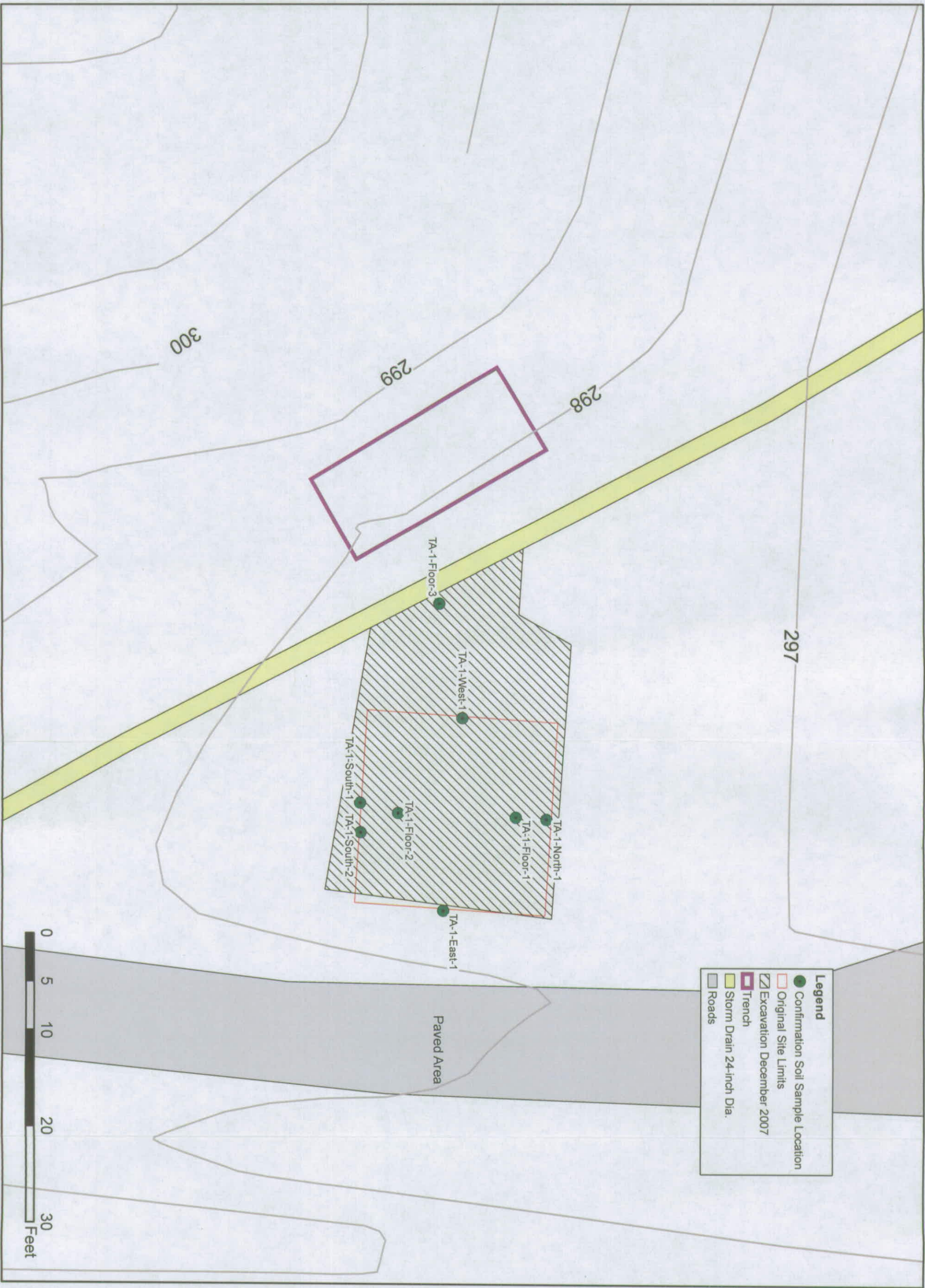


Figure 17

TA-1F INITIAL EXCAVATION

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet

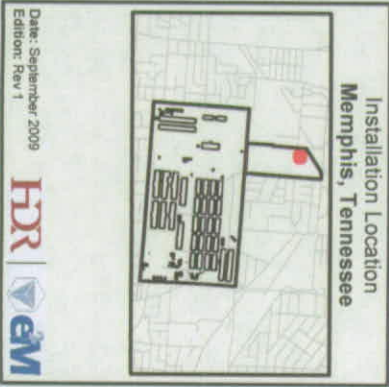




Figure 18

TA-3 GEOPHYSICAL SURVEY
AND TEST PIT LOCATIONS

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

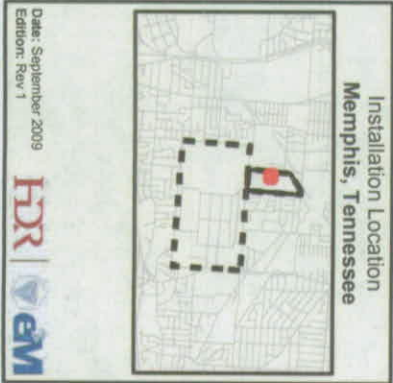
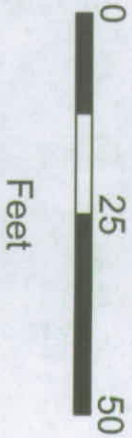
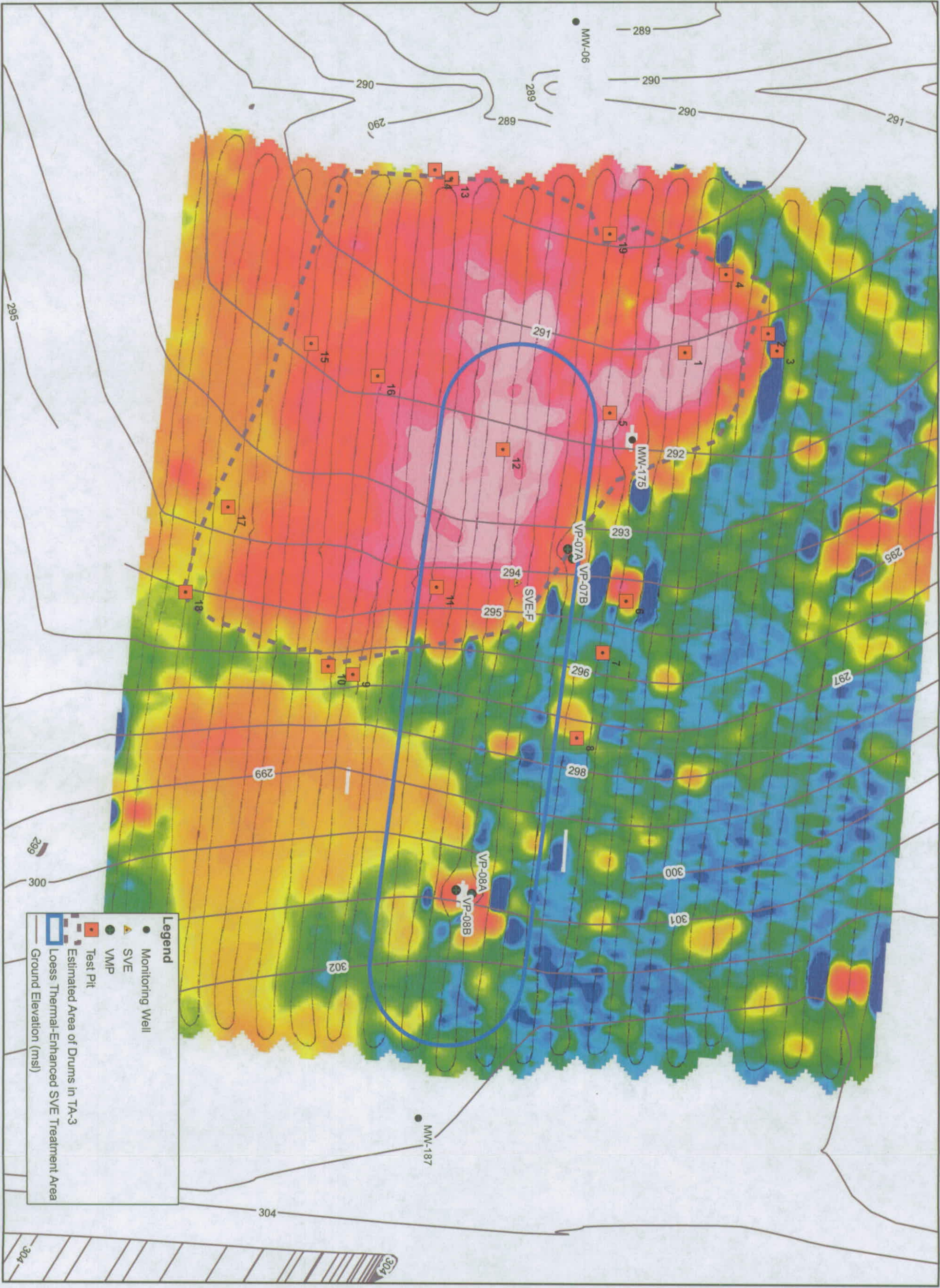




Figure 19

TA-3 INITIAL EXCAVATION

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

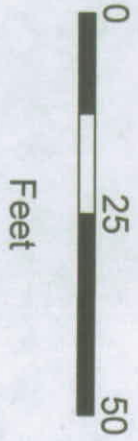
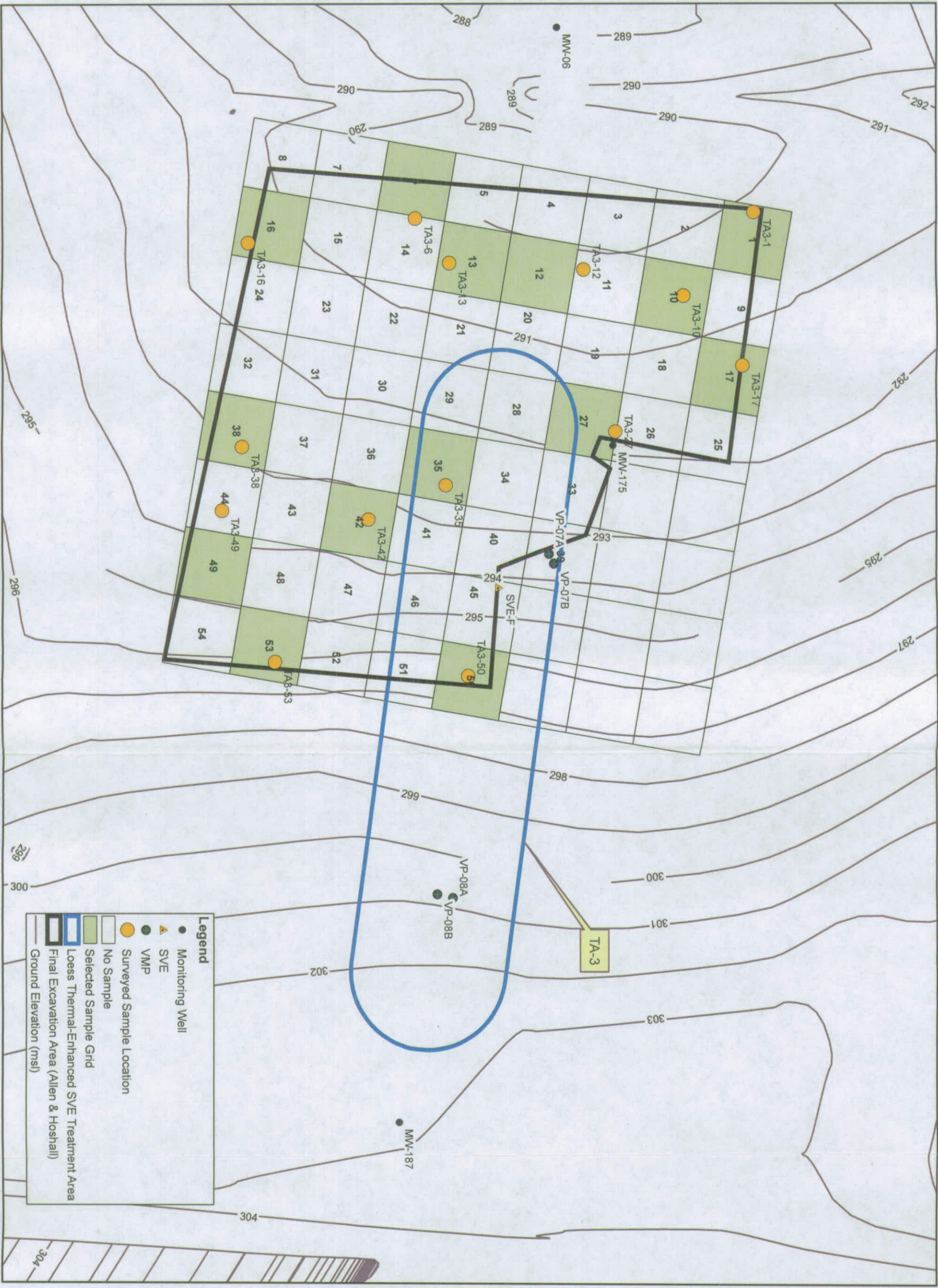


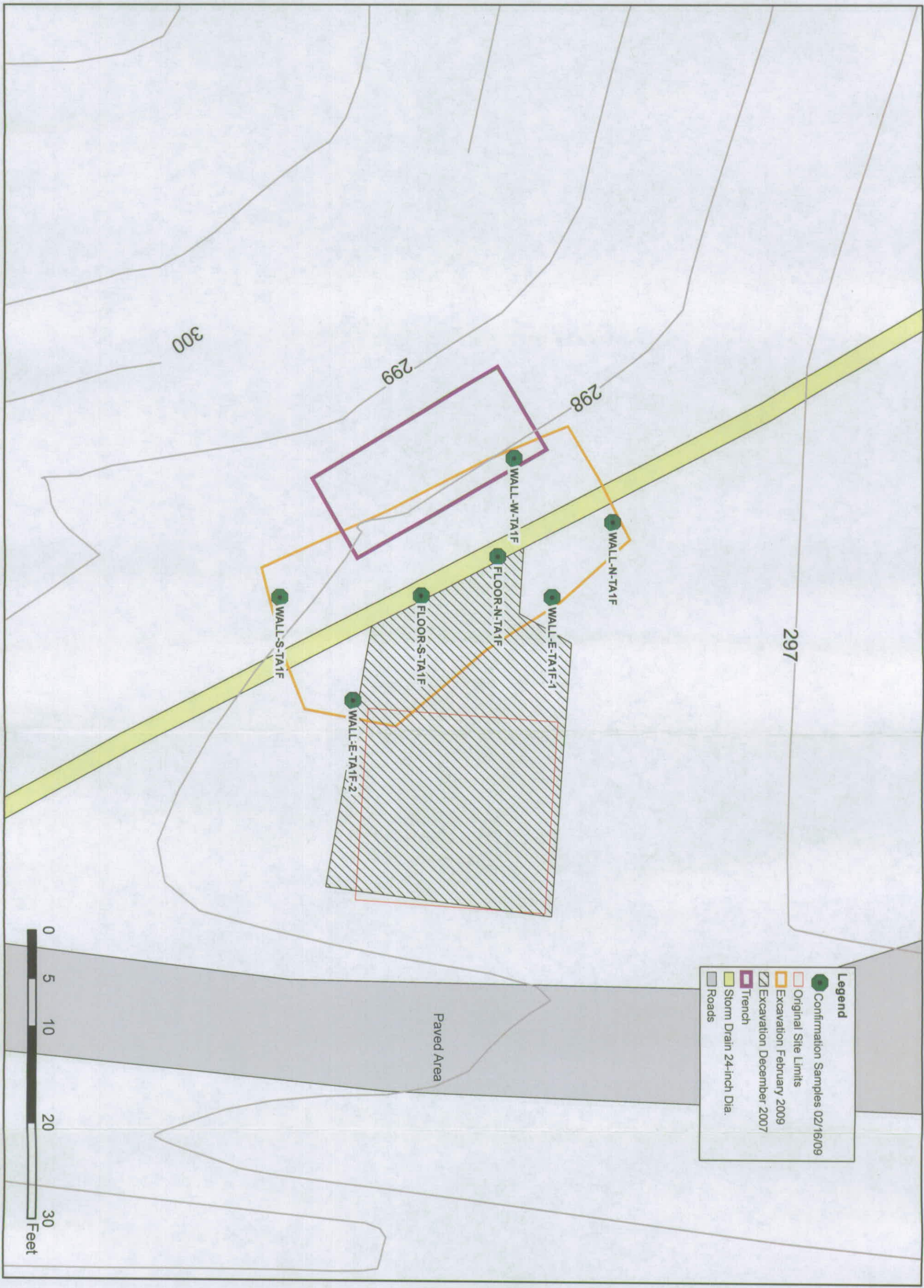


Figure 20

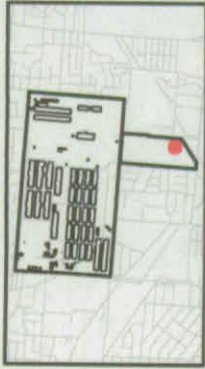
TA-1F FINAL EXCAVATION

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet



Installation Location
Memphis, Tennessee

Date: September 2009
Edition: Rev 1



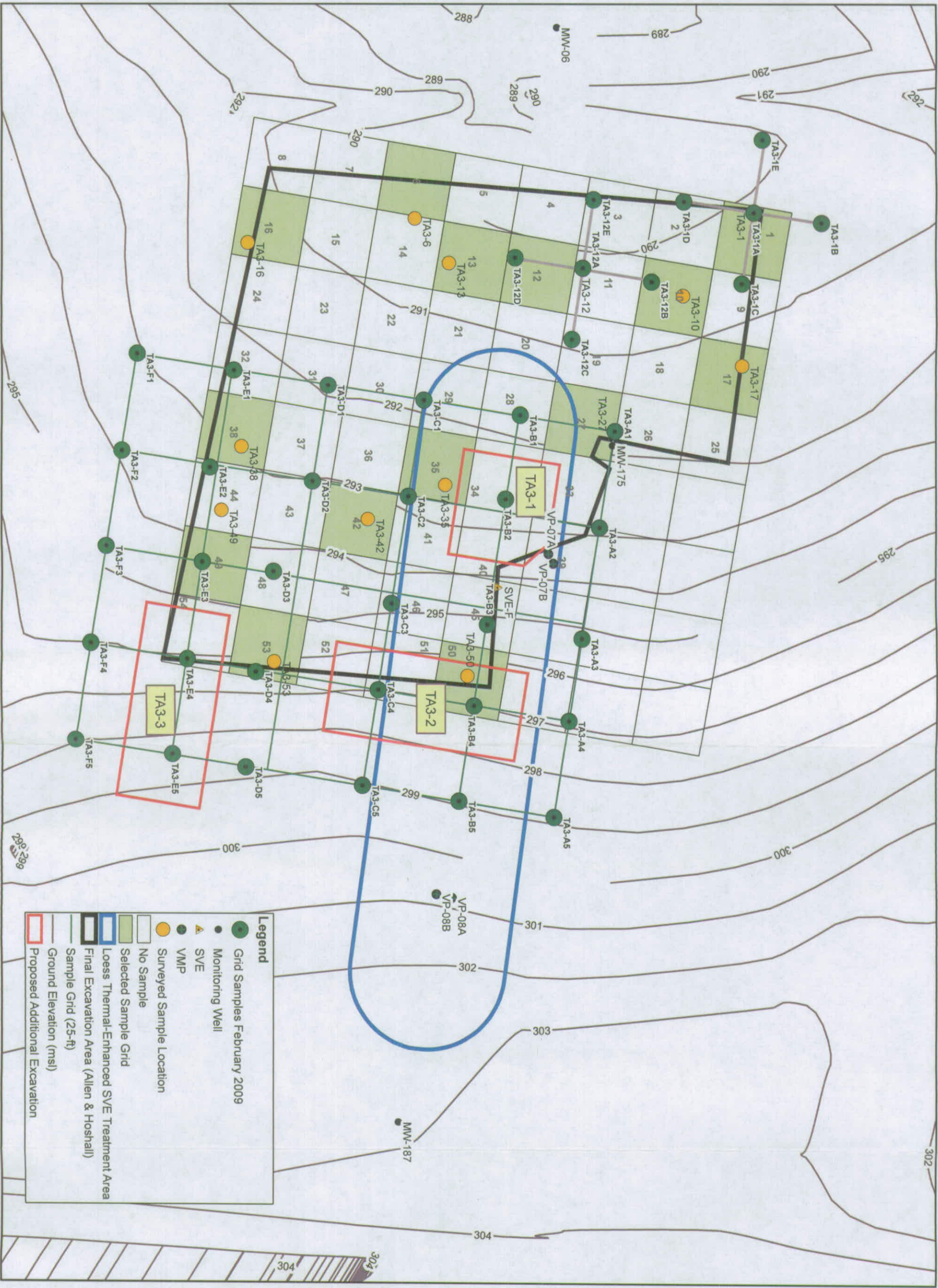


Figure 21

TA-3 GRID
SAMPLES AND FINAL
EXCAVATION AREAS

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



0 25 50
Feet



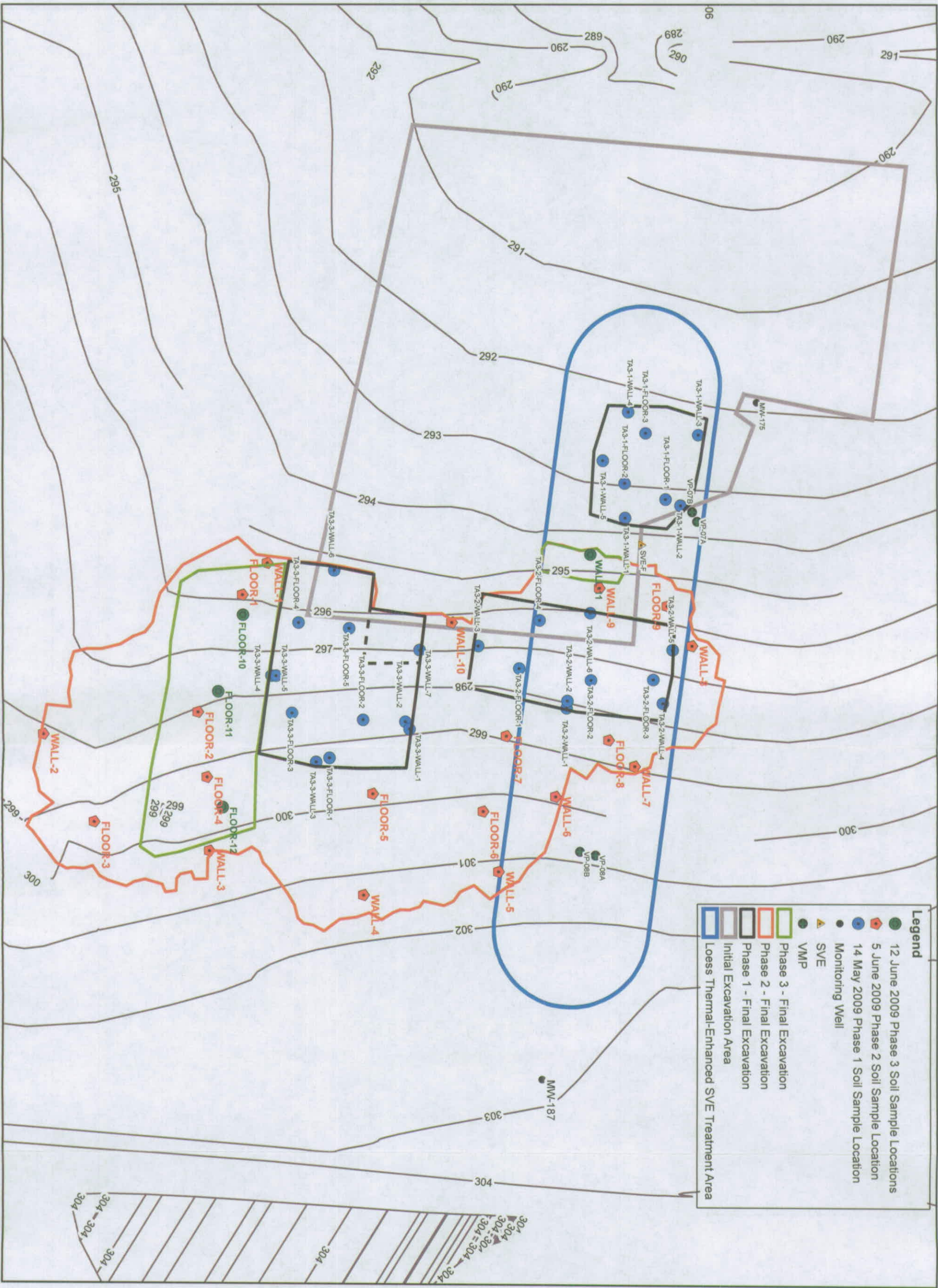


Figure 22

TA-3 FINAL EXCAVATION

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

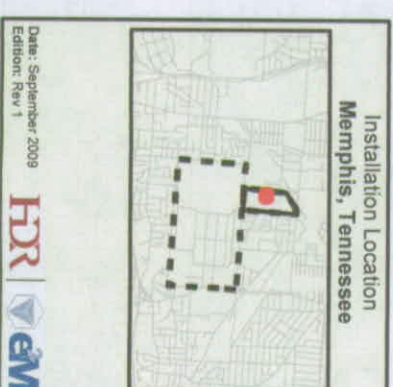
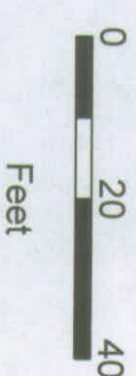





Figure 23
THERMAL SVE
SYSTEM LAYOUT

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Installation Location
Memphis, Tennessee



Date: September 2009
Edition: Rev 1

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Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet

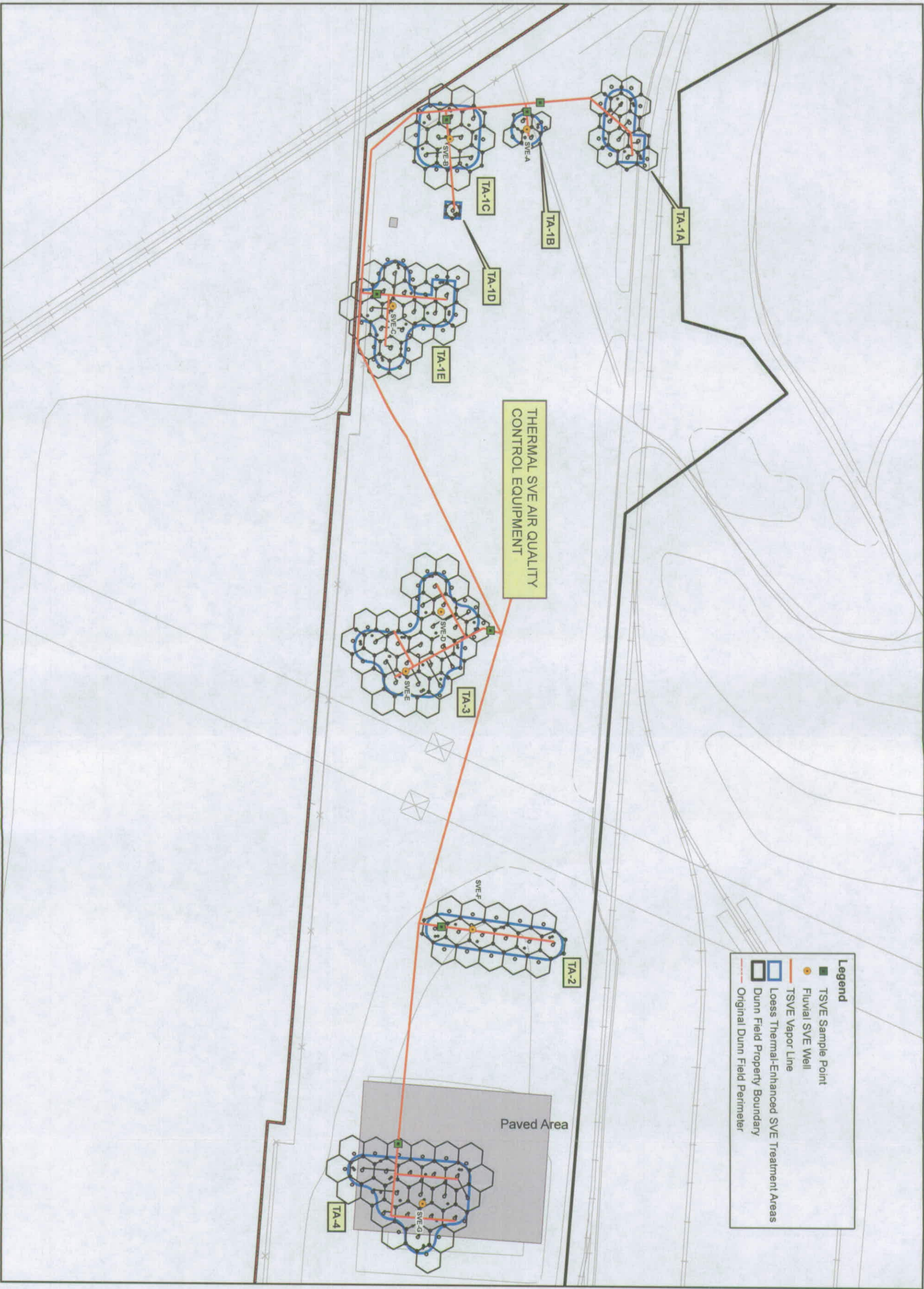


Figure 24
THERMAL SVE
AIR QUALITY CONTROL
SYSTEM
WITH SAMPLE
LOCATIONS

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

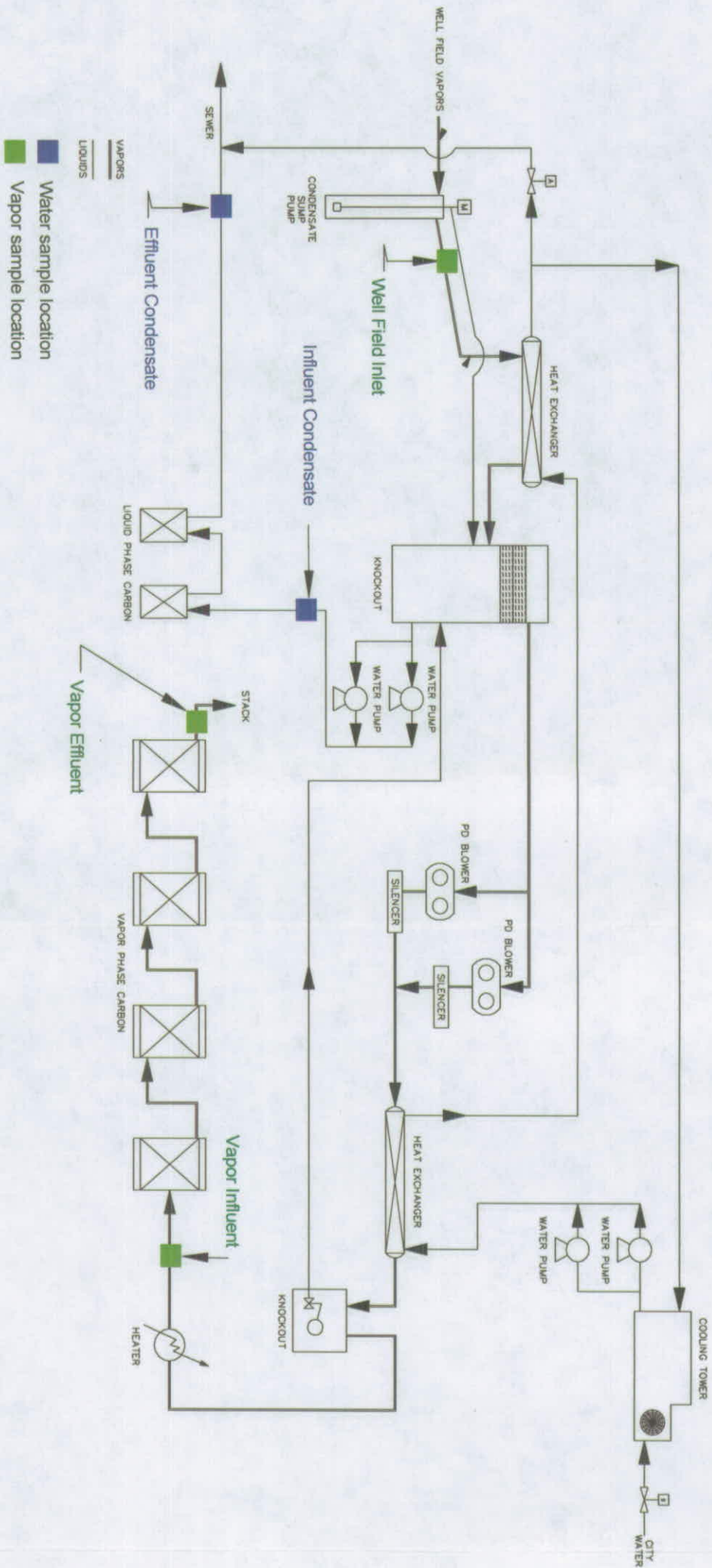


Figure 26
PID READINGS IN THERMAL SVE TREATMENT AREAS
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

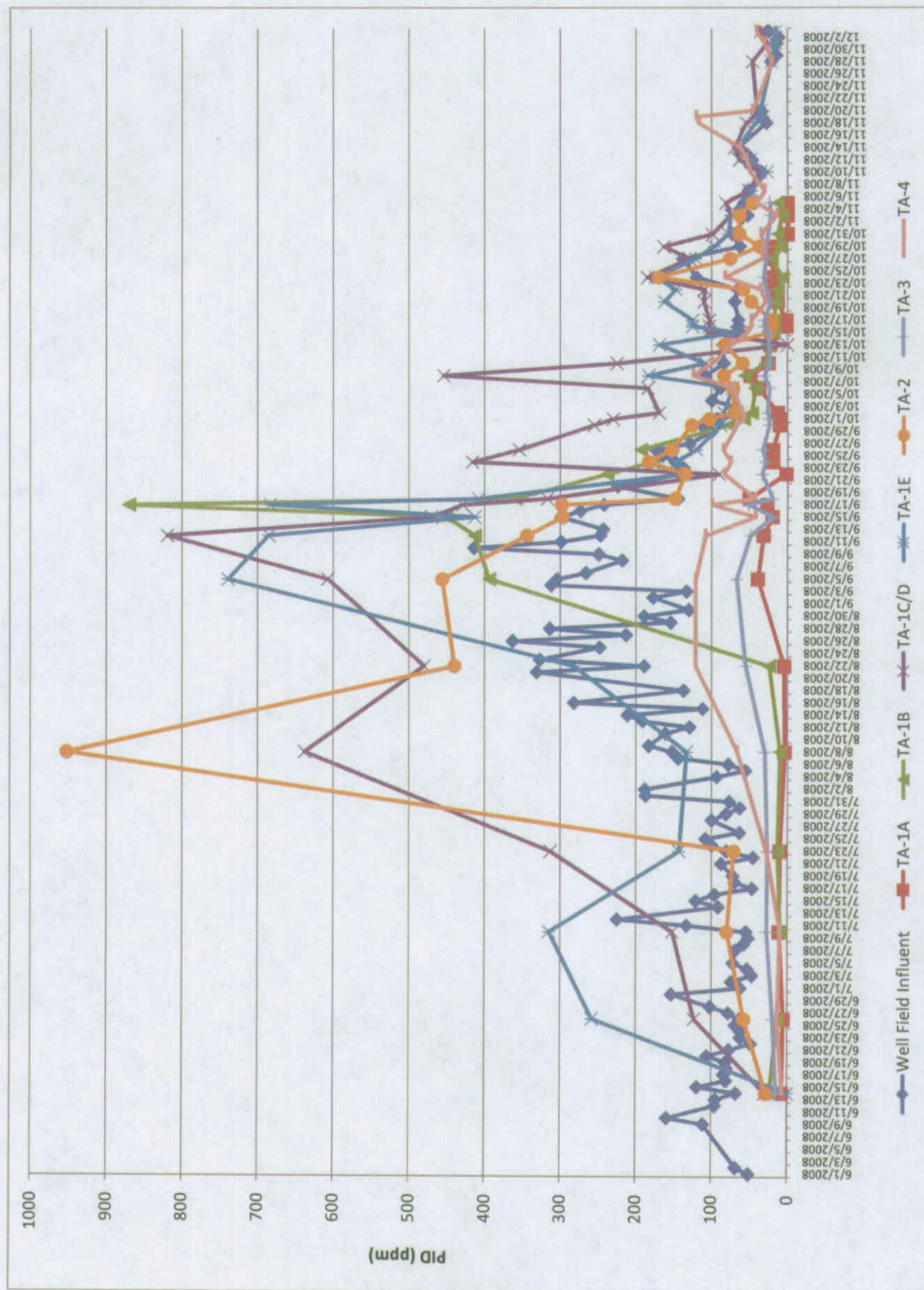


Figure 27
THERMAL SVE SYSTEM PID READINGS AND ESTIMATED MASS REMOVAL
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

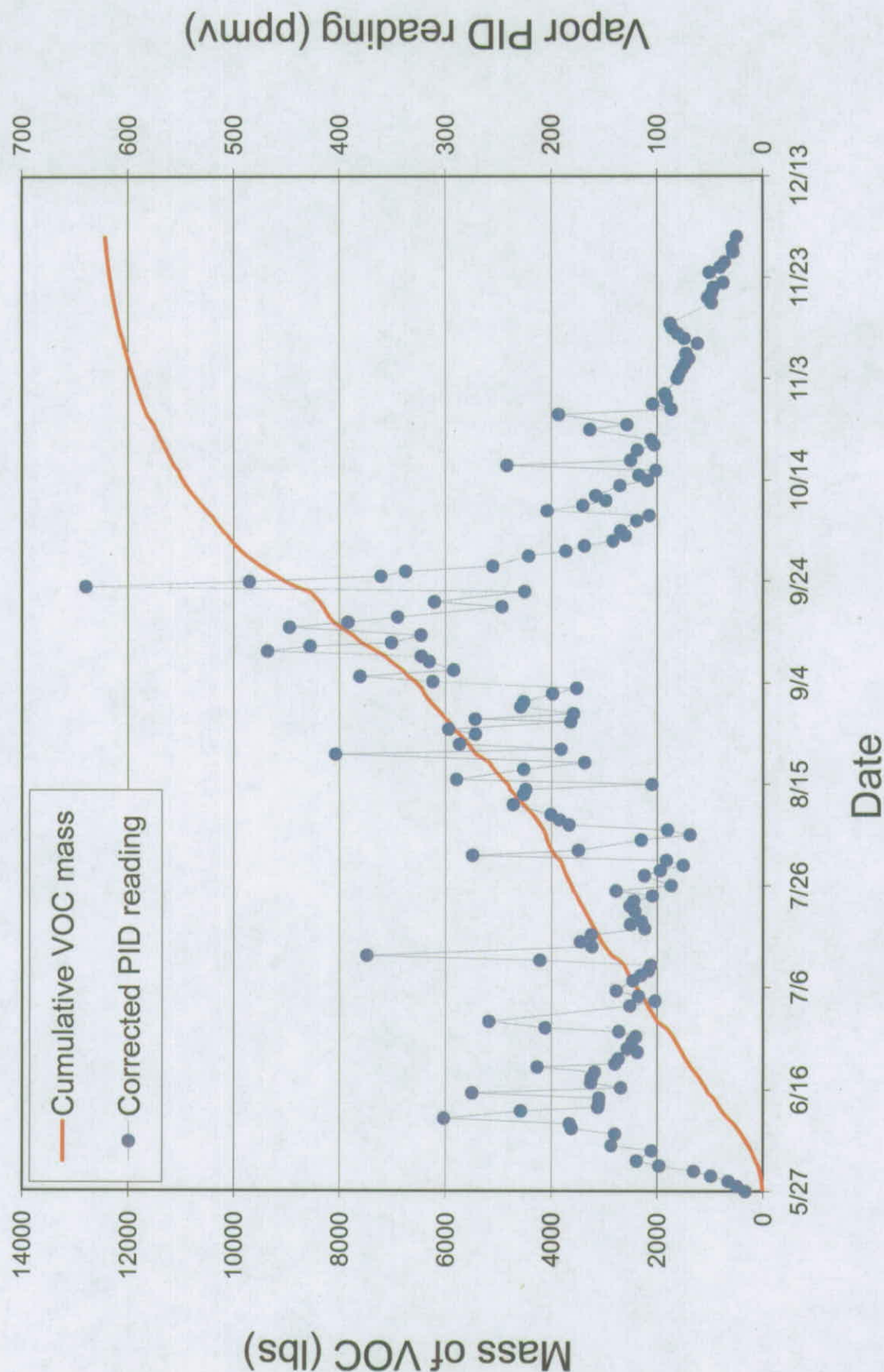




Figure 28

**THERMAL SVE
CONFIRMATION SAMPLE
LOCATIONS**

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT



Projection: NAD 1927 StatePlane Tennessee
Datum : WGS 84
Units: Feet

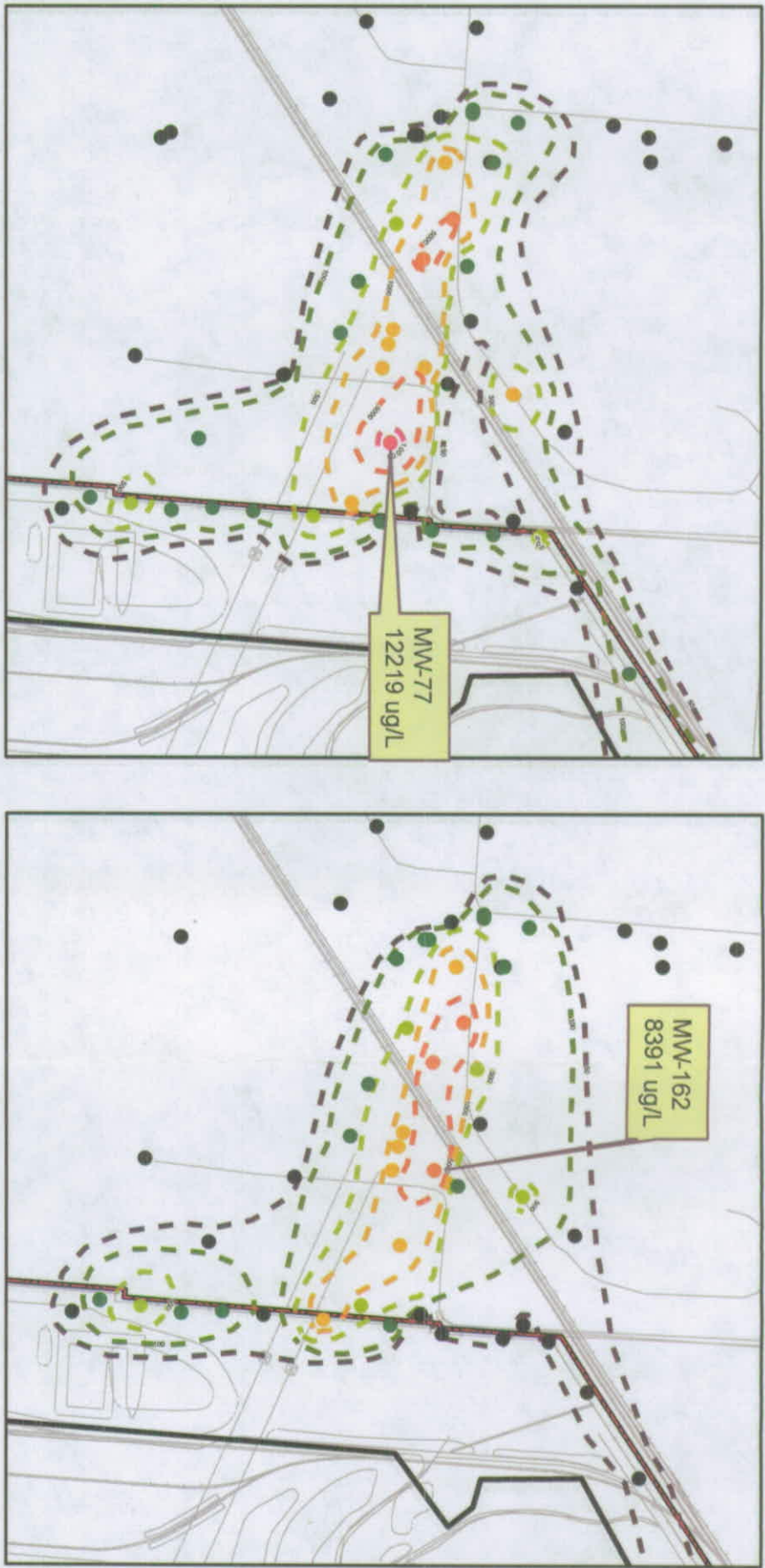


Figure 29

TOTAL CVOC
PLUME TIME TREND

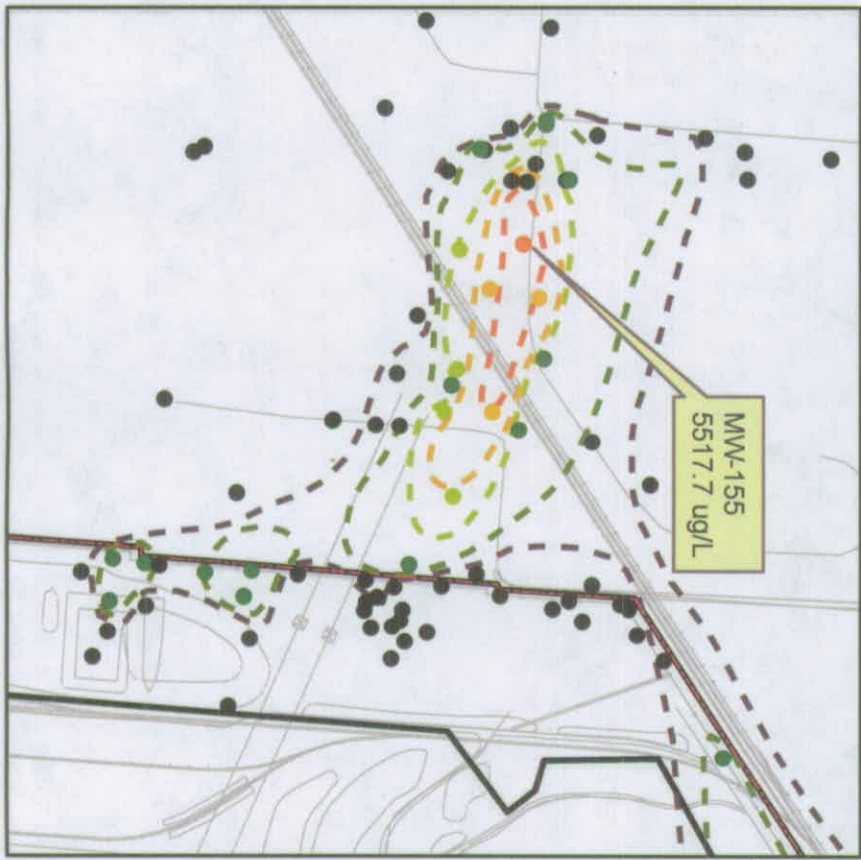
SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

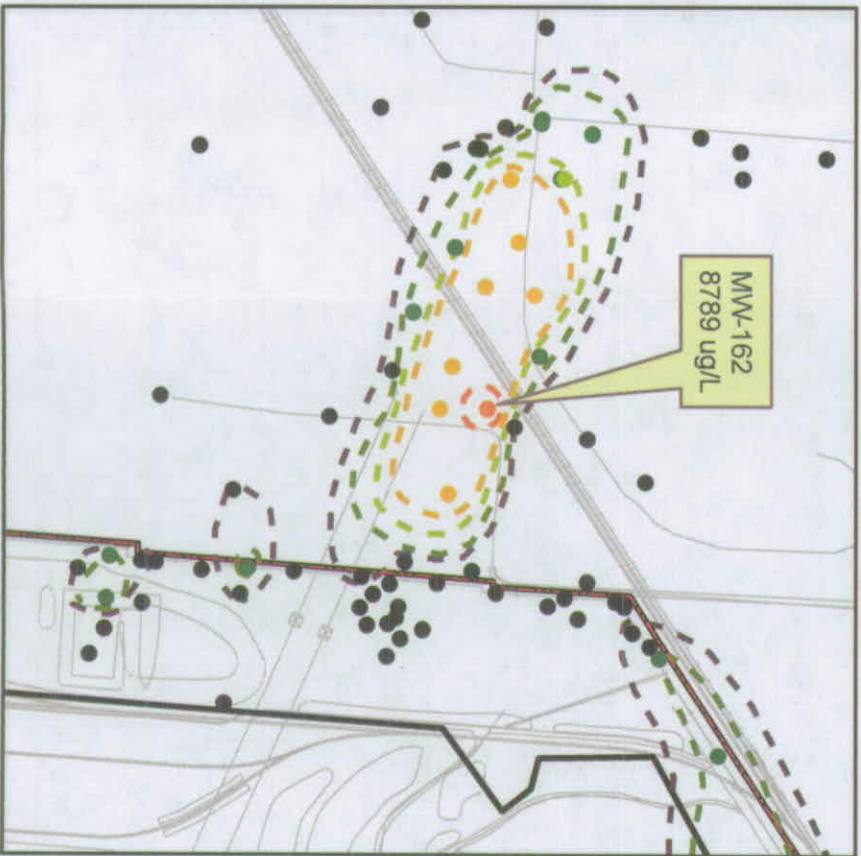


APRIL 2007

OCTOBER 2007

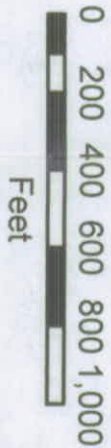


APRIL 2008



OCTOBER 2008

- Notes:
1. Highest concentration at well pairs used for contour.
 2. Total CVOCs include: CT, CF, DCA, DCE, cDCE, tDCE, TCA, TCE, PCE, PCA and VC.
 3. Highest Total CVOC labeled for each event.



Date: September 2009
Edition: Rev 1

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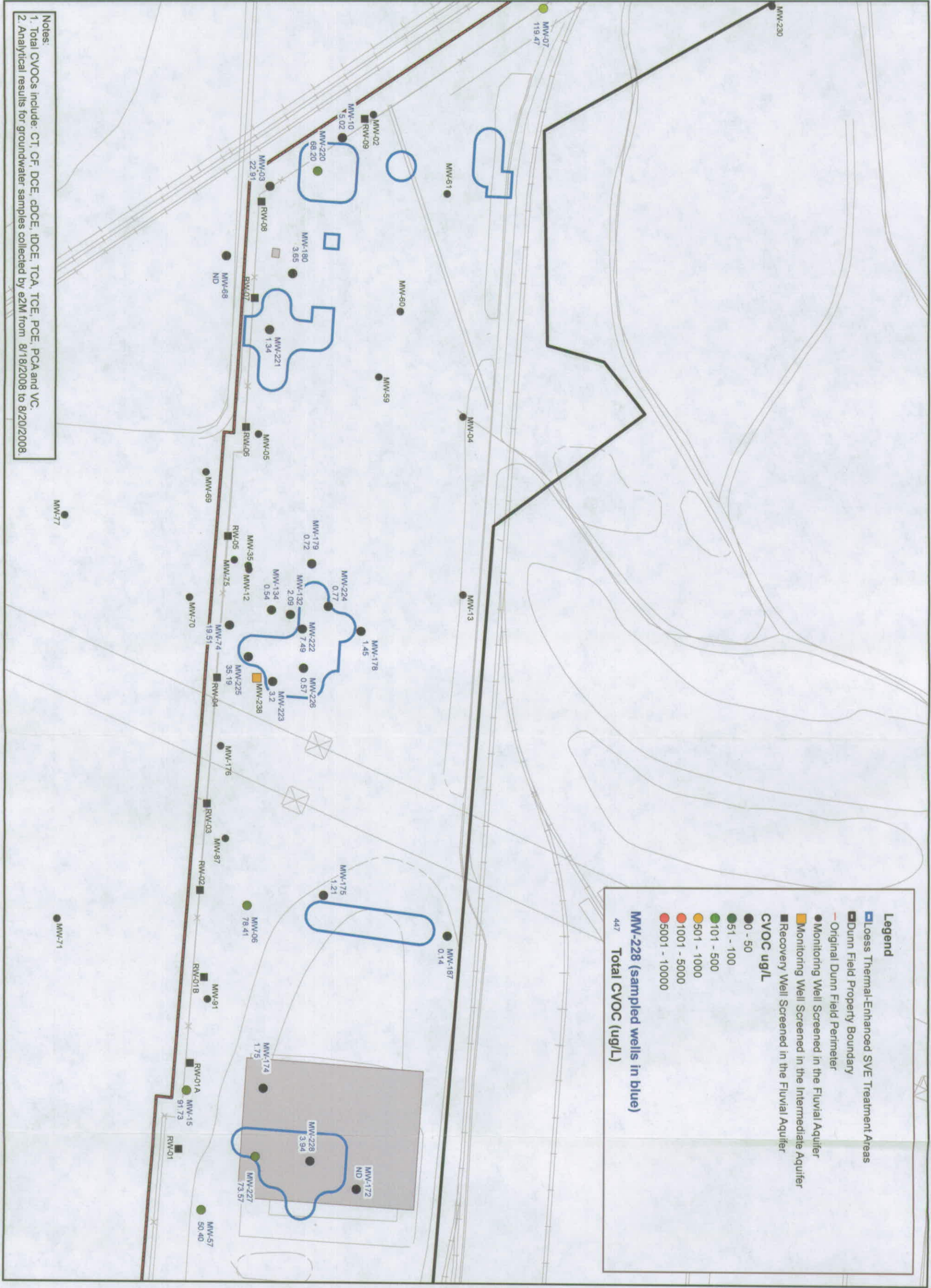


Figure 30

INTERIM MONITORING
WELL LOCATIONS

SOURCE AREAS INTERIM
REMEDIAL ACTION
COMPLETION REPORT

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE



APPENDIX A
SOIL BORING LOGS



FIELD BOREHOLE LOG

BOREHOLE NO.: MW-220

TOTAL DEPTH: 86 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE
 PROJECT NO.: 3202-031
 SITE LOCATION: DF
 PROJECT MANAGER: T. Holmes
 FIELD STAFF: J. Anstaett
 BOREHOLE STARTED: 5/3/07 12:05
 BOREHOLE FINISHED: 5/3/07 15:30

DRILLING INFORMATION

DRILLING CO.: Prosonic
 DRILLER: J. Asua
 DRILLING METHOD/RIG: Sonic
 BOREHOLE DIAMETER: 6-in.
 GROUND SURFACE ELEVATION: 290.31 (ft, msl)
 WATER DEPTH/ DATE: 67.96 -ft. toc - 5/10/07
 BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 2.98 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots		
	CH	Silty clay - gray 2.5Y (5/1), medium plasticity, soft, moist. Odor started at 6 ft bgs.		
10				Grouted Annulus
	CL	Silty clay - brown 10YR (5/3), with trace sand, medium plasticity, medium grained sand, hard, moist. Odor		
20				
	SW	Gravely sand - red 10R (4/6), with clay, fine to coarse grained sand, sub-rounded sub-angular to rounded gravel, well graded, moist.		
30				

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Checked By: KMS

PAGE: 1 of 3



FIELD BOREHOLE LOG

BOREHOLE NO.: MW-220

TOTAL DEPTH: 86 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
40		SP Silty sand - red 2.5YR (4/8), with clay, fine grained sand with trace medium to coarse grained sand, poorly graded, moist.		
50		MH Sandy silt - very pale brown 10YR (8/3), fine to coarse grained sand, possible silt stone, dry.		
60		SP Silty sand - reddish yellow 7.5YR (6/8), fine grained sand with few medium to coarse grained sand, poorly graded, dry.		

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1000

FIELD BOREHOLE LOG

BOREHOLE NO.: MW-220

TOTAL DEPTH: 86 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
				Sand Pack
70		SP Sand - reddish yellow 7.5YR (6/8), fine grained sand with few medium to coarse grained sand, poorly graded, wet.		
		CH Clay - light gray 2.5Y (7/2), medium plasticity, soft, moist.		
		SP Sand - light olive brown 2.5Y (5/6), fine grained sand with few medium to coarse grained sand, poorly graded, wet.		
		SW Gravely sand - reddish yellow 7.5YR (6/8), fine to grained sand, sub-rounded to rounded gravel, well graded, wet.		
80		CL Silty clay - dark gray 2.5Y (4/1), medium plasticity, hard, moist.		
		End of Log		
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-221

TOTAL DEPTH: 86 ft.

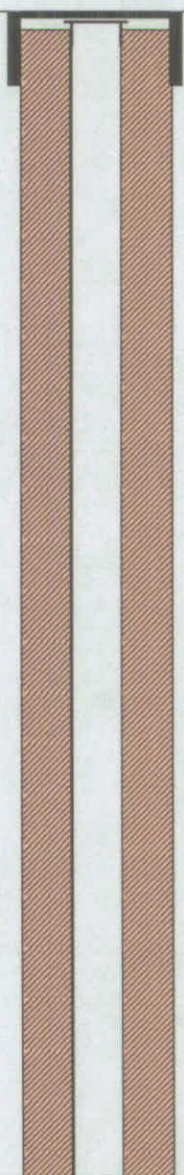
PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE
 PROJECT NO.: 3202-031
 SITE LOCATION: DF
 PROJECT MANAGER: T. Holmes
 FIELD STAFF: J. Anstaett
 BOREHOLE STARTED: 5/2/07 15:00
 BOREHOLE FINISHED: 5/2/07 17:00

DRILLING INFORMATION

DRILLING CO.: Prosonic
 DRILLER: J. Asua
 DRILLING METHOD/RIG: Sonic
 BOREHOLE DIAMETER: 6-in.
 GROUND SURFACE ELEVATION: 298.37 (ft, msl)
 WATER DEPTH/ DATE: 79.53 -ft. toc -5/9/07
 BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 3.15 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Topsoil grass and root zone.		Grouted Annulus
	CL	Silty clay - dark yellowish brown 10YR (3/4), medium plasticity, soft, moist.		
10				
	CL	Silty clay - yellowish brown 10YR (5/6), low plasticity, hard, moist.		
20				
	CH	Silty clay - strong brown 7.5YR (4/6), medium plasticity, soft, moist.		
	CL	Sandy clay - dark red 10R (3/6), medium plasticity, soft, gray mottling, fine grained sand, moist.		
30				

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Checked By: KMS

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-221

TOTAL DEPTH: 86 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Clayey sand - red 10R (4/6), fine grained sand, poorly graded, moist.		
		SP Silty sand - red 10R (4/6), fine grained with trace medium to coarse grained sand, poorly graded, moist.		
40				
		SP Silty sand - red 10R (4/6), fine grained sand trace medium to coarse, poorly graded, moist.		
50				
		SP Silty sand - pale yellow 2.5Y (8/4), fine grained sand poorly graded, dry.		
		SW Gravelly sand - olive yellow 2.5Y (6/6), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, moist.		
60				

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PAGE: 2 of 3



FIELD BOREHOLE LOG

BOREHOLE NO.: MW-221

TOTAL DEPTH: 86 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
	SP	Silty sand - yellow 2.5Y (7/8), fine grained sand with trace medium to coarse grained, poorly graded, dry.		
	SP	Silty sand - yellow 10YR (7/8), fine to coarse grained sand, poorly graded, dry.		Sand Pack
70				Screened Interval
	SW	Sand - yellowish red 5YR (5/8), fine to medium grained sand with trace coarse grained sand, well graded, wet.		
80				
	CL	Silty clay - dark gray 2.5Y (4/1), medium plasticity, hard moist.		
		End of Log		
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-222

TOTAL DEPTH: 96 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 5/2/07 08:25
BOREHOLE FINISHED: 5/2/07 11:00

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 301.06 (ft, msl)
WATER DEPTH/ DATE: 80.05 -ft. toc -5/9/07
BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 2.76 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Sand		
		CL Silty clay - light yellowish brown 10YR (6/4), medium plasticity, soft, moist.		
10				
		CL Silty clay - light yellowish brown 10YR (6/4), medium plasticity, soft, moist.		
20				
		CL Sandy clay - strong brown 7.5YR (4/6), medium plasticity, soft, fine grained sand, moist.		
		CL Sandy clay - strong brown 7.5YR (4/6), medium plasticity, soft, fine grained sand, moist.		
30				
				Grouted Annulus

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-222

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		CL Sandy clay - red 2.5YR (4/6), with gray mottling, medium plasticity, soft fine grained sand, moist.		
		SP Clayey sand - red 2.5YR (4/8), fine grained sand, poorly graded, moist.		
		SP Clayey sand - red 2.5YR (4/6), fine grained sand, poorly graded, moist. Odor		
40		SP Sand - yellow 10YR (7/8), with few gravel, fine grained, sub-rounded gravel, poorly graded, moist. Odor		
		SP Silty sand - yellow 10YR (8/6), with some gravel, fine grained sand, sub-rounded to rounded gravel, poorly graded, dry. Odor		
50		SP Silty sand - yellow 10YR (8/6), with some gravel, fine grained sand, sub-rounded to rounded gravel, poorly graded, dry. Odor		
		SW Gravelly sand - yellowish brown 10YR (7/8), fine to coarse grained sand, sub-angular to sub-rounded gravel, well graded, dry. Odor		
		SP Sand - yellow 10YR (7/8), with few gravel, fine grained sand, sub-rounded to rounded gravel, poorly graded, moist. Odor		
60		SP Sand - yellow 10YR (7/8), with few gravel, fine grained sand, sub-rounded to rounded gravel, poorly graded, moist. Odor		

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-222

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
				Sand Pack
70		SP Silty sand - reddish yellow 5YR (6/8), fine grained sand, poorly graded, moist. Odor		Screened Interval
		SW Gravelly sand - strong brown 7.5YR (5/6), fine grained sand, sub-rounded to rounded gravel, well graded, moist. Odor		
80		CH Clay - pinkish gray 7.5YR (7/2), medium plasticity, soft, moist.		
		SW Sand - reddish yellow 7.5YR (6/8), with few gravel, fine to coarse grained sand, sub-rounded gravel, well graded, wet.		
		CL Silty clay - dark gray 2.5Y (4/1), medium plasticity, hard, moist.		
90				

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TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		End of Log		
100				
110				
120				

PAGE: 4 of 4



FIELD BOREHOLE LOG

BOREHOLE NO.: MW-223

TOTAL DEPTH: 96 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE
 PROJECT NO.: 3202-031
 SITE LOCATION: DF
 PROJECT MANAGER: T. Holmes
 FIELD STAFF: J. Anstaett
 BOREHOLE STARTED: 4/30/07 12:20
 BOREHOLE FINISHED: 5/1/07 07:45

DRILLING INFORMATION

DRILLING CO.: Prosonic
 DRILLER: J. Asua
 DRILLING METHOD/RIG: Sonic
 BOREHOLE DIAMETER: 6-in.
 GROUND SURFACE ELEVATION: 300.41 (ft, msl)
 WATER DEPTH/ DATE: 78.90 -ft. toc - 5/8/07
 BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 2.59 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
		CL Silty clay - dark yellowish brown 10YR (3/4), medium plasticity, soft, moist.		
10				Grouted Annulus
		CL Silty clay - strong brown 7.5YR (4/6), medium plasticity, soft, moist.		
20				
		CL Sandy clay - red 2.5YR (4/6), low plasticity, hard, moist.		
		CL Sandy clay - red 2.5YR (4/8), gray mottling, fine grained sand, low plasticity, hard, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-223

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Clayey sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, dry.		
40				
		SP Silty sand - reddish yellow 5YR (6/8), fine grained sand, poorly graded, dry.		
50				
		SP Sand - reddish brown 5YR (4/4), fine to coarse grained sand, poorly graded, moist.		
		SW Gravely sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, dry.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-223

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Silty sand - yellow 10YR (7/8), fine grained sand with few coarse grained sand, poorly graded, dry.		Bentonite Plug
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, dry.		Sand Pack
70				Screened Interval
		SP Silty sand - reddish yellow 7.5YR (7/6), fine grained sand with trace medium to coarse grained sand, poorly graded, wet.		
80		CH Clay - weak red 10R (5/4), medium plasticity, soft, moist.		
		SW Gravely sand - reddish yellow 7.5YR (6/6), fine to coarse grained sand, sub-rounded to rounded, well graded, wet.		
		CH Silty clay - dark gray 2.5Y (4/1), medium plasticity, hard, moist.		
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-223

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		End of Log		
100				
110				
120				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-224

TOTAL DEPTH: 96 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 4/25/07 07:20

BOREHOLE FINISHED: 4/25/07 10:45

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

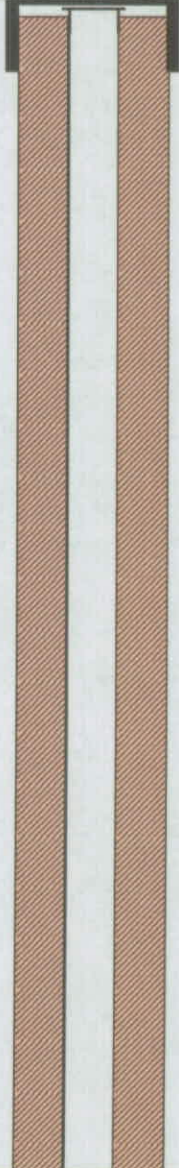
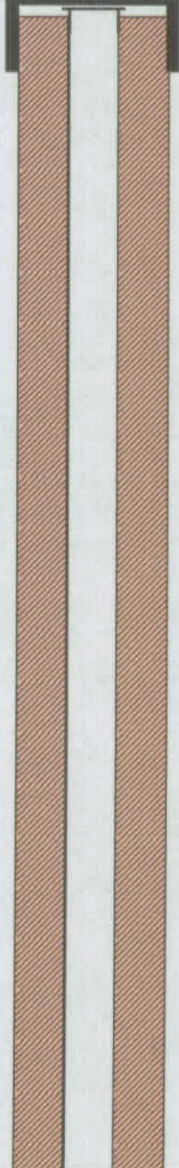
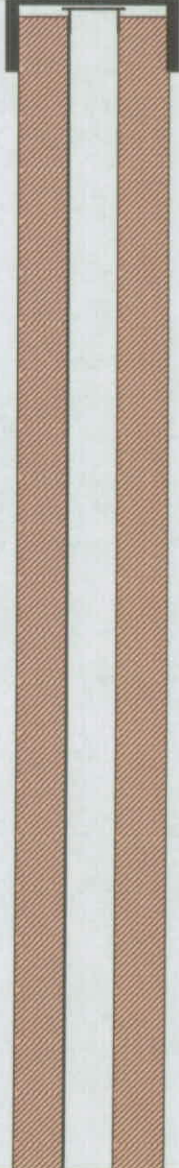
BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 301.18 (ft, msl)

WATER DEPTH/ DATE: 80.23 -ft. toc - 5/9/07

BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 2.95 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CH	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				
	CH	Silty clay - yellowish red 5YR (4/6), medium plasticity, soft, moist.		
	CH	Silty clay - yellowish red 5YR (4/6), medium plasticity, soft, moist.		Grouted Annulus
20				
	CH	Silty clay - yellowish red 5YR (4/6), medium plasticity, soft, moist.		
30				Grouted Annulus

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-224

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		CL Sandy clay - dark red 10R (3/6), with gray mottling, low plasticity, soft, fine grained sand, moist.		
		CL Sandy clay - dark red 10R (3/6), with gray mottling, low plasticity, soft, fine grained sand, moist.		
40		SP Clayey sand - 2.5YR (4/8), with few gravel, fine grained sand, sub-rounded gravel, poorly graded, moist.		
		SP Silty sand - yellow 10YR (7/8), with few gravel, fine grained sand, sub-rounded gravel, poorly graded, moist.		
		SP Silty sand - yellow 10YR (7/6), with trace gravel, fine grained sand, rounded gravel, poorly graded, dry.		
50		SP Clayey sand - red 2.5YR (4/8), with some silt, fine grained sand, poorly graded, moist.		
		SW Silty sand - strong brown 7.5YR (5/8), fine to coarse grained sand, well graded, moist.		
		SW Silty sand - yellowish red 5YR (5/8), some gravel, fine to coarse grained sand, rounded to sub-rounded gravel, well graded, dry.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-224

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
		SP Silty sand - reddish yellow 7.5YR (6/8), fine grained sand, poorly graded, dry.		
		SP Silty sand - yellow 10YR (7/8), fine grained sand, poorly graded, dry.		Sand Pack
70				Screened Interval
		SW Gravelly sand - reddish yellow 7.5YR (7/8), fine to coarse grained sand, rounded to sub-rounded gravel, well graded, wet.		
80		SW Sand - yellowish red 5YR (4/6), fine grained sand, with some medium to coarse grained sand, poorly graded, wet.		
		CL Silty clay - dark gray 2.5Y (4/1), medium plasticity hard, moist.		
90				

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1000281

**FIELD BOREHOLE LOG**

BOREHOLE NO.: MW-224

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
100		End of Log		
110				
120				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-225
TOTAL DEPTH: 96 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 4/25/07 14:32
BOREHOLE FINISHED: 4/30/07 09:00

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 301.06 (ft, msl)
WATER DEPTH/ DATE: 80.83 -ft. toc - 5/7/07
BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 3.19 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Gravel.		Grouted Annulus
		CL Silty clay - gray 2.5YR (5/1), medium plasticity, soft, moist.		
10				
		CL Silty clay - gray 2.5Y (5/1), medium plasticity, soft, moist.		
20		CL Silty clay - yellowish red 5YR (4/6), medium plasticity, soft, moist.		Grouted Annulus
		CL Sandy clay - 2.5YR (4/8), low plasticity, soft, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-225

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SC Clayey sand - red 5YR (4/8), fine grained sand, poorly graded, moist.		
		SW Sand - dark red 2.5YR (3/6), with some gravel, fine grained sand, sub-angular gravel, well graded, moist.		
40		SP Silty sand - reddish yellow 7.5YR (7/8), fine grained sand, poorly graded, dry.		
		SW Sand - dark red 2.5YR (3/6), with some gravel, fine grained sand, sub-angular gravel, well graded, dry.		
		SP Sand - yellowish red 5YR (5/8), with some gravel, fine grained sand, sub-angular gravel, poorly graded, dry.		
50		SW Gravely sand - yellow 10YR (7/8), fine grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
		SW Gravely sand - reddish yellow 7.5YR (7/6), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-225

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
				Sand Pack
70		SP Silty sand - reddish yellow 7.5YR (6/8), fine grained sand, poorly graded, dry.		Screened Interval
80		SP Silty sand - reddish yellow 7.5YR (6/8), fine grained sand, poorly graded, moist.		
		CH Clay - pinkish gray 7.5YR (7/1), medium plasticity, soft, moist.		
		SP Sand - yellowish red 5YR (5/8), with few gravel, fine to coarse grained sand, sub-angular gravel, poorly graded, wet.		
90		CH Silty clay - dark gray 5Y (4/1), medium plasticity, hard, moist.		

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-225

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
100		End of Log		
110				
120				

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**FIELD BOREHOLE LOG**

BOREHOLE NO.: MW-226

TOTAL DEPTH: 96 ft.

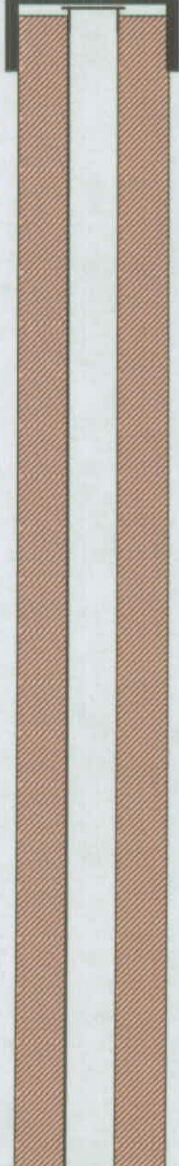
PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 5/1/07 11:25
BOREHOLE FINISHED: 5/1/07 14:00

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 300.56 (ft, msl)
WATER DEPTH/ DATE: 79.30 -ft. toc - 5/8/07
BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 2.63 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Topsoil grass and root zone.		Grouted Annulus
	CL	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				
	CH	Sandy clay - strong brown 7.5YR (5/6), high plasticity, soft, fine grained sand, moist.		
20				
	CL	Sandy clay - red 2.5YR (4/8), medium plasticity, soft, fine grained sand, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-226

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Clayey sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, dry.		
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand with few medium to coarse grained sand, poorly graded, dry.		
40		SW Gravely sand - yellow 10YR (7/8), fine to medium grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
		SP Silty sand - yellowish red 5YR (5/6), trace gravel, fine grained sand with trace coarse grained sand, sub-rounded gravel, poorly graded, dry.		
50		SP Silty sand - reddish yellow 5YR (7/6), fine grained sand, poorly graded, dry.		
		SW Gravely sand - strong brown 7.5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		
60				

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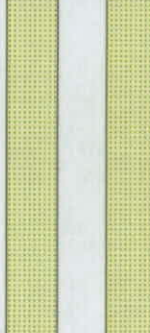


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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-226

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
				Sand Pack
70		SP Silty sand - reddish yellow 7.5YR (6/8), fine grained sand, poorly graded, dry.		
				Screened Interval
		SP Sand - strong brown 7.5YR (5/8), with few gravel, fine grained sand, sub-rounded gravel, poorly graded, wet.		
80		CH Clay - red 10R (4/6), high plasticity, soft, moist.		
		SP Sand - reddish yellow 7.5YR (6/6), with some gravel, fine to coarse grained sand, sub-rounded gravel, poorly graded, wet.		
		CH Clay - light gray 2.5Y (7/2), high plasticity, soft, moist.		
		CH Clay - light gray 2.5Y (7/2), high plasticity, soft, moist.		
90				

76.67 - ft. bgs.

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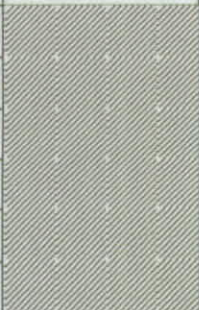

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-226

TOTAL DEPTH: 96 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		CL Clay - dark gray 5Y (4/1), medium plasticity, hard, moist.		
100		End of Log		
110				
120				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-227

TOTAL DEPTH: 86 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 4/22/07 13:30

BOREHOLE FINISHED: 4/23/07

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 296.64 (ft, msl)

WATER DEPTH/ DATE: 73.75 -ft. toc - 5/7/07

BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 3.06 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt and crushed stone.		
		CL Silty clay - dark yellowish brown 10YR (3/6), medium plasticity, moist.		
10				
		CL Silty clay - dark yellowish brown 10YR (3/6), medium plasticity, moist.		
20				
		CL Silty clay - strong brown 7.5YR (4/6), with sand, medium plasticity, medium to coarse grained sand, moist.		
		CL Sandy clay - dark red 10R (3/6), with gray mottling, medium plasticity, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-227

TOTAL DEPTH: 86 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Clayey sand - yellowish red 5YR (4/6), fine grained sand, trace coarse grained sand, poorly graded, moist.		
		SW Gravely sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, moist.		
40		MH Gravely silt - pinkish white 7.5YR (8/2), sub-rounded to sub-angular gravel, possible siltstone, dry.		
		SW Gravely sand - reddish yellow 5YR (5/6), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, moist.		
50		SP Silty sand - reddish yellow 5YR (7/6), fine to coarse grained sand, poorly graded, moist.		
		MH Sandy silt - pinkish white 5YR (8/2), medium to coarse grained sand, possible silt stone, dry.		
		SP Sand - yellowish red 5YR (5/8), with few gravel and trace cobbles, fine to coarse grained sand, sub-rounded to sub-angular gravel, sub-angular cobbles, poorly graded, moist.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-227

TOTAL DEPTH: 86 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
		SP Silty sand - reddish yellow 5YR (7/8), fine grained sand, poorly graded, moist.		
		SW Gravelly sand - yellowish red 5YR (5/6), with trace cobbles, fine grained sand, few coarse grained sand, sub-rounded to sub-angular gravel, sub-rounded cobbles, well graded, wet.		Sand Pack
70			70.69 - ft. bgs.	Screened Interval
		CL Silty clay - yellowish red 5YR (5/8), low plasticity, wet.		
		CL Clay - reddish yellow 7.5YR (6/8), low plasticity, moist.		
80		CL Clay - dark gray 2.5Y (4/1), low plasticity, moist.		
		End of Log		
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-228

TOTAL DEPTH: 79 ft.

PROJECT INFORMATION

PROJECT: Dunn Field Fluvial SVE

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 4/24/07 06:55

BOREHOLE FINISHED: 4/24/07 10:45

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 298.74 (ft, msl)

WATER DEPTH/ DATE: 75.46 -ft. toc - 5/7/07

BOREHOLE USE: Monitoring Well

NOTES: Well completed above grade with 3.06 ft. stick up.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt and gravel.		
	CH	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				Grouted Annulus
	CH	Silty clay - yellowish brown 10YR (5/6), medium plasticity, soft, moist.		
20				
	CL	Silty clay - strong brown 7.5YR (5/6), medium plasticity, soft, moist.		
	CL	Sandy clay - yellowish red 5YR (4/6), with gray mottling, fine grained sand medium plasticity, hard, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-228

TOTAL DEPTH: 79 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Clayey sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		
		SP Clayey sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		
40		SW Gravely sand - reddish yellow 5YR (6/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, moist.		
50		SW Gravely sand - reddish yellow 5YR (6/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded moist.		
		SW Gravely sand - reddish yellow 5YR (6/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: MW-228

TOTAL DEPTH: 79 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Bentonite Plug
		MH Sandy silt - light gray 2.5Y (7/2), medium to coarse grained sand, possible silt stone, dry.		
		SW Gravely sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded gravel, well graded, wet.		Sand Pack
70			72.40- ft. bgs.	Screened Interval
		CL Silty clay - dark gray 2.5Y (4/1), medium plasticity, hard, moist.		
80		End of Log		
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-A

TOTAL DEPTH: 64 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/14/2007

BOREHOLE FINISHED: 5/15/07

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 292.2 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
		CH Silty clay - dark yellowish brown 10YR (3/6), high plasticity, moist.		
10		CH Silty clay - strong brown 7.5YR (5/8), medium plasticity, moist.		
20		CL Sandy clay with gray mottling - red 2.5YR (4/6), fine grained sand with trace medium sand, medium plasticity, moist.		Bentonite Plug
30				

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BOREHOLE NO.: SVE-A

TOTAL DEPTH: 64 ft.

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-A
TOTAL DEPTH: 64 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
70		End of Log		
80				
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-B

TOTAL DEPTH: 61 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/16/2007

BOREHOLE FINISHED: 5/16/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 290.62 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
	CL	Silty clay - gray 2.5YR (5/1), medium plasticity, moist.		
	CL	Silty clay with gray mottling - dark yellowish brown 10YR (3/6), medium plasticity, moist.		
10				Grouted Annulus
20	CH	Silty clay with gray mottling - dark yellowish brown 10YR (3/6), medium plasticity, moist. Soil had a chlorine odor.		
	CL	Sandy clay with trace gravel - dark yellowish brown 10YR (4/4), fine grained sand, sub-rounded to sub-angular gravel, medium plasticity. Soil had a chlorine odor.		
30				Bentonite Plug

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-B

TOTAL DEPTH: 61 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with little clay - dark red 2.5YR (3/6), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		Sand Pack
		SP Sand with some silt - red 2.5YR (5/8), fine grained sand, poorly graded, dry.		
40		SP Silty sand - brownish yellow 10YR 6/8, fine grained sand, poorly sorted, dry.		Screened Interval
		SP Silty sand - brownish yellow 10YR 6/8, fine grained sand, poorly sorted, dry.		
50		SW Gravelly sand - yellowish red 5YR (5/8), fine to medium grained sand, with some coarse grained sand, sub-rounded, rounded to sub-angular gravel, well graded, moist.		
		SP Silty sand with some gravel - yellowish red 5YR (5/8), fine grained sand, sub-rounded gravel, poorly graded, dry.		
60				

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0080001
1000301**FIELD BOREHOLE LOG**

BOREHOLE NO.: SVE-B

TOTAL DEPTH: 61 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SW Gravelly sand with some silt - 10 YR (8/8), fine grained sand with some coarse grained sand, sub-rounded to rounded gravel, well graded, dry.		
		End of Log		
70				
80				
90				

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1000302



FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-C
TOTAL DEPTH: 70 ft.

PROJECT INFORMATION

PROJECT:
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 5/29/2007
BOREHOLE FINISHED:

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: D. Chamblee
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 298.56 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
		CL Silty clay, brown 10YR (4/3), medium plasticity, moist.		
10				Grouted Annulus
		CL Silty clay, dark brown 10YR (3/3), medium plasticity, soft, moist.		
20		CL Silty clay, strong brown 7.5YR (4/6), medium plasticity, hard, moist.		
		CL Silty clay with sand, dark red 2.5YR (3/6), fine grained sand, medium plasticity, hard, moist.		Bentonite Plug
30				

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1000303
S080001**FIELD BOREHOLE LOG**

BOREHOLE NO.: SVE-C

TOTAL DEPTH: 70 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Clayey sand, red 10R (4/6), fine grained sand, poorly sorted, moist.		
		SW Gravelly sand, red 2.5YR (4/8), fine to coarse grained sand, sub-angular to rounded gravel, well graded, moist.		Sand Pack
40				
		SW Gravelly sand, red 2.5YR (4/8), fine to coarse grained sand, sub-angular to sub-rounded to rounded gravel, well graded, moist.		Screened Interval
50				
		SP Silty sand, very pale brown 10YR (8/4), fine grained sand, poorly graded, moist.		
		SP Silty sand, yellow 10YR (7/8), fine grained sand with trace medium to coarse grained sand, poorly graded, dry.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-D

TOTAL DEPTH: 71 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/23/2007

BOREHOLE FINISHED: 5/23/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 301.41 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
	SP	Sand		
	CL	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				Grouted Annulus
	CL	Silty clay with trace sand - strong brown 7.5YR (4/6), fine grained sand, low plasticity, hard, moist.		
	CH	Sandy clay - yellowish red 5YR (4/6), fine grained sand with trace medium grained sand, high plasticity, soft, moist.		
20				
	SP	Sand with little clay - red 10R (4/8), fine grained sand, poorly graded, moist.		
30				Bentonite Plug

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PAGE: 1 of 3



FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-D

TOTAL DEPTH: 71 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
40		SW Gravelly sand - red 10R (4/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, moist.		Sand Pack
		SP Silty sand - reddish yellow 5YR (6/8), fine grained sand, poorly graded, dry.		Screened Interval
50		SP Silty sand - yellow 10YR (8/6), fine grained sand, poorly graded, dry.		
60		SW Gravelly sand - brownish yellow 10YR (6/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry.		

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-D

TOTAL DEPTH: 71 ft.

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-E

TOTAL DEPTH: 71 ft.

PROJECT INFORMATION

PROJECT:
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 6/1/2007
BOREHOLE FINISHED: 6/1/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: D. Chamblee
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 300.48 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Sand and gravel.		
		CL Silty clay - dark yellowish brown 10YR (3/6), medium plasticity, soft, moist.		
10				Grouted Annulus
		CL Silty clay - dark yellowish brown 10YR (3/6), medium plasticity, soft, moist.		
20				
		CL Silty clay with some sand - red 2.5 YR (5/8), fine grained sand, medium plasticity, hard, moist.		
		CL Silty clay with some sand - red 2.5 YR (5/8), fine grained sand, medium plasticity, hard, moist.		
30				Bentonite Plug

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-E

TOTAL DEPTH: 71 ft.


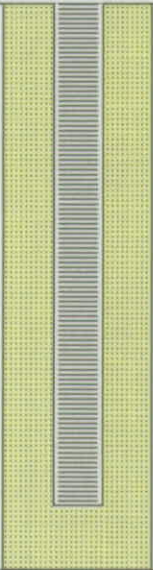

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with little clay - red 10R (4/8), fine grained sand with some medium to coarse grained sand, poorly graded, dry.		
		SP Silty sand - reddish yellow 5YR (7/6), fine to medium grained sand with some medium to coarse grained sand, poorly graded, dry.		
40		SW Gravelly sand - light yellowish brown 10YR (6/4), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, dry.		Sand Pack
50		SP Silty sand with some gravel - red 2.5YR (5/8), fine to coarse grained sand, rounded gravel, poorly graded, dry.		Screened Interval
60		SW Gravelly sand - reddish yellow 7.5YR (6/8), fine to coarse grained sand, sub-angular to sub-rounded gravel, well graded, dry.		

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BOREHOLE NO.: SVE-E
TOTAL DEPTH: 71 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				
		SP Silty sand - light yellowish brown 2.5Y (6/3), fine grained sand, poorly graded, dry.		
70				
		End of Log		
80				
90				

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-F

TOTAL DEPTH: 63.5 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/4/2007

BOREHOLE FINISHED: 6/5/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: D. Chamblee

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 293.37 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Rocks		
	CL	Silty clay - gray 10YR 5/1, medium plasticity, hard, moist.		
	CH	Silty clay with trace sand - strong brown 7.5 YR (4/6), high plasticity, fine grained sand, soft, moist.		
10				Grouted Annulus
	CH	Silty clay with trace sand - strong brown 7.5 YR (4/6), high plasticity, fine grained sand, soft, moist.		
20				Bentonite Plug
	CH	Sandy clay - yellowish red 5YR (4/6), fine grained sand, medium plasticity, soft, moist.		
	CL	Sandy clay with gray mottling - red 2.5YR (4/8), fine grained sand, medium plasticity, soft, moist.		
30				Sand Pack

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-F

TOTAL DEPTH: 63.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with some gravel and trace clay - red 2.5YR (4/6), fine to coarse grained sand, sub-angular to sub-rounded gravel, poorly graded, moist.		Sand Pack
		SP Sand with some gravel - red 2.5YR (5/8), fine to coarse grained sand, sub-angular to sub-rounded gravel, poorly graded, moist.		
40				Screened Interval
50		SW Sand with some gravel - light yellowish brown 2.5Y (6/4), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry; Poor recovery - approx. 4.0'.		
60		SP Silty sand - reddish yellow 5YR (6/8), fine grained sand with some medium to coarse grained sand, poorly graded, dry.		

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-F

TOTAL DEPTH: 63.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		End of Log		
70				
80				
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-G

TOTAL DEPTH: 70 ft.

PROJECT INFORMATION

PROJECT: 1000314
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 6/5/2007
BOREHOLE FINISHED: 6/6/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: D. Chamblee
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 298.15 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Soil Vapor Extration

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt		
		CL Silty clay - brown 7.5YR (4/4), medium plasticity, soft, moist.		
10				Grouted Annulus
		CL Silty clay - brown 7.5YR (4/4), medium plasticity, soft, moist.		
20				
		CL Sandy clay - yellowish red 5YR (4/6), fine grained sand with trace medium grained sand, low plasticity, hard, moist.		
				Bentonite Plug
		CH Sandy clay - red 2.5YR (4/6), fine grained sand with trace medium grained sand, medium plasticity, hard, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-G

TOTAL DEPTH: 70 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with trace clay - yellowish red 5YR (5/8), fine grained sand with trace medium grained sand, poorly graded, moist.		
		SP Sand with some gravel - yellowish red 5YR (4/6), fine to coarse grained sand, sub-rounded to rounded to sub-angular gravel, poorly graded, moist.		Sand Pack
40				
		SW Gravelly Sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		Screened Interval
50				
		SW Silty sand with gravel - yellow 10YR (8/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, dry.		
		SW Gravelly sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, dry; Lost 55 - 58' (3.0') sample when bag broke.		
60				

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FIELD BOREHOLE LOG

BOREHOLE NO.: SVE-G

TOTAL DEPTH: 70 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SW Silty sand with gravel - dark yellowish brown 10YR (4/4), fine grained sand with some medium to coarse grained sand, sub-angular to sub-rounded to rounded gravel, well graded, dry.		
		SW Silty sand with gravel - dark yellowish brown 10YR (4/4), fine to coarse grained sand, sub-angular to sub-rounded to rounded gravel, well graded, dry.		
70		End of Log		
80				
90				

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-1A

TOTAL DEPTH: 59 ft.

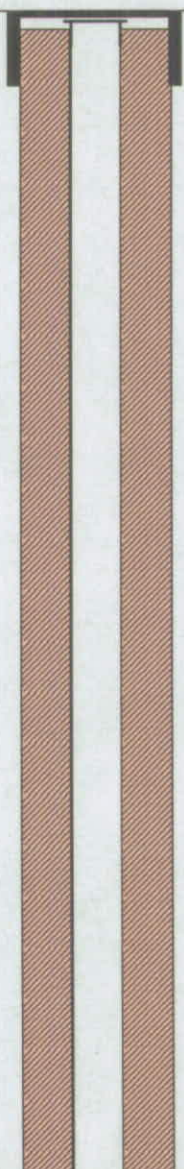
PROJECT INFORMATION

PROJECT:
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED:
BOREHOLE FINISHED:

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 292.51 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CL	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, moist.		
10				
	CH	Silty clay with some fine grained sand - strong brown 7.5 YR (5/6), medium plasticity, moist.		
20				
	CL	Sandy clay - strong brown 7.5YR (5/8), medium plasticity, fine grained, moist.		
30				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-1A

TOTAL DEPTH: 59 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with some clay - dark red 10R (3/6), fine grained with some coarse grained sand, poorly graded, moist.		
		SP Sand with some gravel - dark red 10R (3/6), fine grained sand with some medium to coarse grained sand, sub-rounded to rounded gravel, poorly graded, moist.		
40				Bentonite Plug
		SP Silty sand - reddish yellow 7.5 YR (6/8), fine grained, poorly graded, dry.		
		SP Silty sand - yellow 10YR (7/8), fine grained, poorly graded, dry.		
50				Sand Pack
		SW Gravelly sand - brownish yellow 10YR (6/8), fine to medium grained sand, sub-rounded to sub-angular gravel, well graded, moist.		Screened Interval
60		End of Log		

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-1B

TOTAL DEPTH: 42.5 ft.

PROJECT INFORMATION

PROJECT:
 PROJECT NO.: 3202-031
 SITE LOCATION: DF
 PROJECT MANAGER: T. Holmes
 FIELD STAFF: J. Anstaett
 BOREHOLE STARTED:
 BOREHOLE FINISHED:

DRILLING INFORMATION

DRILLING CO.: Prosonic
 DRILLER: J. Asua
 DRILLING METHOD/RIG: Sonic
 BOREHOLE DIAMETER: 6-in.
 GROUND SURFACE ELEVATION: 292.51 (ft, msl)
 WATER DEPTH/ DATE: NA
 BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
	CH	Silty clay - brown 7.5YR (4/4), medium plasticity, soft, moist.		
10				Grouted Annulus
	CH	Silty clay - brown 7.5YR (4/4), medium plasticity, soft, moist.		
20				
	CL	Sandy clay - strong brown 7.5YR (5/6), low plasticity, soft, moist.		
	CL	Sandy clay with gray mottling - red 10R (4/6), fine grained sand, soft, moist.		
30				Bentonite Plug

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-1B

TOTAL DEPTH: 42.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with trace clay - dark red 10R (3/6), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		
		SW Gravelly sand - dark red 10R (3/6), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		
40		SP Silty sand - red 2.5YR (4/8), fine grained, poorly graded, moist.		Sand Pack Screened Interval
		End of Log		
50				
60				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-2A

TOTAL DEPTH: 60 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/17/2007

BOREHOLE FINISHED: 5/17/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 289.64 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CH	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
	CL	Silty clay - gray 10YR (5/1), medium plasticity, hard, moist.		
10				
	CL	Silty clay with fine grained sand - brown 10YR (4/3), medium plasticity, soft, moist.		
20				
	CL	Sandy clay with fine grained sand - strong brown 7.5 YR (5/8), low plasticity, hard, moist.		
	CL	Sandy clay with fine grained sand - strong brown 7.5YR (5/8), low plasticity, hard, moist.		
30				

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-2A

TOTAL DEPTH: 60 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SW Sand with some gravel - red 10R (4/6), fine to medium grained, sub-rounded gravel, well graded, moist.		
		SP Silty sand - red 2.5YR (4/8), fine grained, poorly graded, moist.		
40		SP Silty sand - reddish yellow 7.5 YR (7/8), fine grained, poorly graded, dry.		Bentonite Plug
50		SW Sand with some gravel - yellowish red 5YR (5/8), fine to coarse grained, sub-rounded; rounded to sub-angular gravel, well graded, moist.		Sand Pack Screened Interval
		SP Sand with some gravel - reddish yellow 7.5YR (6/8), fine to medium grained, sub-rounded to sub-angular gravel, poorly graded, moist.		
60				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-2B

TOTAL DEPTH: 41.5 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/20/2007

BOREHOLE FINISHED: 5/20/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 289.35 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
	CH	Silty clay - gray 10YR (5/1), high plasticity, soft, moist.		
10				Grouted Annulus
	CH	Silty clay - gray 10YR (5/1), high plasticity, soft, moist.		
20	CH	Silty clay with some sand - 10YR (4/3), fine to medium grained sand, medium plasticity, hard, moist.		
	CL	Sandy clay with gray mottling - red 10R (4/6), fine to coarse grained sand, low plasticity, hard, moist.		Bentonite Plug
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-2B

TOTAL DEPTH: 41.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with some gravel - dark red 10R (3/6), fine to medium grained sand with some coarse grained sand, sub-rounded to sub-angular gravel, poorly graded, trace clay, moist.		Sand Pack
40		SP Silty sand - red 2.5YR (4/8), fine grained sand, poorly graded, moist.		Screened Interval
		End of Log		
50				
60				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-3A

TOTAL DEPTH: 64 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/17/2007

BOREHOLE FINISHED: 5/17/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 297.54 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CL	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				
	CL	Silty clay - yellowish red 5YR (4/6), medium plasticity, hard, moist.		
20				
	CH	Sandy clay with gray mottling - dark red 10R (3/6), fine to medium grained sand, soft, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-3A

TOTAL DEPTH: 64 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with little clay and gravel - red 2.5YR (4/6), fine to medium grained, with some coarse grained sand, sub-angular gravel, poorly graded, moist.		
		SP Sand with trace clay - dark red 10R (3/6), fine to medium grained, poorly graded, moist.		
40		SP Sand with few gravel - red 2.5YR (4/8), fine to coarse grained sand, sub-rounded gravel, poorly graded, moist.		
		SP Silty sand - reddish yellow 7.5 YR (7/8), fine grained, poorly graded, dry.		
		SP Silty sand - 7.5YR (8/6), fine grained, poorly graded, dry.		Bentonite Plug
50		SP Silty sand - very pale brown 10YR (8/4), fine grained with some medium to coarse grained sand, poorly graded, dry.		
		CH Clay - very pale brown 10YR (7/3), high plasticity, soft, moist.		
		SP Silty sand - very pale brown 10YR (8/4), fine grained with some medium to coarse grained sand, poorly graded, dry.		
60				Sand Pack

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-3A

TOTAL DEPTH: 64 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SW Gravelly sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to sub-angular gravel, well graded, dry. No Recovery		Screened Interval
70		End of Log		
80				
90				

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-3B

TOTAL DEPTH: 46 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/20/2007 12:25

BOREHOLE FINISHED: 5/20/2007 13:45

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 297.83 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:




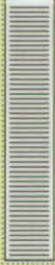

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
		CL Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				Grouted Annulus
		CL Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
20		CL Silty clay with gray mottling - strong brown 7.5YR (4/6), low plasticity, hard, moist.		
		CL Sandy clay with gray mottling - dark red 10R (3/6), fine grained sand, low plasticity, hard, moist.		
30				Bentonite Plug

Created By:

Checked By:

BOREHOLE NO.: VP-3B

TOTAL DEPTH: 46 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with trace clay - red 10R (4/6), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		Sand Pack
		SP Sand with trace clay - red 10R (4/6), fine grained sand with some medium to coarse grained sand, poorly graded, moist. SP Silty sand - red 10R (4/8), fine grained sand, poorly graded, moist.		Screened Interval
		SW Gravelly sand - red 10R (4/6), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		
		End of Log		
50				
60				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-4A

TOTAL DEPTH: 66 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/18/2007 12:05

BOREHOLE FINISHED: 5/18/2007 15:03

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 299.3 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CL	Silty clay - strong brown, 7.5YR (4/6), medium plasticity, soft, moist.		
10				
	CH	Silty clay with trace sand - yellowish red 5YR (4/6), fine grained sand, medium plasticity, soft, moist.		
20				
	CL	Sandy clay with gray mottling - red 10R (4/6), fine grained sand, hard, moist.		
30				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-4A

TOTAL DEPTH: 66 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
	[Symbol]		[Symbol]	
	[Symbol]	SP Sand with some clay - red 2.5YR (4/6), fine grained sand, poorly graded, moist.	[Symbol]	
	[Symbol]	SP Sand with trace clay - dark red 2.5YR (3/6), fine grained sand with some medium to coarse grained sand, poorly graded, moist.	[Symbol]	
40	[Symbol]	SP Sand with trace gravel - red 2.5YR (4/8), fine grained sand with some medium to coarse grained sand, poorly graded, moist.	[Symbol]	
	[Symbol]	SP Silty sand - very pale brown 10YR (8/2), fine grained sand, poorly graded, dry.	[Symbol]	Bentonite Plug
50	[Symbol]	SP Silty sand - very pale brown 10YR (8/2), fine grained sand, poorly graded, dry.	[Symbol]	
	[Symbol]	CH Silty clay - pale brown (6/3), high plasticity, soft, moist.	[Symbol]	Sand Pack
60	[Symbol]		[Symbol]	

Created By:

Checked By:


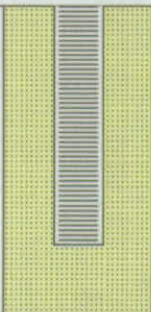
PAGE: 2 of 3



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-4A

TOTAL DEPTH: 66 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SW Gravelly sand - yellow 10YR (7/8), fine to coarse grained sand, sub-rounded to sub-angular to rounded gravel, well graded, dry.		Sand Pack Screened Interval
70		End of Log		
80				
90				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-4B

TOTAL DEPTH: 45.6 ft.

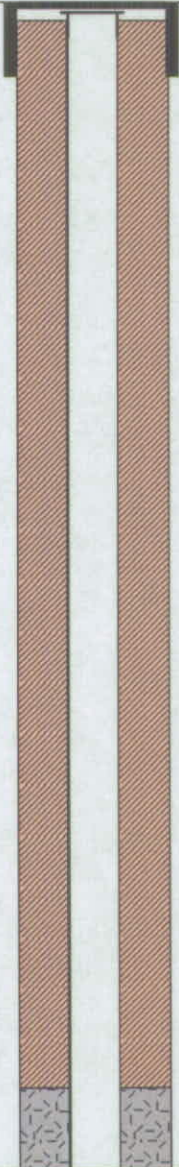
PROJECT INFORMATION

PROJECT:
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 6/1/2007 14:10
BOREHOLE FINISHED: 6/1/2007 16:15

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 299.36 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CL	Silty clay - dark brown 7.5YR (3/4), medium plasticity, hard, moist.		
10				
	CL	Silty clay - dark brown 7.5YR (3/4), medium plasticity, hard, moist.		Bentonite Plug
20				
	CH	Silty clay - yellowish red 5YR (4/6), medium plasticity, soft, moist.		
	CL	Sandy clay - red 10R (4/6), medium plasticity, hard, moist.		
30				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-4B

TOTAL DEPTH: 45.6 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with little clay - dark red 10R (3/6), fine grained sand, poorly graded, moist.		
		SP Sand with trace clay - red 10R (4/6), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		
40				
		SP Sand with trace gravel - red 2.5YR (5/8), fine grained sand with trace medium to coarse grained sand, sub-rounded to sub-angular gravel, poorly graded, moist.		Sand Pack Screened Interval
		End of Log		
50				
60				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-5A

TOTAL DEPTH: 66.5 ft.

PROJECT INFORMATION

PROJECT:
 PROJECT NO.: 3202-031
 SITE LOCATION: DF
 PROJECT MANAGER: T. Holmes
 FIELD STAFF: J. Anstaett
 BOREHOLE STARTED: 5/21/2007 07:20
 BOREHOLE FINISHED: 5/21/2007 10:30

DRILLING INFORMATION

DRILLING CO.: Prosonic
 DRILLER: J. Asua
 DRILLING METHOD/RIG: Sonic
 BOREHOLE DIAMETER: 6-in.
 GROUND SURFACE ELEVATION: 301.42 (ft, msl)
 WATER DEPTH/ DATE: NA
 BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Sand		Grouted Annulus
	CH	Silty clay - brown 7.5YR (4/4), high plasticity, soft, moist.		
10				
	CH	Silty clay - yellowish red 5YR (4/6), medium plasticity, soft, moist.		
20	CL	Sandy clay with gray mottling - red 10R (4/6), fine grained sand, soft, moist.		
30				

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-5A

TOTAL DEPTH: 66.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
40		SP Silty sand with trace clay - yellowish red 5YR (5/8), poorly graded, moist.		
		SW Gravelly sand - red 10R (4/8), fine to coarse grained, sub-rounded to sub-angular gravel, well graded, moist.		
		SP Sand - yellowish red 5YR (5/8), fine grained, poorly graded, moist.		
		SP Silty sand - very pale brown 10YR (8/4), fine grained, poorly graded, dry.		
50				
				Bentonite Plug
		SW Silty sand with trace gravel - yellowish red 5YR (5/8), fine to coarse grained, sub-rounded to rounded gravel, well graded, dry.		
60				

Created By:

Checked By:


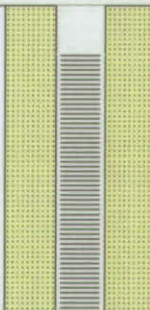
PAGE: 2 of 3



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-5A

TOTAL DEPTH: 66.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Sand Pack Screened Interval
70		End of Log		
80				
90				

Created By:

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Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-5B

TOTAL DEPTH: 46 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/2/2007 12:30

BOREHOLE FINISHED: 6/2/2007 13:45

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 301.33 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Sand		Grouted Annulus
	CH	Silty clay with trace sand - dark yellowish brown 10YR (4/4), fine to medium grained sand, high plasticity, soft, moist.		
10				
	CH	Sandy clay - yellowish red 5YR (4/6), fine grained sand, medium plasticity, soft, moist.		
20				
	CH	Sandy clay - yellowish red 5YR (4/6), fine grained sand with trace medium grained sand, medium plasticity, soft, moist.		
30				

Created By:

Checked By:


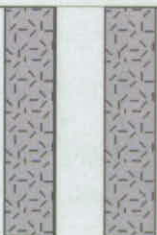





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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-5B

TOTAL DEPTH: 46 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		CL Sandy clay with gray mottling - red 10 R (4/6), fine to medium grained sand, low plasticity, hard, moist.		Bentonite Plug
		SP Clayey sand - red 10R (4/8), fine grained sand, poorly graded, moist.		
		SP Clayey sand - red 10R (4/8), fine grained sand, poorly graded, moist.		
40		SP Sand with some gravel - red 10R (4/6), fine grained sand with some medium to coarse grained sand, sub-rounded to rounded gravel, poorly graded, moist.		
		SP Sand - yellow 10YR (7/8), fine grained sand with trace medium grained sand, poorly graded, dry.		Screened Interval
		End of Log		
50				
60				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-6A

TOTAL DEPTH: 66.5 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 5/22/2007 07:40

BOREHOLE FINISHED: 5/22/2007 10:00

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: D. Chamblee

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 300.83 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Sand		Grouted Annulus
	CL	Silty clay - dark yellowish brown 10YR (3/4), medium plasticity, soft, moist.		
10				
	CL	Sandy clay - yellowish red 5YR (5/6), fine grained sand, medium plasticity, soft, moist.		
20				
	SP	Sand with little clay - dark red 10R (3/6), fine grained sand, poorly graded, moist.		
30				

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-6A

TOTAL DEPTH: 66.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
40		SP Sand with some gravel - red 10R (4/8), fine to medium grained sand with little coarse grained sand, sub-rounded, rounded to sub-angular gravel, poorly graded, moist.		
50		SP Silty sand - yellow 10YR (7/8), fine grained sand, poorly graded, dry.		Bentonite Plug
				Sand Pack
60		SP Sand with trace gravel - strong brown 7.5YR (5/8), fine to coarse grained sand, sub-rounded gravel, poorly graded, dry.		

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-6A

TOTAL DEPTH: 66.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Silty sand - yellow 2.5Y (8/6), fine grained sand, poorly graded, dry.		Screened Interval
70		End of Log		
80				
90				

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-6B

TOTAL DEPTH: 45.5 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/3/2007 07:45

BOREHOLE FINISHED: 6/3/2007 13:05

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic


BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 300.58 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
	SP	Sand		Grouted Annulus
	CH	Silty clay - strong brown 7.5YR (4/6), low plasticity, soft.		
10				
	CH	Silty clay with trace sand - strong brown 7.5YR (4/6), fine to coarse grained sand, high plasticity, soft, moist.		
20				
	CL	Sandy clay with gray mottling - red 10R (4/8), fine grained sand, medium plasticity, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-6B

TOTAL DEPTH: 45.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Silty sand - red 10R (4/8), fine grained sand, poorly graded, moist.		Bentonite Plug
		SP Silty sand - red 10R (4/8), fine grained sand, poorly graded, moist.		Sand Pack
40		SP Sand with some gravel - red 2.5YR (4/6), fine grained sand with some medium to coarse grained sand, sub-rounded to rounded gravel, poorly graded, moist		Screened Interval
		End of Log		
50				
60				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-7A

TOTAL DEPTH: 58 ft.

PROJECT INFORMATION

PROJECT:
 PROJECT NO.: 3202-031
 SITE LOCATION: DF
 PROJECT MANAGER: T. Holmes
 FIELD STAFF: J. Anstaett
 BOREHOLE STARTED: 6/11/2007 07:40
 BOREHOLE FINISHED: 6/11/2007 12:00

DRILLING INFORMATION

DRILLING CO.: Prosonic
 DRILLER: J. Asua
 DRILLING METHOD/RIG: Sonic
 BOREHOLE DIAMETER: 6-in.
 GROUND SURFACE ELEVATION: 293.34 (ft, msl)
 WATER DEPTH/ DATE: NA
 BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		Grouted Annulus
	CH	Silty clay with trace sand - dark yellowish brown 10YR (4/6), fine grained sand, high plasticity, soft, moist.		
10				
	CH	Sandy clay - red 2.5YR (4/6), fine grained sand, medium plasticity, hard, moist.		
20				
	SP	Silty sand with trace clay - red 5YR (5/8), fine grained sand with trace medium grained sand, poorly graded, moist.		
30				

Created By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-7A

TOTAL DEPTH: 58 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
40		SP Silty sand - yellow 10YR (7/6), fine grained sand, poorly graded, dry.		
50		SP Silty sand - yellow 10YR (7/6), fine grained sand with trace medium grained sand, poorly sorted, dry.		
				Bentonite Plug
				Sand Pack
				Screened Interval
60		End of Log		

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-7B

TOTAL DEPTH: 38 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/14/2007 08:20

BOREHOLE FINISHED: 6/14/2007 09:15

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 293.49 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
10	CH	Silty clay with trace sand - dark yellowish brown 10YR (3/6), fine grained sand, high plasticity, soft, moist.		Grouted Annulus
20	CH	Silty clay with gray mottling and trace sand - yellowish red 5YR (4/6), fine grained sand, medium plasticity, soft, moist.		Bentonite Plug
30	SP	Silty sand with trace clay - red 2.5YR (4/8), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		Sand Pack

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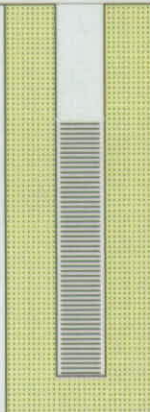
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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-7B

TOTAL DEPTH: 38 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Silty sand with some gravel - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, poorly graded, moist.		Screened Interval
40		End of Log		
50				
60				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-8A

TOTAL DEPTH: 67 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/11/2007 15:35

BOREHOLE FINISHED: 6/12/2007 09:15

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 301.42 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Grass and roots.		
	CH	Silty clay - dark brown 7.5YR (4/6), medium plasticity, hard, moist.		
10				Grouted Annulus
	CH	Silty clay with trace sand - brown 10YR (4/3), fine grained sand, high plasticity, soft, moist.		
20				
	CH	Sandy clay - strong brown 7.5YR (4/6), fine grained sand, medium plasticity, hard, moist.		
	CH	Sandy clay - strong brown 7.5YR (4/6), fine grained sand, medium plasticity, hard, moist.		
30				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-8A

TOTAL DEPTH: 67 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		CH Sandy clay with gray mottling - red 10R (4/8), fine grained sand, medium plasticity, soft, moist.		
		SP Sand with little clay - red 2.5YR (5/8), fine grained sand, poorly graded, moist.		
		SP Sand - yellowish red 5YR (5/8), fine grained sand with trace medium grained sand, poorly graded, moist.		
40		SP Sand - reddish yellow 7.5YR (6/8), fine grained sand with some medium to coarse grained sand, poorly graded, dry.		
50		SP Sand with some gravel - yellowish red 5YR (5/8), fine grained sand with some medium to coarse grained sand, sub-rounded to rounded to sub-angular gravel, poorly graded, moist.		Bentonite Plug
60		SW Gravelly sand - strong brown 7.5YR (5/8), fine to coarse grained sand, sub-angular to sub-rounded to rounded gravel, well graded, moist.		Sand Pack

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Checked By:


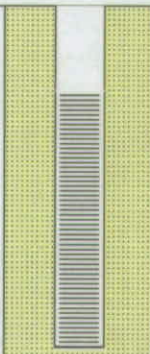
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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-8A

TOTAL DEPTH: 67 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Screened Interval
70		End of Log		
80				
90				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-8B

TOTAL DEPTH: 46.5 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/14/2007

BOREHOLE FINISHED: 6/15/2007

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 301.46 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Dirt and rocks.		
		CL Silty clay - dark yellowish brown 10YR (4/4), low plasticity, soft, moist.		
10				Grouted Annulus
		CH Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
20				
		CH Sandy clay - dark yellowish brown 10YR (4/6), fine grained sand, medium plasticity, soft, moist.		
30				

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-8B

TOTAL DEPTH: 46.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		CL Sandy clay with gray mottling - red 10R (4/6), fine grained sand, medium plasticity, soft, moist.		
		SP Sand with some clay - red 2.5YR (4/8), fine grained sand, poorly graded, moist.		
		SP Silty sand - red 10R (4/8), fine grained sand, poorly graded, dry.		
40		SW Gravelly sand - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		
		SP Sand - yellowish red 5YR (5/8), fine grained sand with trace medium to coarse grained sand, poorly graded, moist.		
		End of Log		
50				
60				

Created By:

Checked By:

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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-9A

TOTAL DEPTH: 66 ft.


PROJECT INFORMATION

PROJECT:
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 6/12/2007 13:35
BOREHOLE FINISHED: 6/13/2007 07:30

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 297.19 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt		Grouted Annulus
		CL Silty clay - dark yellowish brown 10YR (3/4), medium plasticity, soft, moist.		
10				
		CL Silty clay with trace sand - dark yellowish brown 10YR (3/4), medium plasticity, soft, moist.		
20				
		CL Sandy clay - strong brown 7.5YR (4/6), fine grained sand, low plasticity, hard, moist.		
		CL Sandy clay - strong brown 7.5YR (4/6), fine grained sand, low plasticity, hard, moist.		
30				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-9A

TOTAL DEPTH: 66 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand - yellowish red 5YR (5/8), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		
		SW Sand with some gravel - yellowish red 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		
40		SW Gravelly sand with silt - yellow 10YR (8/6), fine to coarse grained sand, rounded to sub-rounded gravel, well graded, dry.		
		SP Silty sand with some gravel - yellow 10YR (7/6), fine to coarse grained sand, sub-rounded to rounded gravel, poorly graded, dry.		
50		SP Silty sand - reddish yellow 7.5YR (7/8), fine grained sand with trace medium to coarse grained sand, poorly graded, dry.		
60		SP Silty sand - reddish yellow 7.5YR (7/8), fine grained sand with trace medium to coarse grained sand, poorly graded, dry.		

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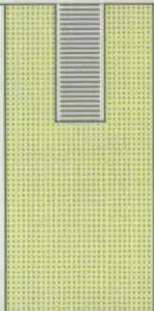
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FIELD BOREHOLE LOG

BOREHOLE NO.: VP-9A
TOTAL DEPTH: 66 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Screened Interval
70		End of Log		
80				
90				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-9B

TOTAL DEPTH: 42.5 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/14/2007 11:56

BOREHOLE FINISHED: 6/14/2007 12:50

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 297.47 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt		
	CH	Silty clay - dark yellowish brown 10YR (3/6), high plasticity, soft, moist.		
10				Grouted Annulus
	CH	Silty clay with trace sand - dark yellowish brown 10YR (3/6), fine grained sand, medium plasticity, soft, moist.		
20				
	CH	Sandy clay - strong brown 7.5YR (4/6), fine grained sand with trace medium grained sand, medium plasticity, soft, moist.		
	CH	Sandy clay with gray mottling - yellowish red 5YR (5/8), fine grained sand, medium plasticity, soft, moist.		
30				Bentonite Plug

Created By:

Checked By:

PAGE: 1 of 2



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-9B

TOTAL DEPTH: 42.5 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Sand with trace clay - red 2.5YR (5/8), fine grained sand with some medium to coarse grained sand, poorly graded, moist.		Sand Pack Screened Interval
		SP Sand with some gravel - reddish yellow 5YR (6/8), fine to coarse grained sand, rounded to sub-rounded gravel, poorly graded, moist.		
40		SP Silty sand - very pale brown 10YR (8/4), fine grained sand with some medium to coarse grained sand, poorly graded, dry.		
		End of Log		
50				
60				

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-10A

TOTAL DEPTH: 65.6 ft.

PROJECT INFORMATION

PROJECT:

PROJECT NO.: 3202-031

SITE LOCATION: DF

PROJECT MANAGER: T. Holmes

FIELD STAFF: J. Anstaett

BOREHOLE STARTED: 6/13/2007 10:05

BOREHOLE FINISHED: 6/13/2007 13:30

DRILLING INFORMATION

DRILLING CO.: Prosonic

DRILLER: J. Asua

DRILLING METHOD/RIG: Sonic

BOREHOLE DIAMETER: 6-in.

GROUND SURFACE ELEVATION: 300.15 (ft, msl)

WATER DEPTH/ DATE: NA

BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt		
	CH	Silty clay - dark yellowish brown 10YR (3/6), medium plasticity, soft, moist.		
10				Grouted Annulus
	CH	Silty clay with trace sand - dark yellowish brown 10YR (3/6), fine grained sand, medium plasticity, soft, moist.		
20				
	CH	Silty clay with some sand - strong brown 7.5YR (4/6), fine grained sand, medium plasticity, soft, moist.		
	CH	Sandy clay - yellowish red 5YR (4/6), fine grained sand with some medium to coarse grained sand, medium plasticity, soft, moist.		
30				

Created By:

PAGE: 1 of 3

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-10A

TOTAL DEPTH: 65.6 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		
40		SP Sand with some gravel - yellowish red 5YR (4/6), fine to coarse grained sand, sub-rounded to rounded gravel, poorly graded, moist.		
50		SP Sand with some gravel - trace cobbles, strong brown 7.5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, sub-rounded cobbles, poorly graded, moist.		Bentonite Plug
60		SW Gravelly sand - reddish yellow 5YR (5/8), fine to coarse grained sand, sub-rounded to rounded gravel, well graded, moist.		

Created By:

Checked By:

PAGE: 2 of 3



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-10A

TOTAL DEPTH: 65.6 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
				Sand Pack Screened Interval
70		End of Log		
80				
90				

Created By:

PAGE: 3 of 3

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-10B
TOTAL DEPTH: 46 ft.

PROJECT INFORMATION

PROJECT:
PROJECT NO.: 3202-031
SITE LOCATION: DF
PROJECT MANAGER: T. Holmes
FIELD STAFF: J. Anstaett
BOREHOLE STARTED: 6/13/2007 10:05
BOREHOLE FINISHED: 6/13/2007 13:30

DRILLING INFORMATION

DRILLING CO.: Prosonic
DRILLER: J. Asua
DRILLING METHOD/RIG: Sonic
BOREHOLE DIAMETER: 6-in.
GROUND SURFACE ELEVATION: 300.13 (ft, msl)
WATER DEPTH/ DATE: NA
BOREHOLE USE: Vapor Monitoring Point

NOTES:

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		Asphalt		
	CH	Silty clay - dark yellowish brown 10YR (4/4), medium plasticity, soft, moist.		
10				Grouted Annulus
20	CH	Silty clay with some sand - yellowish red 5YR (4/6), fine to medium grained sand, high plasticity, soft, moist.		
30	CH	Sandy clay with gray mottling - red 2.5YR (4/6), fine grained sand, medium plasticity, soft, moist.		Bentonite Plug

Created By:

Checked By:



FIELD BOREHOLE LOG

BOREHOLE NO.: VP-10B

TOTAL DEPTH: 46 ft.

Depth	Soil Symbol	Soil Description	Well Completion	Well Description
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		
		SP Silty sand - yellowish red 5YR (5/8), fine grained sand, poorly graded, moist.		Sand Pack
40		SP Sand with trace gravel - yellowish red 5YR (5/8), fine to coarse grained sand, sub-angular to sub-rounded to rounded gravel, poorly graded, moist.		Screened Interval
		End of Log		
50				
60				

Created By:

Checked By:

*Source Areas Interim Remedial Action Completion Report
Defense Depot Memphis, Tennessee*

*September 2009
Revision 1*

40000

APPENDIX B

WELL INSTALLATION DIAGRAMS



WELL INSTALLATION DIAGRAM

WELL NO.: MW-220

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DE
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 5/4/07
 WELL LOCATION: Dunn Field TA-1C

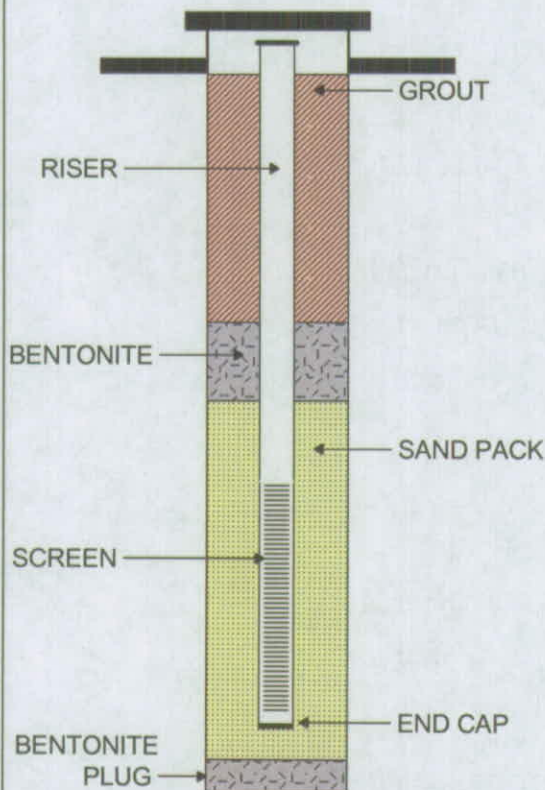
NORTHING: 281617.49
 EASTING: 802166.87
 GROUND SURFACE ELEVATION (ft, msl): 290.31
 TOP OF CASING ELEVATION (ft, msl): 293.29
 TOP OF SCREEN ELEVATION (ft, msl): 228.4

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: S.U. 2.8 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 9.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags
 TYPE OF GROUT: Portland Type H: 30% silica powder
 QUANTITY OF GROUT: 6-94lb. Bags Type H/3 bgs silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/10/2007
 DEPTH TO WATER (ft.btoc): 67.96

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 64.7

DEPTH TO TOP OF BENTONITE (ft, bgs): 59

DEPTH TO TOP OF SAND PACK (ft, bgs): 65

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 79.7

DEPTH TO TOP OF BACKFILL (ft, bgs): 80

TOTAL DEPTH OF BORING (ft, bgs): 86

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-221

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 5/3/07
 WELL LOCATION: Dunn Field TA-1E

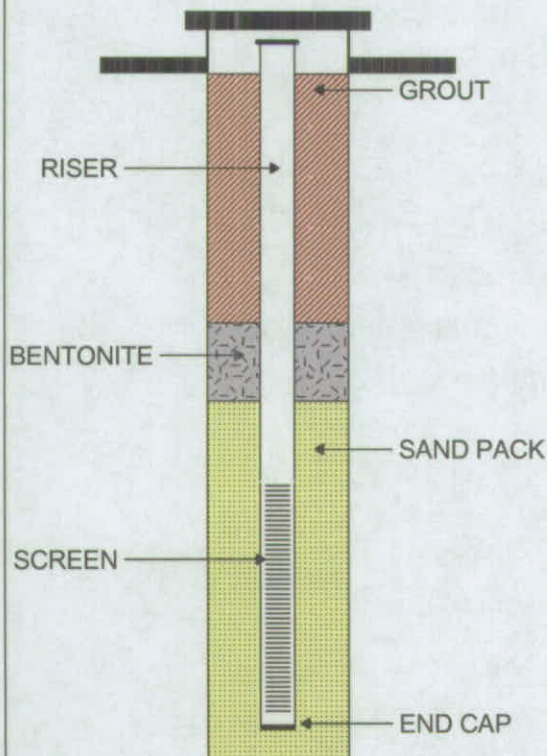
NORTHING: 281399.71
 EASTING: 802100.05
 GROUND SURFACE ELEVATION (ft, msl): 298.37
 TOP OF CASING ELEVATION (ft, msl): 301.52
 TOP OF SCREEN ELEVATION (ft, msl): 228.4

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: S.U. 3.15 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 7-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% silica powder
 QUANTITY OF GROUT: 8-94lb. Bags Type H/4 bags silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/9/2007/5/10/07
 DEPTH TO WATER (ft.btoc): 79.53

NOTES:

Well
Completion
(Not to Scale)



Well
Details

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 73.12

DEPTH TO TOP OF BENTONITE (ft, bgs): 59

DEPTH TO TOP OF SAND PACK (ft, bgs): 65

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 88.1

DEPTH TO TOP OF BACKFILL (ft, bgs): NA

TOTAL DEPTH OF BORING (ft, bgs): 86

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-222

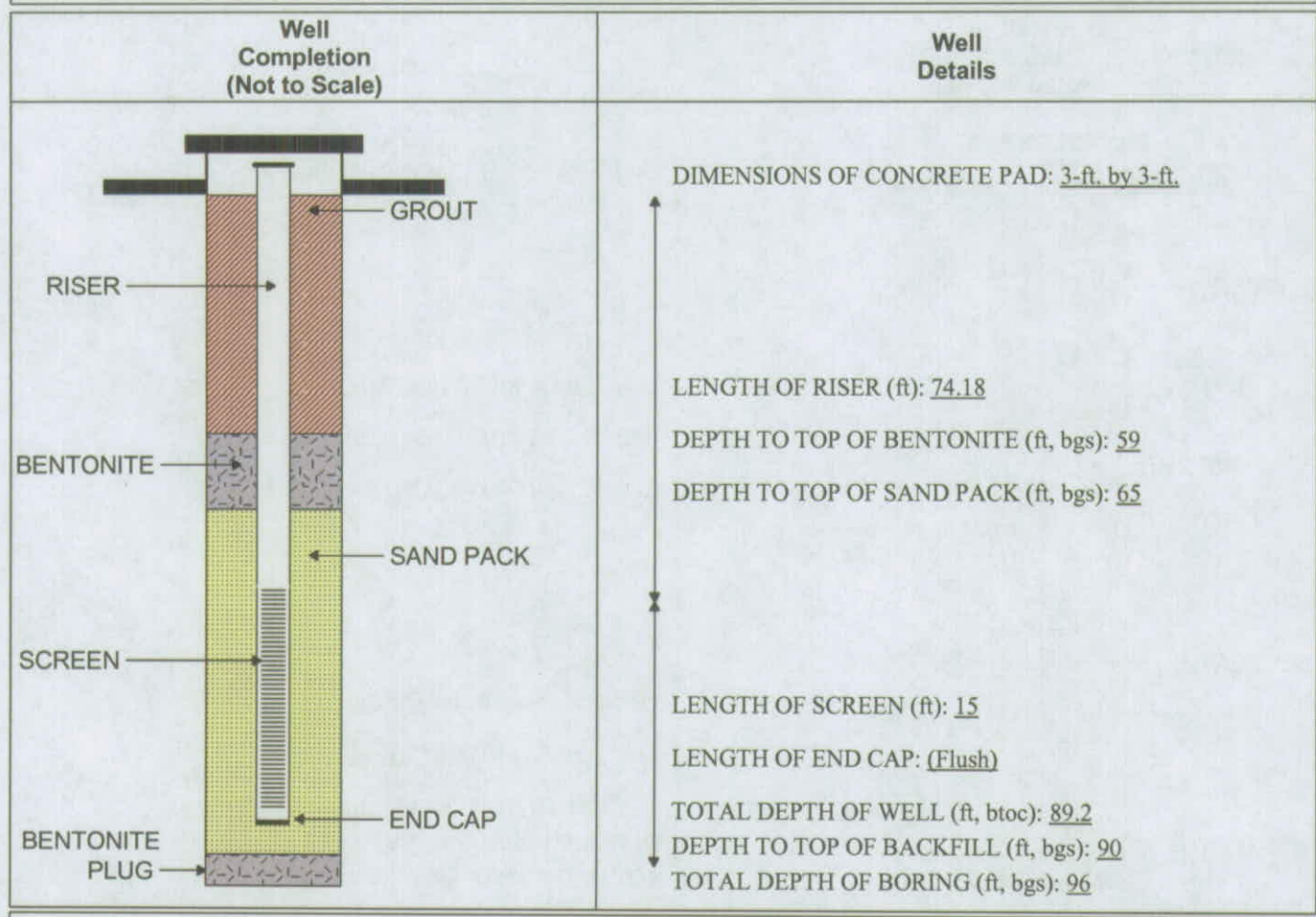
PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 5/2/07
 WELL LOCATION: Dunn Field TA-2

NORTHING: 280986.04
 EASTING: 802145.54
 GROUND SURFACE ELEVATION (ft, msl): 301.06
 TOP OF CASING ELEVATION (ft, msl): 303.82
 TOP OF SCREEN ELEVATION (ft, msl): 229.6

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Stick Up: 2.76 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 10-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% silica powder
 QUANTITY OF GROUT: 8-94lb. Bags Type H/4 bags silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/9/2007
 DEPTH TO WATER (ft.btoc): 80.05

NOTES:



Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-223

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 5/1/07
 WELL LOCATION: Dunn Field TA-2

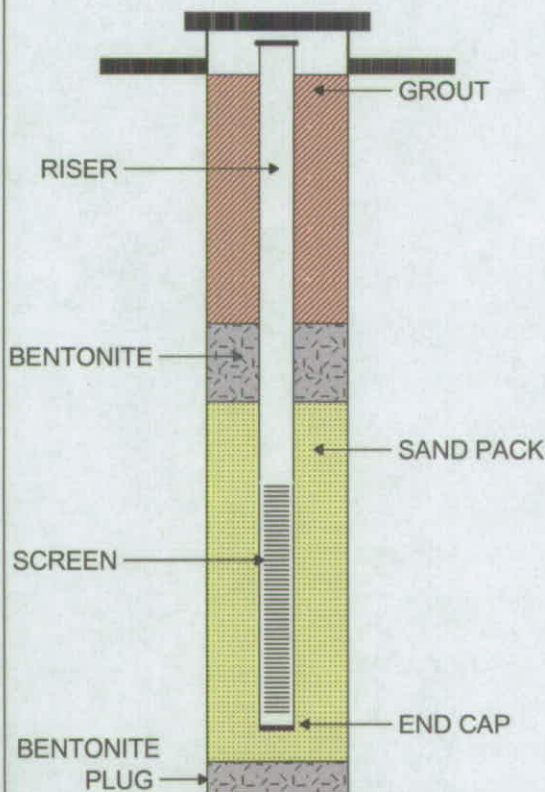
NORTHING: 280913.53
 EASTING: 802104.29
 GROUND SURFACE ELEVATION (ft, msl): 300.41
 TOP OF CASING ELEVATION (ft, msl): 303
 TOP OF SCREEN ELEVATION (ft, msl): 228.7

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Stick Up: 2.59 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 9-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% silica powder
 QUANTITY OF GROUT: 8-94lb. Bags Type H/4 bags silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/8/2007
 DEPTH TO WATER (ft, btoc): 78.90

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 73.9

DEPTH TO TOP OF BENTONITE (ft, bgs): 59

DEPTH TO TOP OF SAND PACK (ft, bgs): 65

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 88.9

DEPTH TO TOP OF BACKFILL (ft, bgs): 90

TOTAL DEPTH OF BORING (ft, bgs): 96

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-224

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 4/25/07
 WELL LOCATION: Dunn Field TA-2

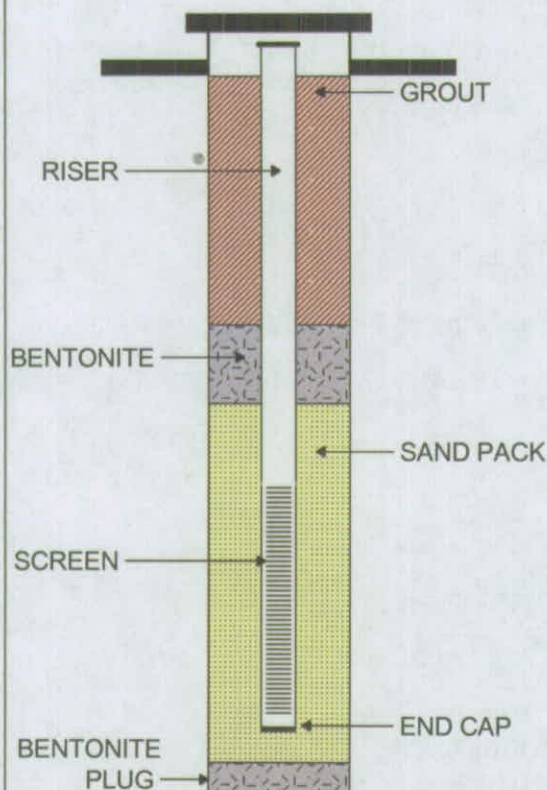
NORTHING: 281017.74
 EASTING: 802181.62
 GROUND SURFACE ELEVATION (ft, msl): 301.18
 TOP OF CASING ELEVATION (ft, msl): 304.13
 TOP OF SCREEN ELEVATION (ft, msl): 229.9

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Stick Up: 2.95 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 7.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags
 TYPE OF GROUT: Port. Type H: 30% sil. powder
 QUANTITY OF GROUT: 10-94lb. Bags Type H/5 bags sil.
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/9/2007
 DEPTH TO WATER (ft.btoc): 80.23

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 73.6

DEPTH TO TOP OF BENTONITE (ft, bgs): 59

DEPTH TO TOP OF SAND PACK (ft, bgs): 65

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 88.6

DEPTH TO TOP OF BACKFILL (ft, bgs): 90

TOTAL DEPTH OF BORING (ft, bgs): 96

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-225

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 4/30/07
 WELL LOCATION: Dunn Field TA-2

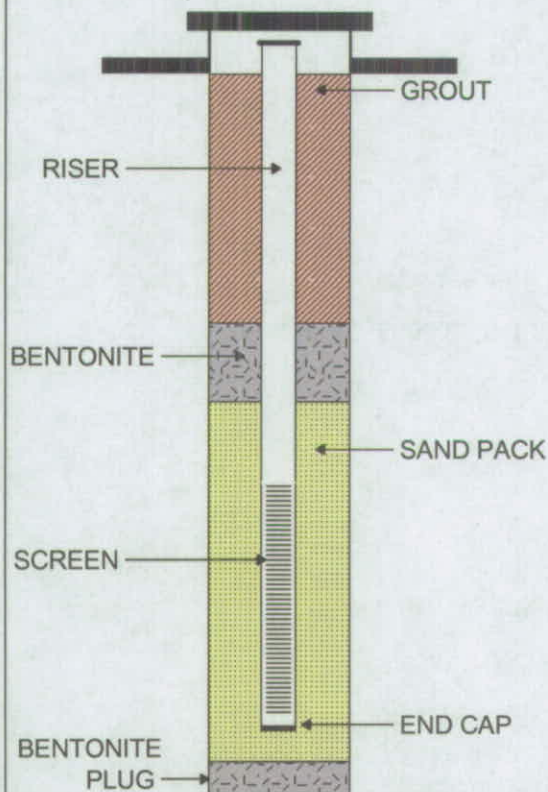
NORTHING: 280946.92
 EASTING: 802070.72
 GROUND SURFACE ELEVATION (ft, msl): 301.06
 TOP OF CASING ELEVATION (ft, msl): 304.25
 TOP OF SCREEN ELEVATION (ft, msl): 229.2

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Stick Up: 3.19 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 8.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% silica powder
 QUANTITY OF GROUT: 4-94lb. Bags Type H/2 bags silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/7/2007
 DEPTH TO WATER (ft, btoc): 80.83

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 74.8

DEPTH TO TOP OF BENTONITE (ft, bgs): 59

DEPTH TO TOP OF SAND PACK (ft, bgs): 65

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 89.8

DEPTH TO TOP OF BACKFILL (ft, bgs): 88

TOTAL DEPTH OF BORING (ft, bgs): 96

Prepared by: **WTR**

Date: **8/3/2007**

Checked by: **KS**

Date: **8/3/2007**



WELL INSTALLATION DIAGRAM

WELL NO.: MW-226

PROJECT: Dunn Field Fluvial SVE

PROJECT NUMBER: 3202-032

SITE LOCATION: DE

e2M PROJECT MANAGER: T. Holmes

e2M FIELD STAFF: Jim Anstaett

DATE COMPLETED: 5/1/07

WELL LOCATION: Dunn Field TA-2

NORTHING: 280931.94

EASTING: 802147.21

GROUND SURFACE ELEVATION (ft, msl): 300.56

TOP OF CASING ELEVATION (ft, msl): 303.19

TOP OF SCREEN ELEVATION (ft, msl): 228.5

DRILLING CO.: Prosonic

DRILLING METHOD: Sonic

BOREHOLE DIAMETER (in): 6

SURFACE COMPLETION: S.U. 2.63 ft.

BOLLARDS: No

WELL DIAMETER (in): 2

TYPE OF SCREEN/RISER MATERIAL: Stainless Steel

SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand

GRADATION OF FILTER PACK: 10-20

QUANTITY OF FILTER PACK: 9.5-50lb. Bags

TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips

QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags

TYPE OF GROUT: Portland Type H; 30% silica powder

QUANTITY OF GROUT: 8-94lb. Bags Type H/4 bags silica

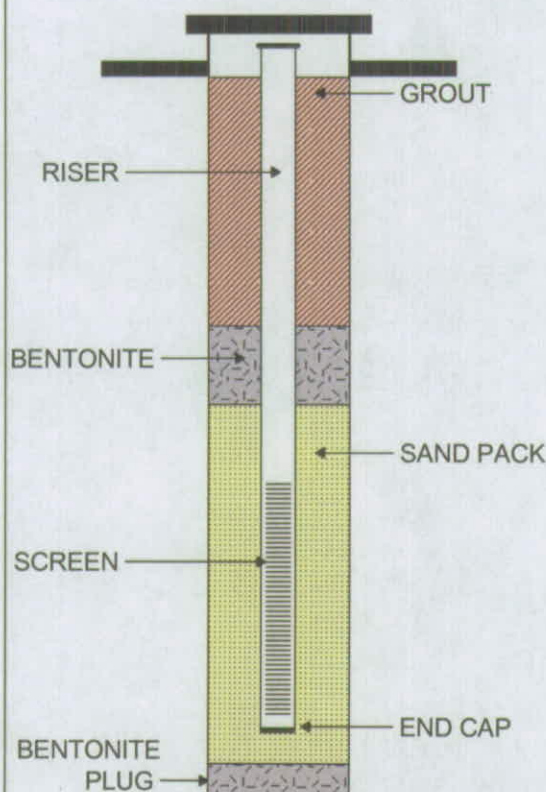
DEVELOPMENT METHOD: Grundfos

DATE DEVELOPED: 5/8/2007

DEPTH TO WATER (ft.btoc): 79.30

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 74

DEPTH TO TOP OF BENTONITE (ft, bgs): 58

DEPTH TO TOP OF SAND PACK (ft, bgs): 64

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 89

DEPTH TO TOP OF BACKFILL (ft, bgs): 90

TOTAL DEPTH OF BORING (ft, bgs): 96

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-227

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 4/23/07
 WELL LOCATION: Dunn Field TA-4

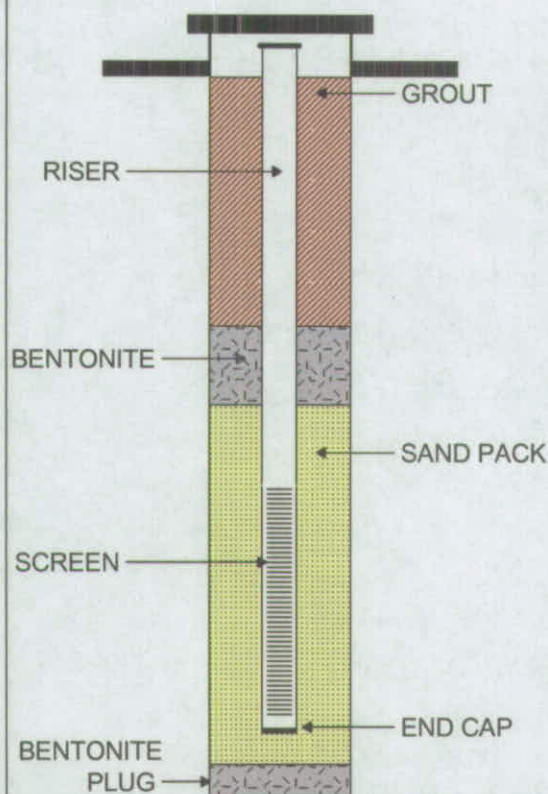
NORTHING: 280257.91
 EASTING: 802081
 GROUND SURFACE ELEVATION (ft, msl): 296.64
 TOP OF CASING ELEVATION (ft, msl): 299.7
 TOP OF SCREEN ELEVATION (ft, msl): 236.2

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Stick Up: 3.06 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 7-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 4-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% silica powder
 QUANTITY OF GROUT: 8-94lb. Bags Type H/4 bags silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/7/2007
 DEPTH TO WATER (ft.btoc): 73.75

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 63.6

DEPTH TO TOP OF BENTONITE (ft, bgs): 50

DEPTH TO TOP OF SAND PACK (ft, bgs): 56

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 78.6

DEPTH TO TOP OF BACKFILL (ft, bgs): 80

TOTAL DEPTH OF BORING (ft, bgs): 86

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: MW-228

PROJECT: Dunn Field Fluvial SVE
 PROJECT NUMBER: 3202-032
 SITE LOCATION: DF
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: Jim Anstaett
 DATE COMPLETED: 4/24/07
 WELL LOCATION: Dunn Field TA-4

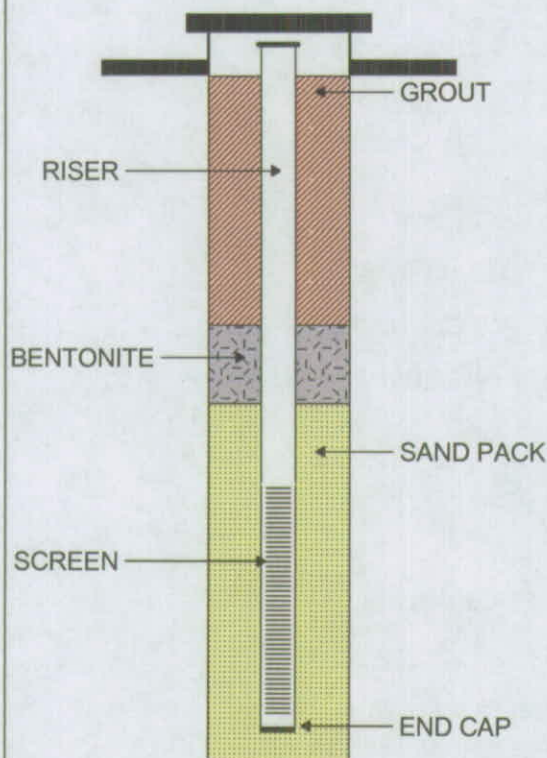
NORTHING: 280251.88
 EASTING: 802157.4
 GROUND SURFACE ELEVATION (ft, msl): 298.59
 TOP OF CASING ELEVATION (ft, msl): 301.65
 TOP OF SCREEN ELEVATION (ft, msl): 237.7

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Stick Up: 3.06 ft.
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: Stainless Steel
 SLOT SIZE OF SCREEN: 0.010

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 7.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% silica powder
 QUANTITY OF GROUT: 8-94lb. Bags Type H/4 bags silica
 DEVELOPMENT METHOD: Grundfos
 DATE DEVELOPED: 5/7/2007
 DEPTH TO WATER (ft.btoc): 75.46

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3-ft. by 3-ft.

LENGTH OF RISER (ft): 64

DEPTH TO TOP OF BENTONITE (ft, bgs): 47

DEPTH TO TOP OF SAND PACK (ft, bgs): 53

LENGTH OF SCREEN (ft): 15

LENGTH OF END CAP: (Flush)

TOTAL DEPTH OF WELL (ft, btoc): 79

DEPTH TO TOP OF BACKFILL (ft, bgs): NA

TOTAL DEPTH OF BORING (ft, bgs): 79

Prepared by: WTR

Date: 8/3/2007

Checked by: KS

Date: 8/3/2007



WELL INSTALLATION DIAGRAM

WELL NO.: SVE-A

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/15/2007
 WELL LOCATION: DUNN FIELD

NORTHING: 281623.6
 EASTING: 802283.65
 GROUND SURFACE ELEVATION (ft, msl): 292.2
 TOP OF CASING ELEVATION (ft, msl): 291.2
 TOP OF SCREEN ELEVATION (ft, msl): 260.08

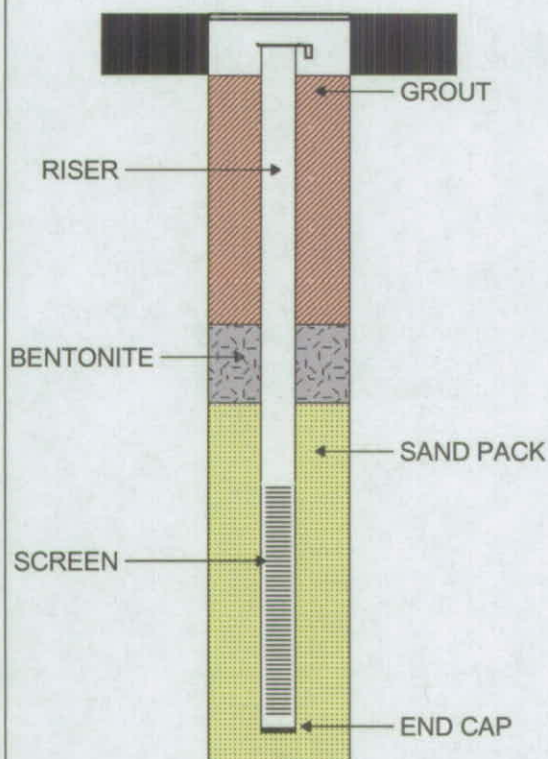
DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Below Surface
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 13.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES:

SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: N/A

LENGTH OF RISER (ft): 29.95

DEPTH TO TOP OF BENTONITE (ft, bgs): 20

DEPTH TO TOP OF SAND PACK (ft, bgs): 26.0

LENGTH OF SCREEN (ft): 30

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 59.95

DEPTH TO TOP OF BACKFILL (ft, bgs): 62

TOTAL DEPTH OF BORING (ft, bgs): 64

Prepared by: WTR

Date: 5/12/2009

Checked by: KS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: SVE-B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/16/2007
 WELL LOCATION: DUNN FIELD

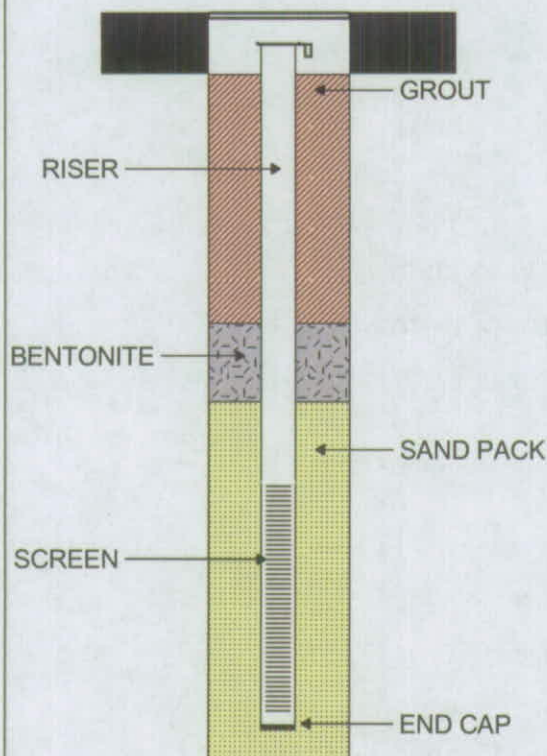
NORTHING: 281610.85
 EASTING: 802183.03
 GROUND SURFACE ELEVATION (ft, msl): 290.62
 TOP OF CASING ELEVATION (ft, msl): 289.3
 TOP OF SCREEN ELEVATION (ft, msl): 259.66

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Below Surface
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 10.75-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES: SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.

Well
Completion
(Not to Scale)



Well
Details

DIMENSIONS OF CONCRETE PAD: N/A

LENGTH OF RISER (ft): 27.53

DEPTH TO TOP OF BENTONITE (ft, bgs): 20

DEPTH TO TOP OF SAND PACK (ft, bgs): 26.0

LENGTH OF SCREEN (ft): 30

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 57.53

DEPTH TO TOP OF BACKFILL (ft, bgs): 61

TOTAL DEPTH OF BORING (ft, bgs): 61

Prepared by: WTR

Date: 5/12/2009

Checked by: KS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: SVE-C

PROJECT: DUNN FIELD SVE
PROJECT NUMBER: 3202-031
SITE LOCATION: DUNN FIELD
e2M PROJECT MANAGER: T. Holmes
e2M FIELD STAFF: J. Anstaett
DATE COMPLETED: 5/30/2007
WELL LOCATION: DUNN FIELD

NORTHING: 281396.01
EASTING: 802107.94
GROUND SURFACE ELEVATION (ft, msl): 298.56
TOP OF CASING ELEVATION (ft, msl): 297.2
TOP OF SCREEN ELEVATION (ft, msl): 264.24

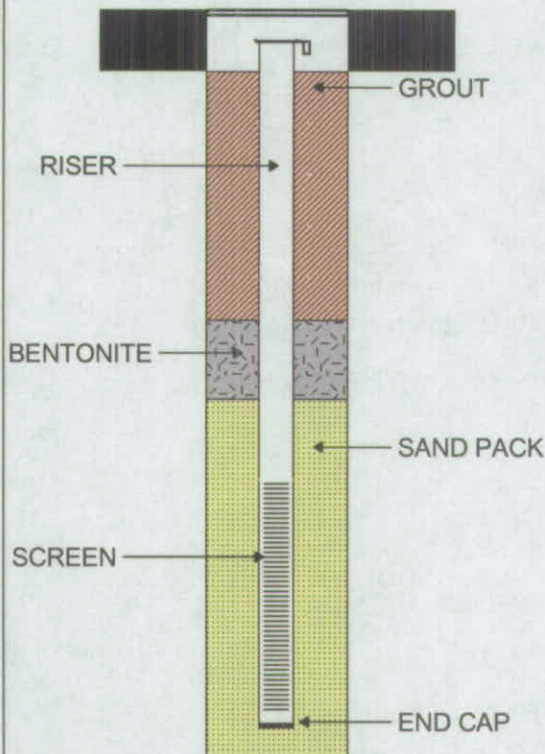
DRILLING CO.: Prosonic
DRILLING METHOD: Sonic
BOREHOLE DIAMETER (in): 6
SURFACE COMPLETION: Below Surface
BOLLARDS: No
WELL DIAMETER (in): 2
TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
GRADATION OF FILTER PACK: 10-20
QUANTITY OF FILTER PACK: 12-50lb. Bags
TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
TYPE OF GROUT: Portland Type H; 30% Silica
QUANTITY OF GROUT: 6-Bags Port./3 Bags Silica
DEVELOPMENT METHOD: N/A
DATE DEVELOPED: N/A
DEPTH TO WATER (ft. btoc): N/A

NOTES:

SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: N/A

LENGTH OF RISER (ft): 29.95

DEPTH TO TOP OF BENTONITE (ft, bgs): 24

DEPTH TO TOP OF SAND PACK (ft, bgs): 30.0

LENGTH OF SCREEN (ft): 35

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 64.95

DEPTH TO TOP OF BACKFILL (ft, bgs): 69

TOTAL DEPTH OF BORING (ft, bgs): 70

Prepared by: WTR

Date: 5/12/2009

Checked by: KS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: SVE-D

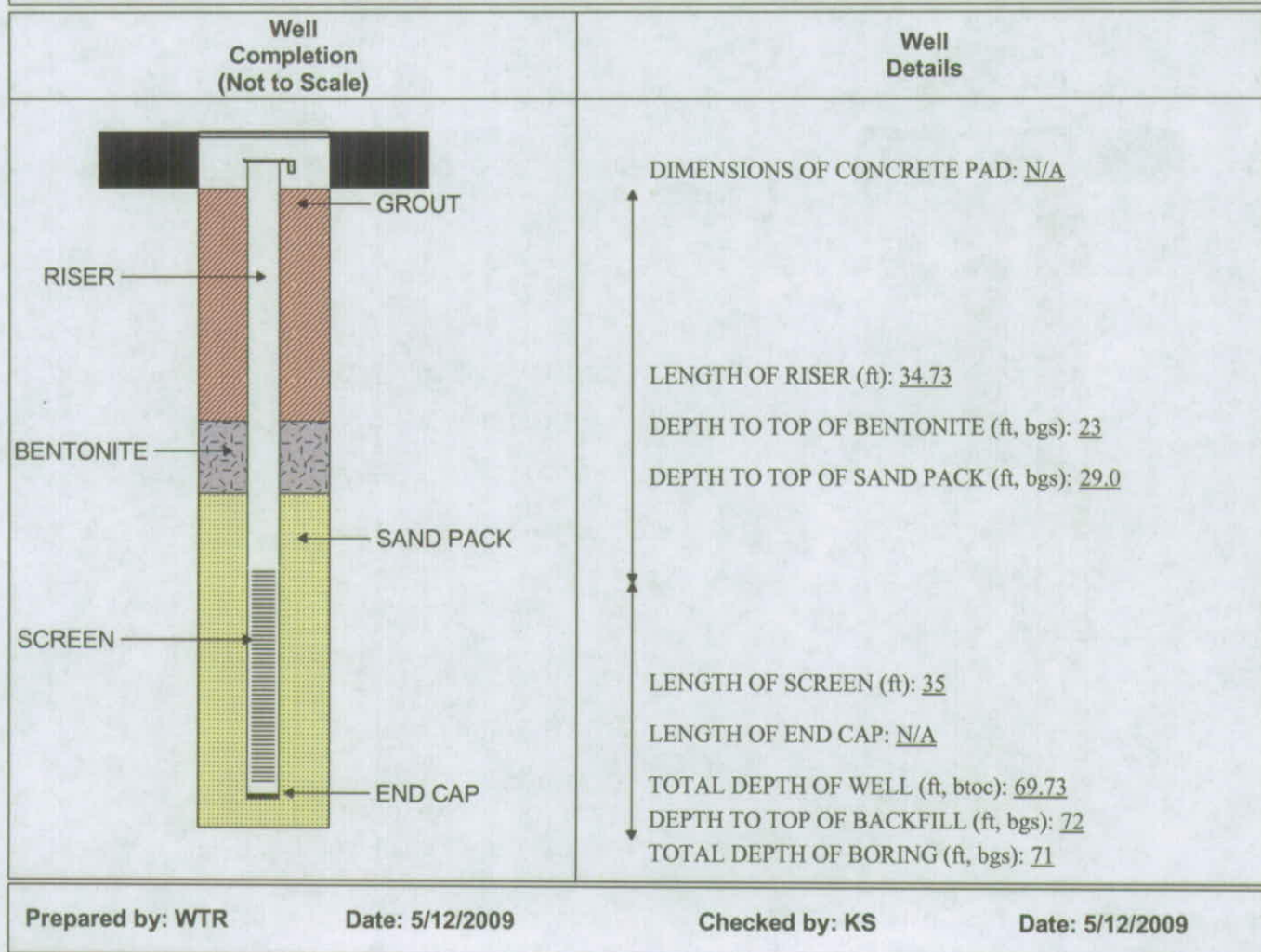
PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/23/2007
 WELL LOCATION: DUNN FIELD

NORTHING: 281000.25
 EASTING: 802170.42
 GROUND SURFACE ELEVATION (ft, msl): 301.41
 TOP OF CASING ELEVATION (ft, msl): 300.10
 TOP OF SCREEN ELEVATION (ft, msl): 264.68

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Below Surface
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 14-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES: SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.





WELL INSTALLATION DIAGRAM

WELL NO.: SVE-E

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/1/2007
 WELL LOCATION: DUNN FIELD

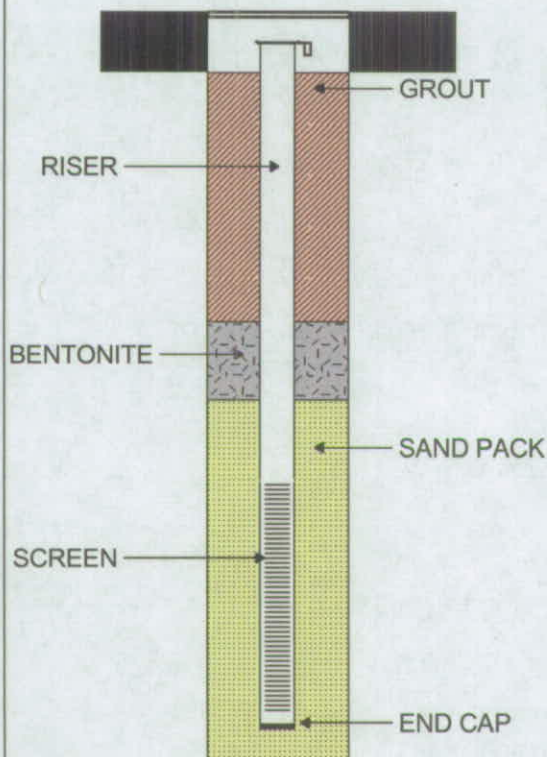
NORTHING: 280923.05
 EASTING: 802124.23
 GROUND SURFACE ELEVATION (ft, msl): 300.48
 TOP OF CASING ELEVATION (ft, msl): 299.10
 TOP OF SCREEN ELEVATION (ft, msl): 265.74

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Below Surface
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 14-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES:
 SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: N/A

LENGTH OF RISER (ft): 30.76
 DEPTH TO TOP OF BENTONITE (ft, bgs): 26
 DEPTH TO TOP OF SAND PACK (ft, bgs): 30.8

LENGTH OF SCREEN (ft): 35
 LENGTH OF END CAP: N/A
 TOTAL DEPTH OF WELL (ft, btoc): 65.76
 DEPTH TO TOP OF BACKFILL (ft, bgs): 70
 TOTAL DEPTH OF BORING (ft, bgs): 71

Prepared by: WTR

Date: 5/12/2009

Checked by: KS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: SVE-F

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/5/2007
 WELL LOCATION: DUNN FIELD

NORTHING: 280589.08
 EASTING: 802211.52
 GROUND SURFACE ELEVATION (ft, msl): 293.37
 TOP OF CASING ELEVATION (ft, msl): 292.9
 TOP OF SCREEN ELEVATION (ft, msl): 265.15

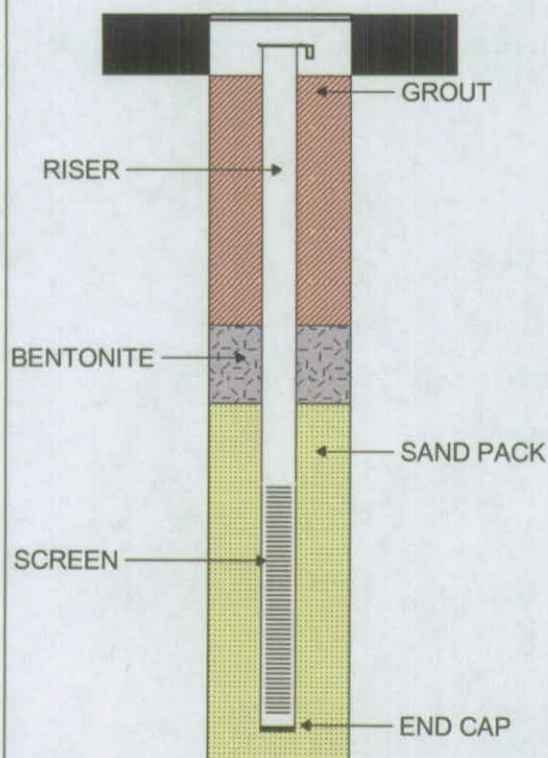
DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Below Surface
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 11-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: N/A

LENGTH OF RISER (ft): 26.14

DEPTH TO TOP OF BENTONITE (ft, bgs): 17

DEPTH TO TOP OF SAND PACK (ft, bgs): 23.3

LENGTH OF SCREEN (ft): 35

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 61.14

DEPTH TO TOP OF BACKFILL (ft, bgs): 63

TOTAL DEPTH OF BORING (ft, bgs): 63.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: SVE-G

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/6/2007
 WELL LOCATION: DUNN FIELD

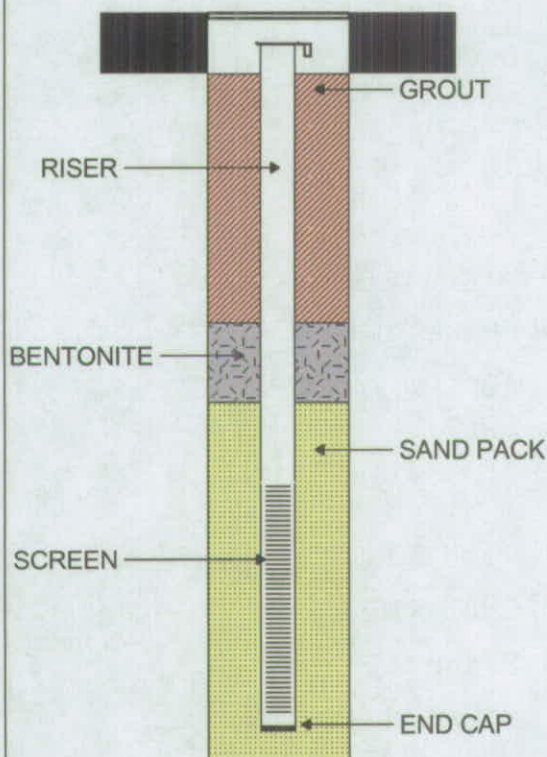
NORTHING: 280234.35
 EASTING: 802146.51
 GROUND SURFACE ELEVATION (ft, msl): 298.15
 TOP OF CASING ELEVATION (ft, msl): 296.90
 TOP OF SCREEN ELEVATION (ft, msl): 264.54

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: Below Surface
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 23-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES: SVE wellhead completed approximately two feet bgs with transition fitting to conveyance line.

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: N/A

LENGTH OF RISER (ft): 31.49
 DEPTH TO TOP OF BENTONITE (ft, bgs): 23
 DEPTH TO TOP OF SAND PACK (ft, bgs): 28.6

LENGTH OF SCREEN (ft): 35
 LENGTH OF END CAP: N/A
 TOTAL DEPTH OF WELL (ft, btoc): 66.49
 DEPTH TO TOP OF BACKFILL (ft, bgs): 69
 TOTAL DEPTH OF BORING (ft, bgs): 70

Prepared by: WTR

Date: 5/12/2009

Checked by: KS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-1A

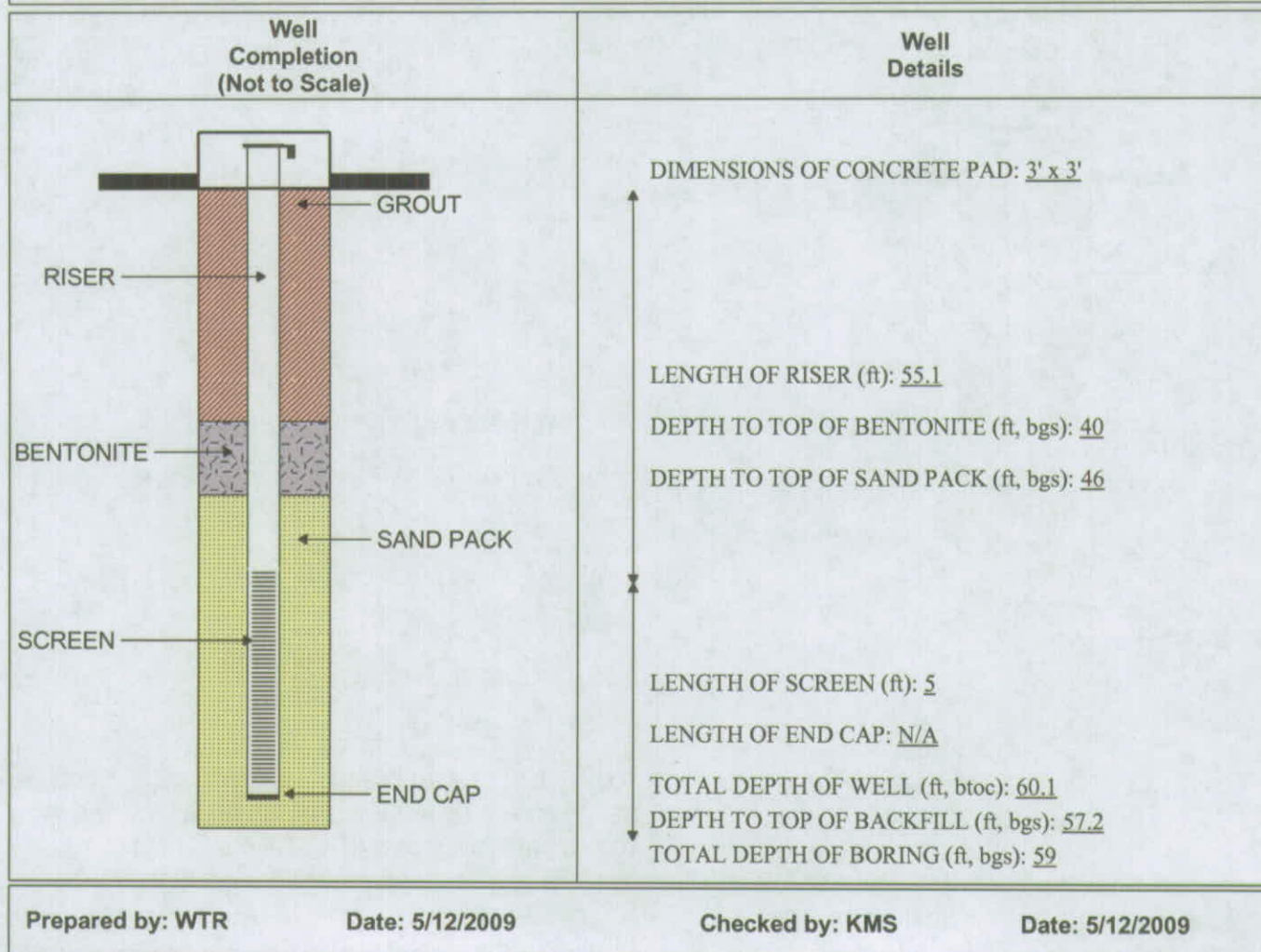
PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/15/07
 WELL LOCATION: DUNN FIELD

NORTHING: 281609.54
 EASTING: 802278.24
 GROUND SURFACE ELEVATION (ft, msl): 292.51
 TOP OF CASING ELEVATION (ft, msl): 295.37
 TOP OF SCREEN ELEVATION (ft, msl): 240.36

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.9 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:





WELL INSTALLATION DIAGRAM

WELL NO.: VP-1B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/20/07
 WELL LOCATION: DUNN FIELD

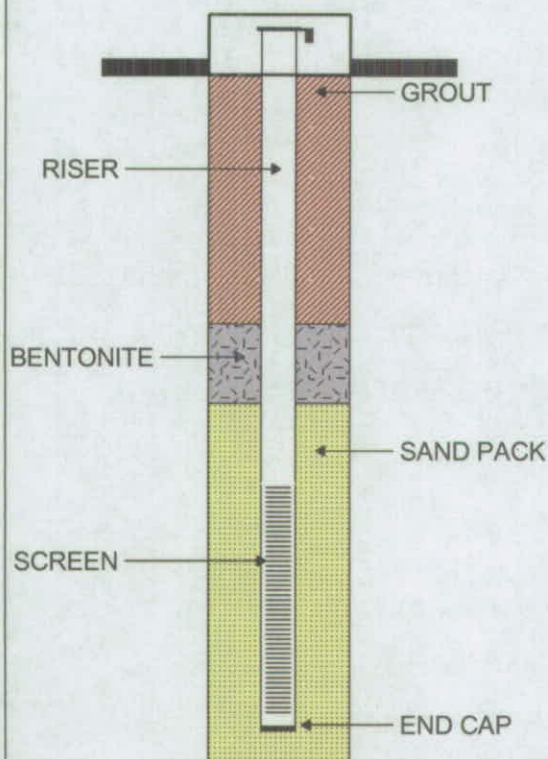
NORTHING: 281605.5
 EASTING: 802272.92
 GROUND SURFACE ELEVATION (ft, msl): 292.51
 TOP OF CASING ELEVATION (ft, msl): 295.4
 TOP OF SCREEN ELEVATION (ft, msl): 255.28

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.9 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 3.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 40.1

DEPTH TO TOP OF BENTONITE (ft, bgs): 26

DEPTH TO TOP OF SAND PACK (ft, bgs): 32

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 45.1

DEPTH TO TOP OF BACKFILL (ft, bgs): 42.3

TOTAL DEPTH OF BORING (ft, bgs): 42.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-2A

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/17/07
 WELL LOCATION: DUNN FIELD

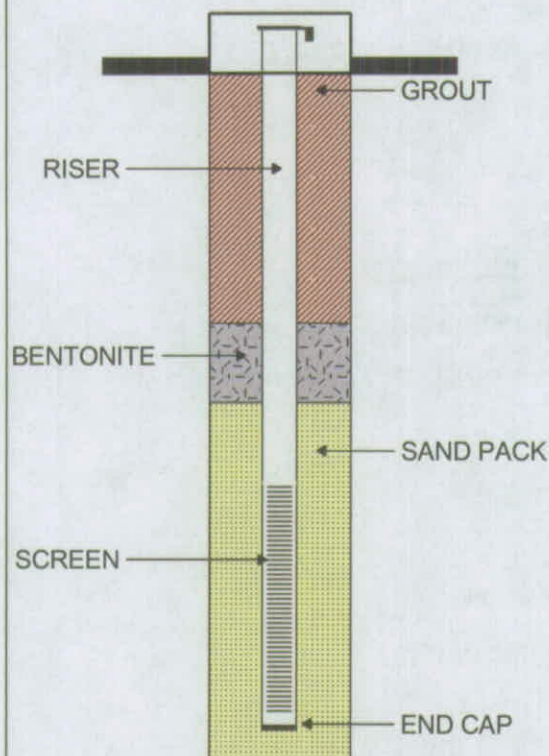
NORTHING: 281632.74
 EASTING: 802161.54
 GROUND SURFACE ELEVATION (ft, msl): 289.64
 TOP OF CASING ELEVATION (ft, msl): 292.39
 TOP OF SCREEN ELEVATION (ft, msl): 239.54

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.8 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 52.9

DEPTH TO TOP OF BENTONITE (ft, bgs): 38

DEPTH TO TOP OF SAND PACK (ft, bgs): 44

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 57.9

DEPTH TO TOP OF BACKFILL (ft, bgs): 55.1

TOTAL DEPTH OF BORING (ft, bgs): 60

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-2B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/20/07
 WELL LOCATION: DUNN FIELD

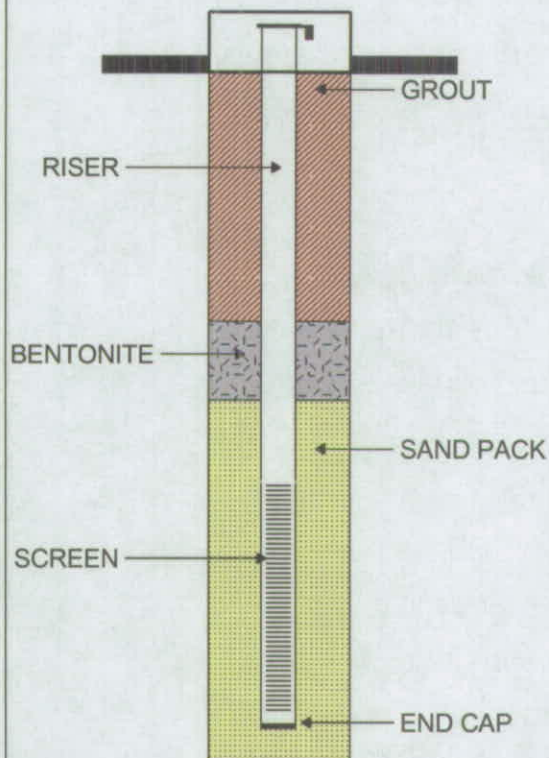
NORTHING: 281638.81
 EASTING: 802158.09
 GROUND SURFACE ELEVATION (ft, msl): 289.35
 TOP OF CASING ELEVATION (ft, msl): 292.78
 TOP OF SCREEN ELEVATION (ft, msl): 254.37

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 3.4 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

Well
Completion
(Not to Scale)



Well
Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 38.3

DEPTH TO TOP OF BENTONITE (ft, bgs): 23

DEPTH TO TOP OF SAND PACK (ft, bgs): 29

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 43.3

DEPTH TO TOP OF BACKFILL (ft, bgs): 40

TOTAL DEPTH OF BORING (ft, bgs): 41.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-3A

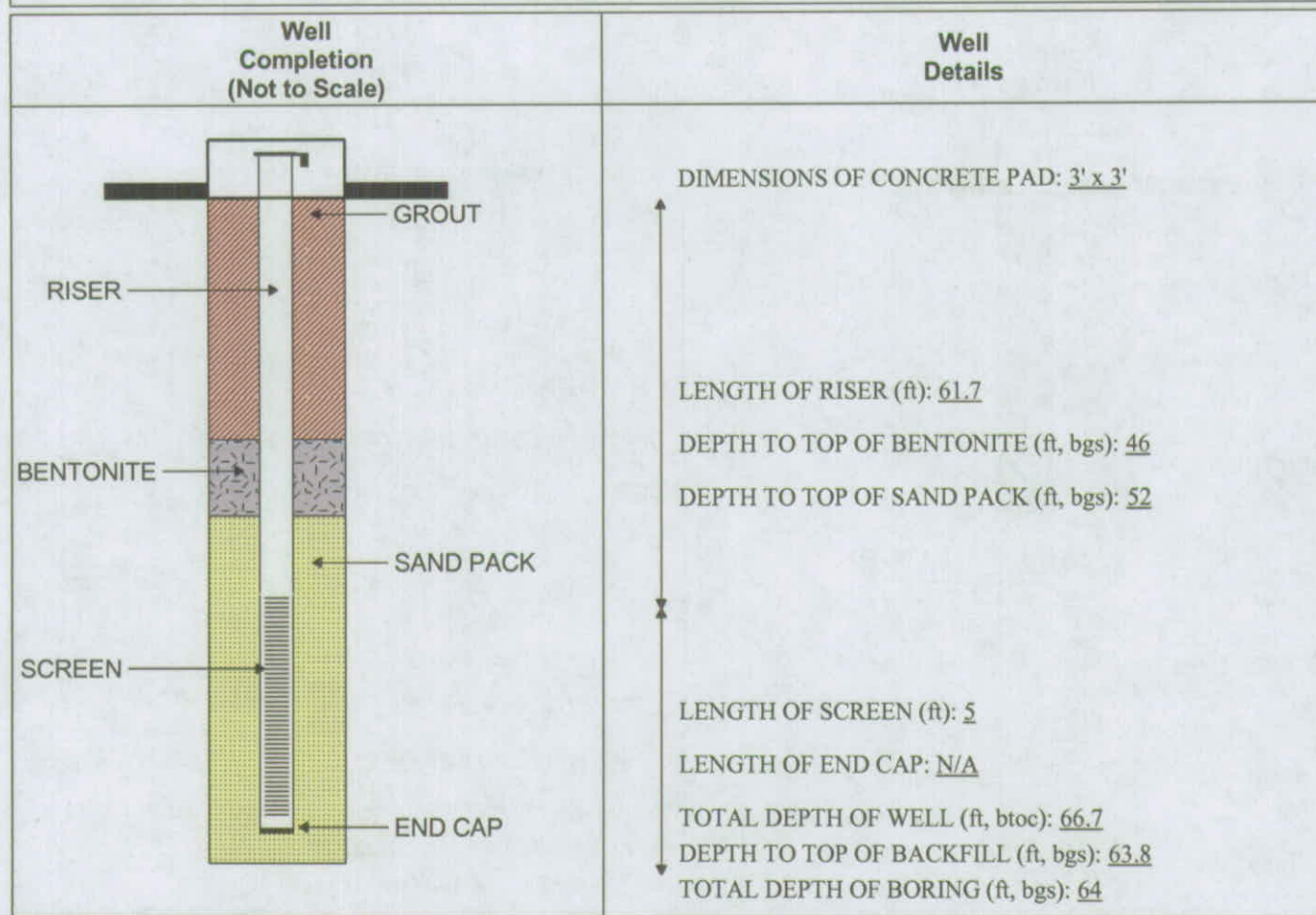
PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/18/07
 WELL LOCATION: DUNN FIELD

NORTHING: 281416.07
 EASTING: 802084.73
 GROUND SURFACE ELEVATION (ft, msl): 297.54
 TOP OF CASING ELEVATION (ft, msl): 300.58
 TOP OF SCREEN ELEVATION (ft, msl): 238.81

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 3.0 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 2.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:



Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-3B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/20/07
 WELL LOCATION: DUNN FIELD

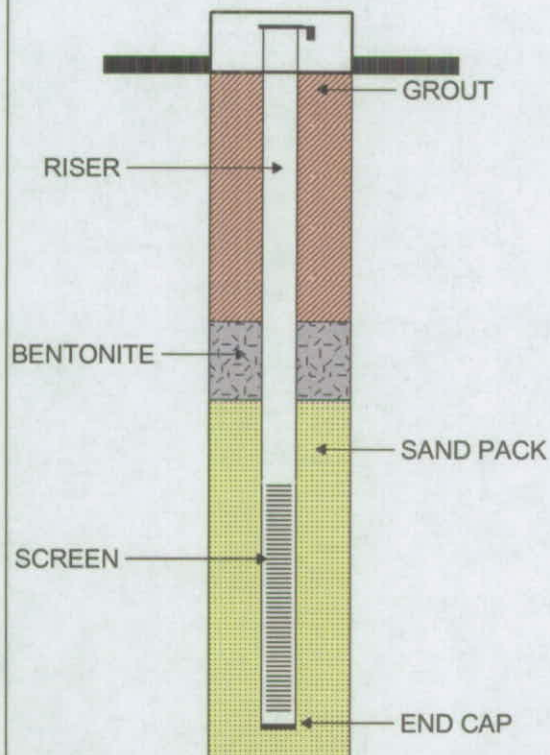
NORTHING: 281415.19
 EASTING: 802091.11
 GROUND SURFACE ELEVATION (ft, msl): 297.83
 TOP OF CASING ELEVATION (ft, msl): 300.86
 TOP OF SCREEN ELEVATION (ft, msl): 258.42

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 3.0 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

**Well Completion
(Not to Scale)**



Well Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 42.4

DEPTH TO TOP OF BENTONITE (ft, bgs): 27

DEPTH TO TOP OF SAND PACK (ft, bgs): 33

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 47.4

DEPTH TO TOP OF BACKFILL (ft, bgs): 44.4

TOTAL DEPTH OF BORING (ft, bgs): 46

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-4A

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/18/07
 WELL LOCATION: DUNN FIELD

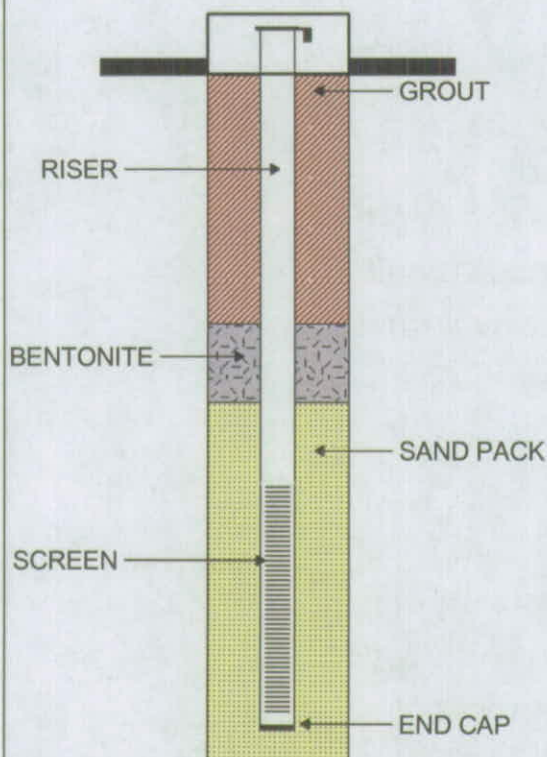
NORTHING: 281340.29
 EASTING: 802130.17
 GROUND SURFACE ELEVATION (ft, msl): 299.3
 TOP OF CASING ELEVATION (ft, msl): 302.09
 TOP OF SCREEN ELEVATION (ft, msl): 239.66

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.8 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 62.4

DEPTH TO TOP OF BENTONITE (ft, bgs): 48

DEPTH TO TOP OF SAND PACK (ft, bgs): 54

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 67.4

DEPTH TO TOP OF BACKFILL (ft, bgs): 64.7

TOTAL DEPTH OF BORING (ft, bgs): 66

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009

**WELL INSTALLATION DIAGRAM****WELL NO.: VP-4B**

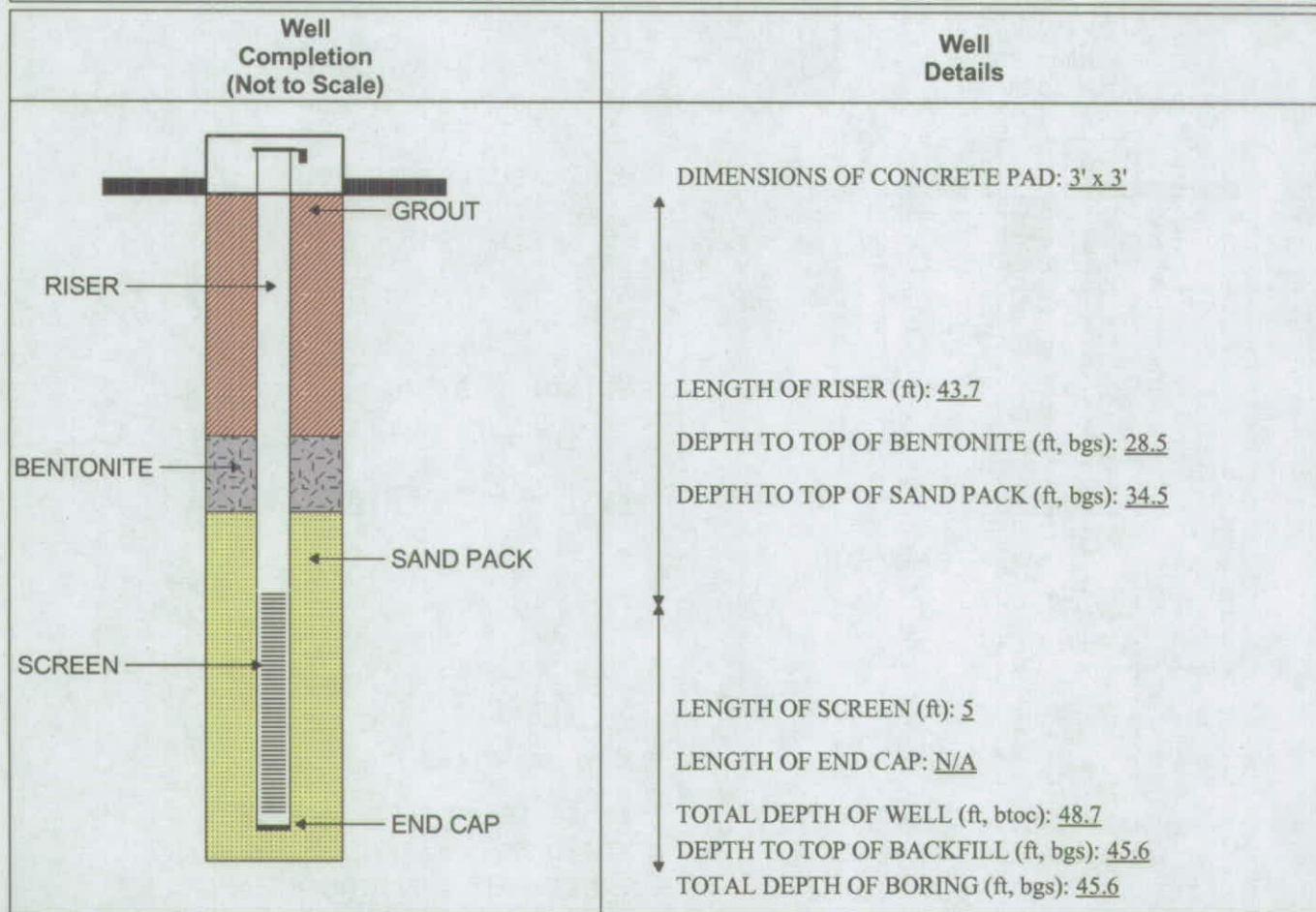
PROJECT: DUNN FIELD SVE
PROJECT NUMBER: 3202-031
SITE LOCATION: DUNN FIELD
e2M PROJECT MANAGER: T. Holmes
e2M FIELD STAFF: J. Anstaett
DATE COMPLETED: 6/2/07
WELL LOCATION: DUNN FIELD

NORTHING: 281339.02
EASTING: 802125.13
GROUND SURFACE ELEVATION (ft, msl): 299.36
TOP OF CASING ELEVATION (ft, msl): 302.43
TOP OF SCREEN ELEVATION (ft, msl): 264.86

DRILLING CO.: Prosonic
DRILLING METHOD: Sonic
BOREHOLE DIAMETER (in): 6
SURFACE COMPLETION: 3.1 -ft. Above Ground
BOLLARDS: No
WELL DIAMETER (in): 2
TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
GRADATION OF FILTER PACK: 10-20
QUANTITY OF FILTER PACK: 6-50lb. Bags
TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
TYPE OF GROUT: Portland Type H; 30% Silica
QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
DEVELOPMENT METHOD: N/A
DATE DEVELOPED: N/A
DEPTH TO WATER (ft. btoc): N/A

NOTES:



Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-5A

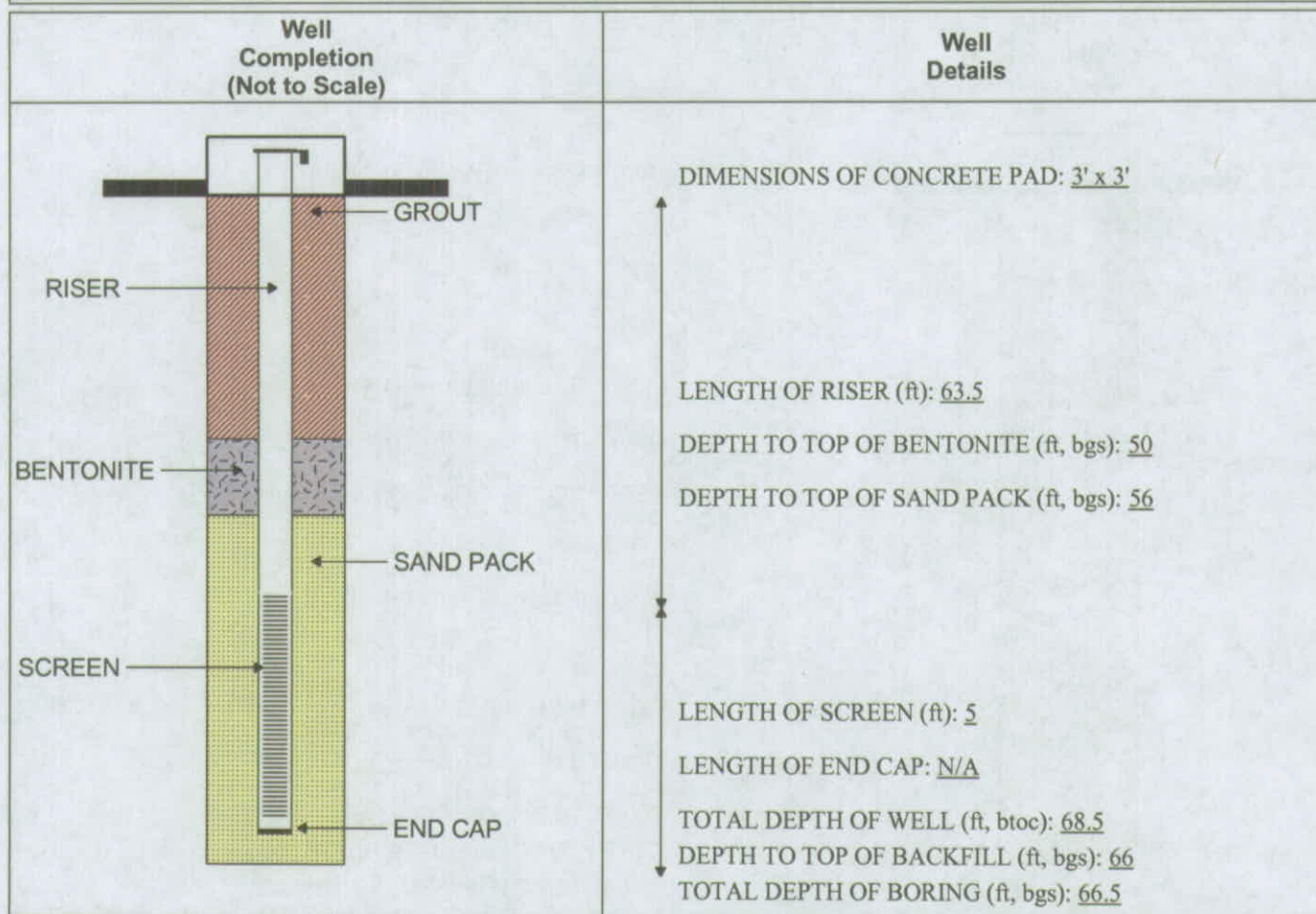
PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/21/07
 WELL LOCATION: DUNN FIELD

NORTHING: 281002.15
 EASTING: 802139.49
 GROUND SURFACE ELEVATION (ft, msl): 301.42
 TOP OF CASING ELEVATION (ft, msl): 303.97
 TOP OF SCREEN ELEVATION (ft, msl): 240.45

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.6 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:



Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009

**WELL INSTALLATION DIAGRAM****WELL NO.: VP-5B**

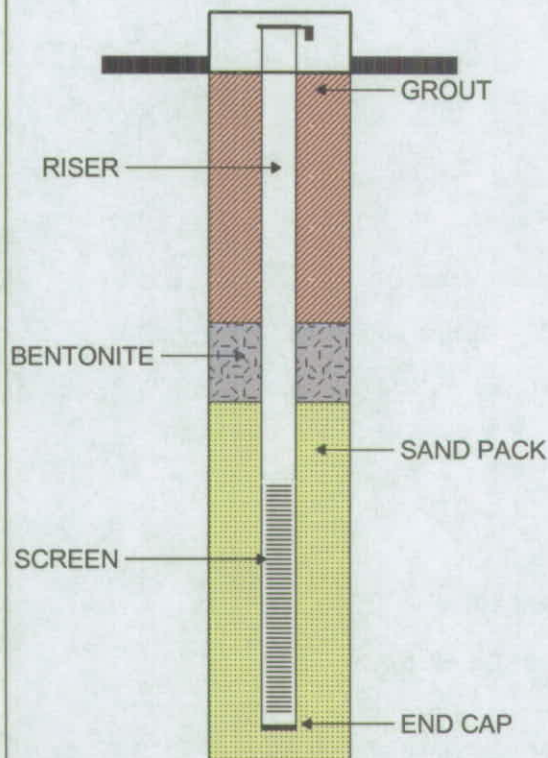
PROJECT: DUNN FIELD SVE
PROJECT NUMBER: 3202-031
SITE LOCATION: DUNN FIELD
e2M PROJECT MANAGER: T. Holmes
e2M FIELD STAFF: J. Anstaett
DATE COMPLETED: 6/2/07
WELL LOCATION: DUNN FIELD

NORTHING: 280999.23
EASTING: 802139.39
GROUND SURFACE ELEVATION (ft, msl): 301.33
TOP OF CASING ELEVATION (ft, msl): 304.13
TOP OF SCREEN ELEVATION (ft, msl): 260.13

DRILLING CO.: Prosonic
DRILLING METHOD: Sonic
BOREHOLE DIAMETER (in): 6
SURFACE COMPLETION: 2.8 -ft. Above Ground
BOLLARDS: No
WELL DIAMETER (in): 2
TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
GRADATION OF FILTER PACK: 10-20
QUANTITY OF FILTER PACK: 4-50lb. Bags
TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
TYPE OF GROUT: Portland Type H; 30% Silica
QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
DEVELOPMENT METHOD: N/A
DATE DEVELOPED: N/A
DEPTH TO WATER (ft, btoc): N/A

NOTES:

**Well
Completion
(Not to Scale)****Well
Details**DIMENSIONS OF CONCRETE PAD: 3' x 3'LENGTH OF RISER (ft): 43.5DEPTH TO TOP OF BENTONITE (ft, bgs): 29.5DEPTH TO TOP OF SAND PACK (ft, bgs): 34.5LENGTH OF SCREEN (ft): 5LENGTH OF END CAP: N/ATOTAL DEPTH OF WELL (ft, btoc): 48.5DEPTH TO TOP OF BACKFILL (ft, bgs): 46.2TOTAL DEPTH OF BORING (ft, bgs): 46

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-6A

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 5/22/07
 WELL LOCATION: DUNN FIELD

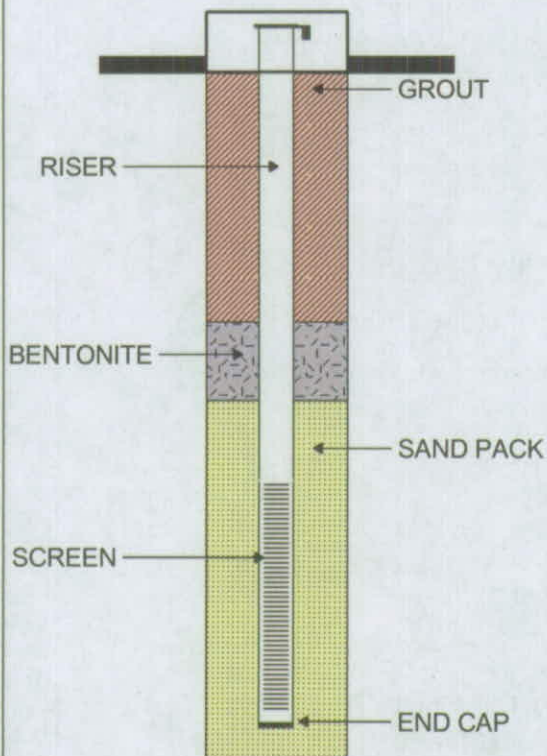
NORTHING: 280961.45
 EASTING: 802147.72
 GROUND SURFACE ELEVATION (ft, msl): 300.83
 TOP OF CASING ELEVATION (ft, msl): 303.96
 TOP OF SCREEN ELEVATION (ft, msl): 241.69

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 3.1 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 62.2

DEPTH TO TOP OF BENTONITE (ft, bgs): 47

DEPTH TO TOP OF SAND PACK (ft, bgs): 53

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 67.2

DEPTH TO TOP OF BACKFILL (ft, bgs): 64.2

TOTAL DEPTH OF BORING (ft, bgs): 66.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-6B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/3/07
 WELL LOCATION: DUNN FIELD

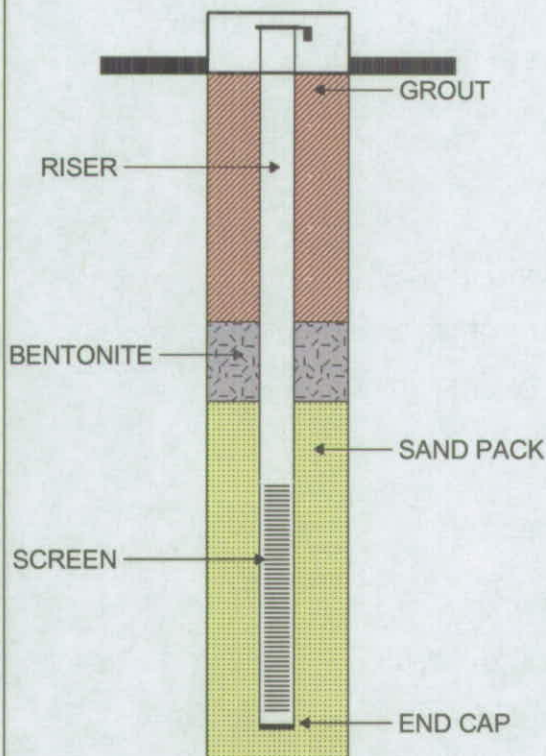
NORTHING: 280959.26
 EASTING: 802151.02
 GROUND SURFACE ELEVATION (ft, msl): 300.58
 TOP OF CASING ELEVATION (ft, msl): 303.33
 TOP OF SCREEN ELEVATION (ft, msl): 259.93

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.8 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES:

Well
Completion
(Not to Scale)



Well
Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 43.5

DEPTH TO TOP OF BENTONITE (ft, bgs): 30.5

DEPTH TO TOP OF SAND PACK (ft, bgs): 35.5

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 48.5

DEPTH TO TOP OF BACKFILL (ft, bgs): 45.7

TOTAL DEPTH OF BORING (ft, bgs): 45.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-7A

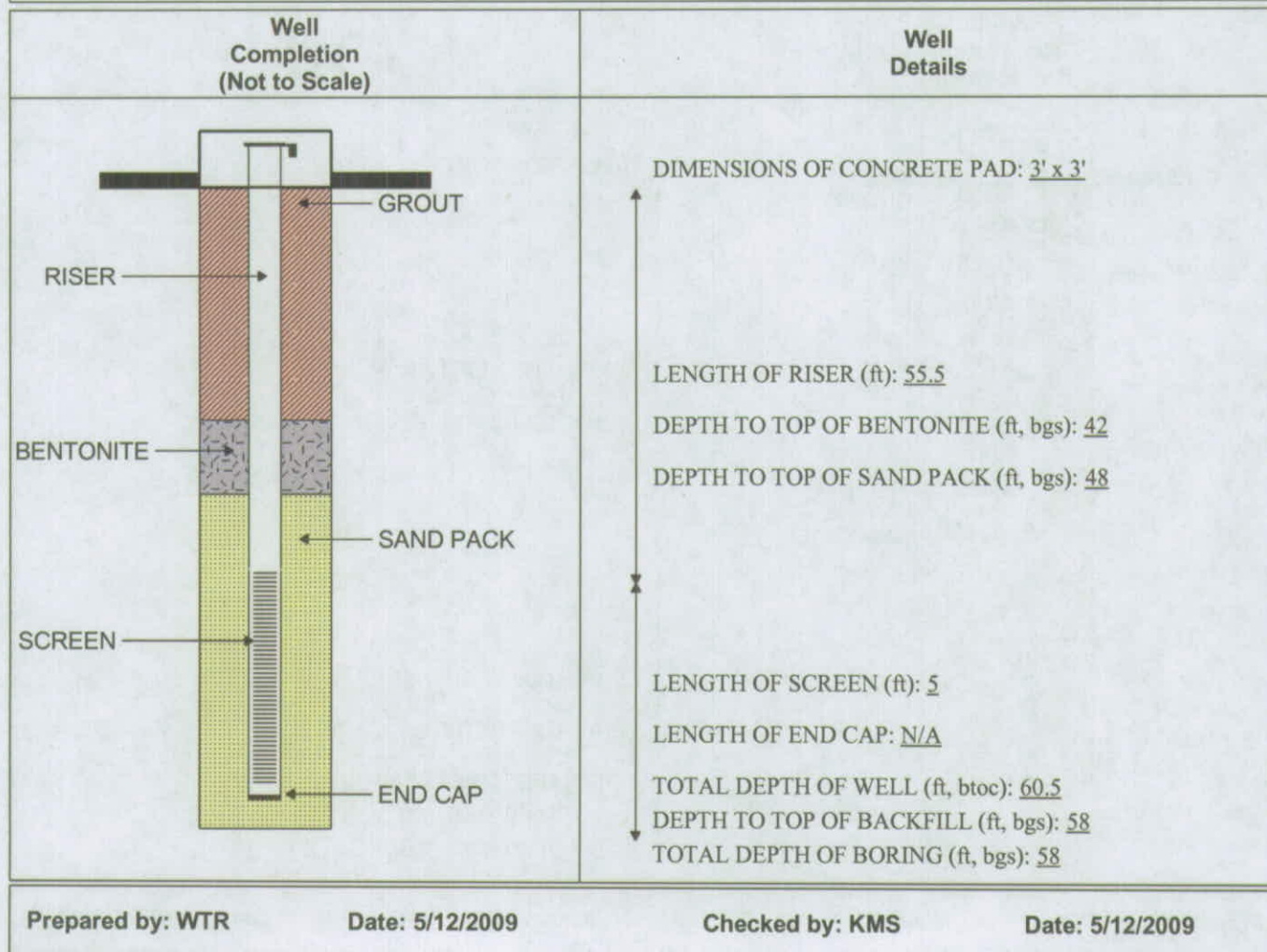
PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/11/07
 WELL LOCATION: DUNN FIELD

NORTHING: 280601.89
 EASTING: 802203.16
 GROUND SURFACE ELEVATION (ft, msl): 293.34
 TOP OF CASING ELEVATION (ft, msl): 295.9
 TOP OF SCREEN ELEVATION (ft, msl): 240.35

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.6 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:



1000394



WELL INSTALLATION DIAGRAM

WELL NO.: VP-7B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/15/07
 WELL LOCATION: DUNN FIELD

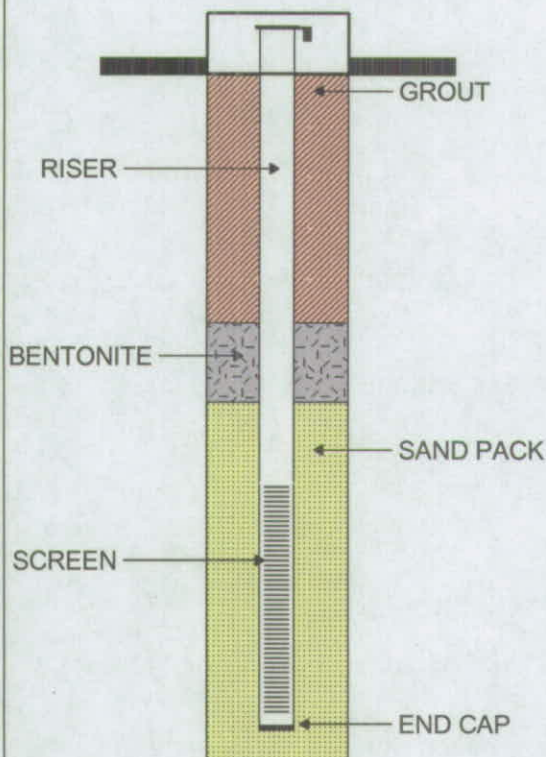
NORTHING: 280603.13
 EASTING: 802205.63
 GROUND SURFACE ELEVATION (ft, msl): 293.49
 TOP OF CASING ELEVATION (ft, msl): 296.08
 TOP OF SCREEN ELEVATION (ft, msl): 261.24

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.6 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 34.8

DEPTH TO TOP OF BENTONITE (ft, bgs): 20

DEPTH TO TOP OF SAND PACK (ft, bgs): 26

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 39.8

DEPTH TO TOP OF BACKFILL (ft, bgs): 37.3

TOTAL DEPTH OF BORING (ft, bgs): 38

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-8A

PROJECT: DUNN FIELD.SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/12/07
 WELL LOCATION: DUNN FIELD

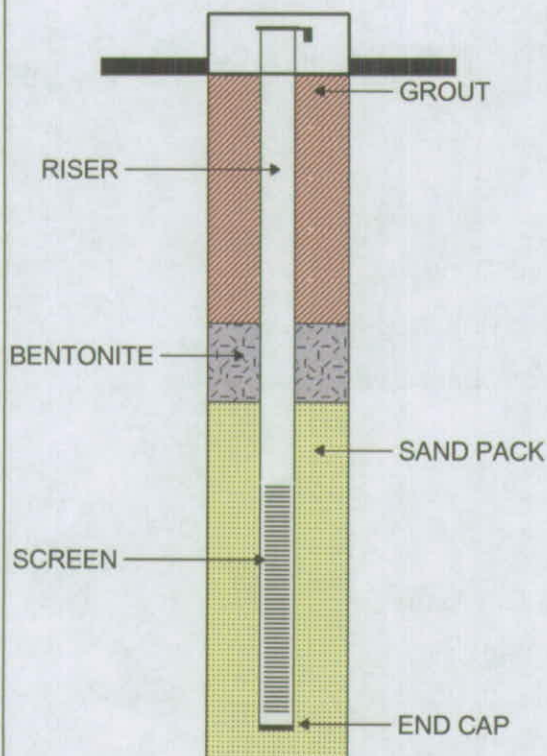
NORTHING: 280576.99
 EASTING: 802291.02
 GROUND SURFACE ELEVATION (ft, msl): 301.42
 TOP OF CASING ELEVATION (ft, msl): 304.08
 TOP OF SCREEN ELEVATION (ft, msl): 239.76

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.7 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 6-Bags Port./3 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 64.4

DEPTH TO TOP OF BENTONITE (ft, bgs): 50.3

DEPTH TO TOP OF SAND PACK (ft, bgs): 56.3

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 69.4

DEPTH TO TOP OF BACKFILL (ft, bgs): 66.7

TOTAL DEPTH OF BORING (ft, bgs): 67

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-8B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/15/07
 WELL LOCATION: DUNN FIELD

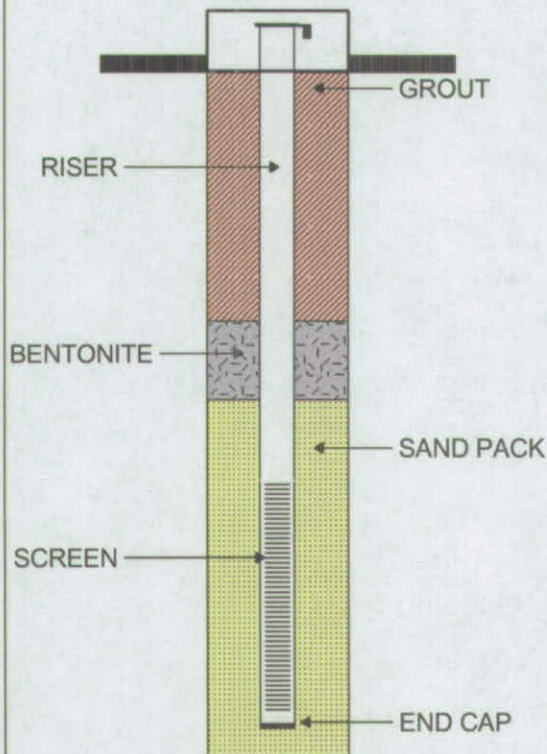
NORTHING: 280572.95
 EASTING: 802290.05
 GROUND SURFACE ELEVATION (ft, msl): 301.46
 TOP OF CASING ELEVATION (ft, msl): 304.02
 TOP OF SCREEN ELEVATION (ft, msl): 259.88

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.6 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft. btoc): N/A

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 44.2

DEPTH TO TOP OF BENTONITE (ft, bgs): 30

DEPTH TO TOP OF SAND PACK (ft, bgs): 36

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 49.2

DEPTH TO TOP OF BACKFILL (ft, bgs): 45.5

TOTAL DEPTH OF BORING (ft, bgs): 46.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-9A

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/13/07
 WELL LOCATION: DUNN FIELD

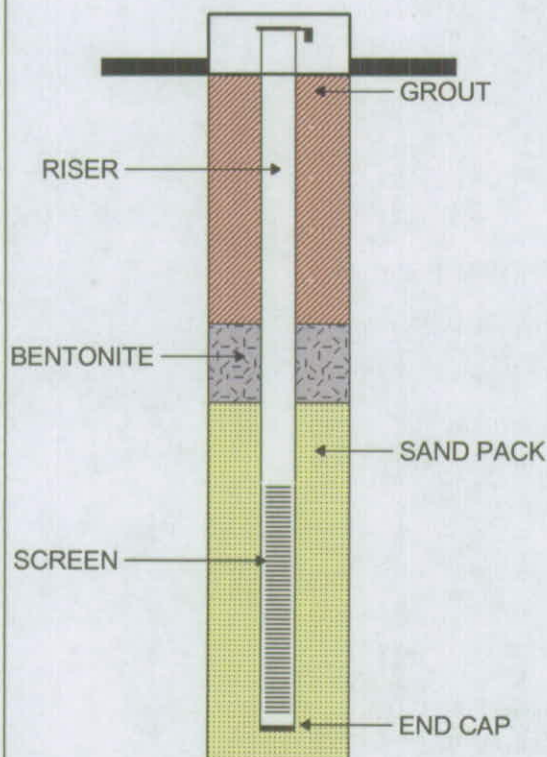
NORTHING: 280256.36
 EASTING: 802107.04
 GROUND SURFACE ELEVATION (ft, msl): 297.19
 TOP OF CASING ELEVATION (ft, msl): 300.01
 TOP OF SCREEN ELEVATION (ft, msl): 239.9

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.8 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 3.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

**Well
Completion
(Not to Scale)**



**Well
Details**

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 60.1

DEPTH TO TOP OF BENTONITE (ft, bgs): 46

DEPTH TO TOP OF SAND PACK (ft, bgs): 52

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 65.1

DEPTH TO TOP OF BACKFILL (ft, bgs): 62.3

TOTAL DEPTH OF BORING (ft, bgs): 63

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-9B

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/14/07
 WELL LOCATION: DUNN FIELD

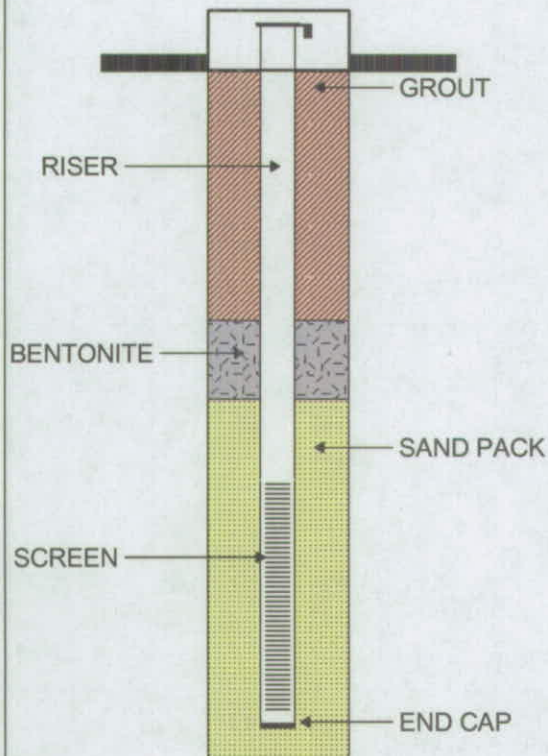
NORTHING: 280259.62
 EASTING: 802109.06
 GROUND SURFACE ELEVATION (ft, msl): 297.47
 TOP OF CASING ELEVATION (ft, msl): 299.85
 TOP OF SCREEN ELEVATION (ft, msl): 260.01

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.4 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 4-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES:

Well Completion (Not to Scale)



Well Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 39.9

DEPTH TO TOP OF BENTONITE (ft, bgs): 25

DEPTH TO TOP OF SAND PACK (ft, bgs): 31

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 44.9

DEPTH TO TOP OF BACKFILL (ft, bgs): 42.5

TOTAL DEPTH OF BORING (ft, bgs): 42.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-10A

PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/13/07
 WELL LOCATION: DUNN FIELD

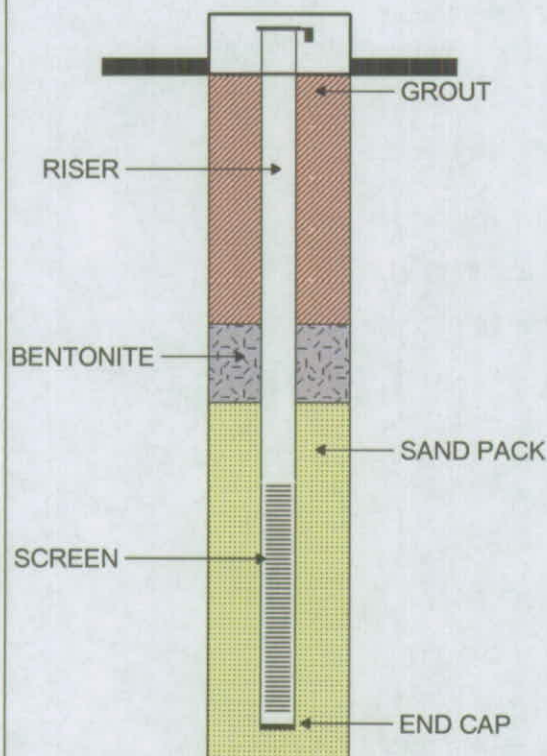
NORTHING: 280225.69
 EASTING: 802205.96
 GROUND SURFACE ELEVATION (ft, msl): 300.15
 TOP OF CASING ELEVATION (ft, msl): 302.94
 TOP OF SCREEN ELEVATION (ft, msl): 239.78

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.8 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 2.5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 4-Bags Port./2 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft.btoc): N/A

NOTES:

Well
Completion
(Not to Scale)



Well
Details

DIMENSIONS OF CONCRETE PAD: 3' x 3'

LENGTH OF RISER (ft): 63.2

DEPTH TO TOP OF BENTONITE (ft, bgs): 48.5

DEPTH TO TOP OF SAND PACK (ft, bgs): 54

LENGTH OF SCREEN (ft): 5

LENGTH OF END CAP: N/A

TOTAL DEPTH OF WELL (ft, btoc): 68.2

DEPTH TO TOP OF BACKFILL (ft, bgs): 65.4

TOTAL DEPTH OF BORING (ft, bgs): 65.5

Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009



WELL INSTALLATION DIAGRAM

WELL NO.: VP-10B

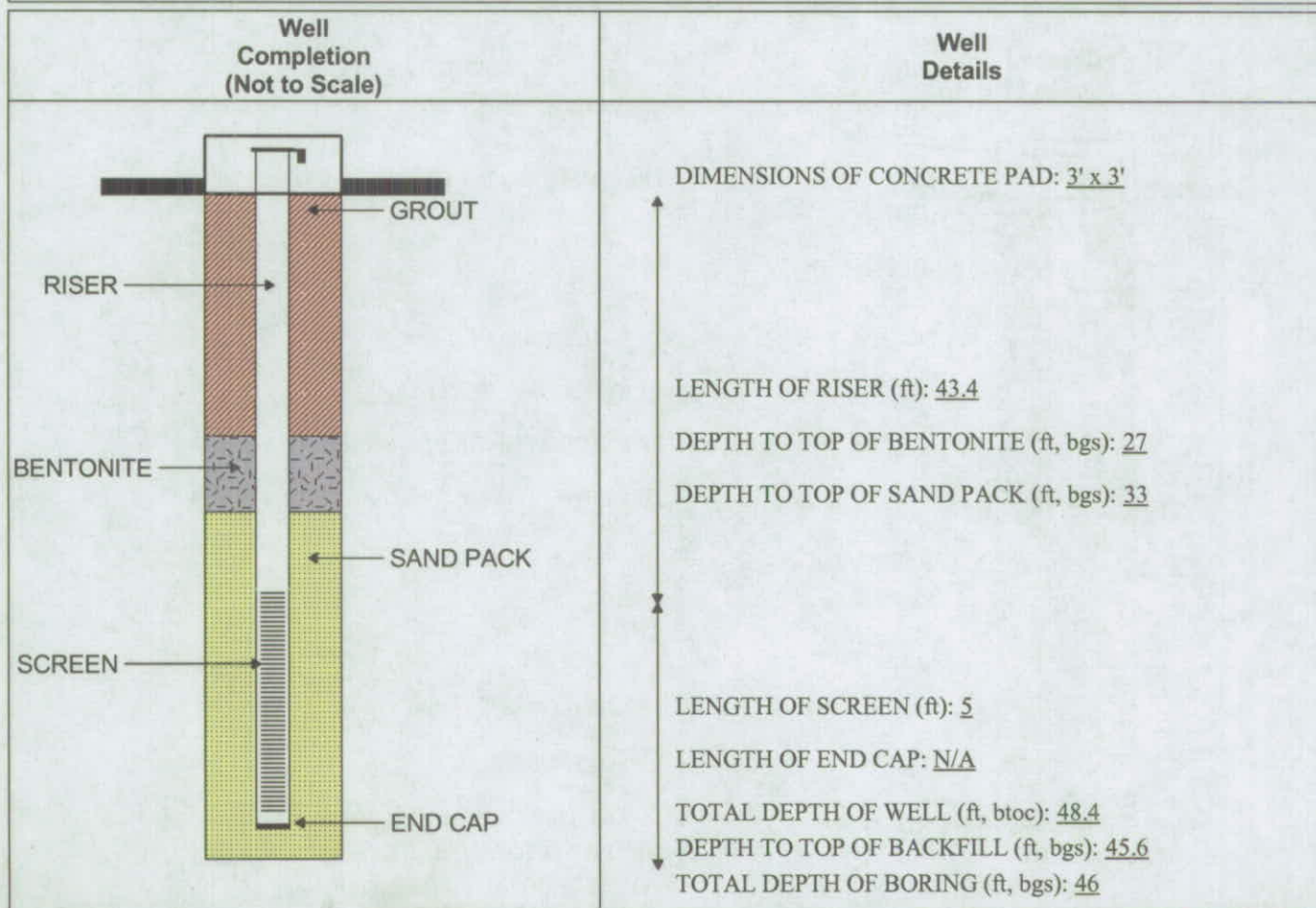
PROJECT: DUNN FIELD SVE
 PROJECT NUMBER: 3202-031
 SITE LOCATION: DUNN FIELD
 e2M PROJECT MANAGER: T. Holmes
 e2M FIELD STAFF: J. Anstaett
 DATE COMPLETED: 6/15/07
 WELL LOCATION: DUNN FIELD

NORTHING: 280229.02
 EASTING: 802206.77
 GROUND SURFACE ELEVATION (ft, msl): 300.13
 TOP OF CASING ELEVATION (ft, msl): 302.94
 TOP OF SCREEN ELEVATION (ft, msl): 259.55

DRILLING CO.: Prosonic
 DRILLING METHOD: Sonic
 BOREHOLE DIAMETER (in): 6
 SURFACE COMPLETION: 2.8 -ft. Above Ground
 BOLLARDS: No
 WELL DIAMETER (in): 2
 TYPE OF SCREEN/RISER MATERIAL: 2-in. Stainless Steel
 SLOT SIZE OF SCREEN: 0.006

TYPE OF FILTER PACK: Sand
 GRADATION OF FILTER PACK: 10-20
 QUANTITY OF FILTER PACK: 5-50lb. Bags
 TYPE OF BENTONITE IN SEAL: 3/8" Shur Plug Chips
 QUANTITY OF BENTONITE IN SEAL: 2-50lb. Bags
 TYPE OF GROUT: Portland Type H; 30% Silica
 QUANTITY OF GROUT: 2-Bags Port./1 Bags Silica
 DEVELOPMENT METHOD: N/A
 DATE DEVELOPED: N/A
 DEPTH TO WATER (ft, btoc): N/A

NOTES:



Prepared by: WTR

Date: 5/12/2009

Checked by: KMS

Date: 5/12/2009

*Source Areas Interim Remedial Action Completion Report
Defense Depot Memphis, Tennessee*

*September 2009
Revision 1*

APPENDIX C

WASTE WATER DISCHARGE REQUESTS



DR. WILLIE W. HERENTON - Mayor
KEITH L. McGEE - Chief Administrative Officer
DIVISION OF PUBLIC WORKS
JERRY R. COLLINS JR. - Director
Maynard C. Stiles Wastewater Treatment Plant

Friday, September 07, 2007

Mr. Thomas Holmes
Project Manager
Engineering Environmental Management
P.O. Box 191253
Atlanta, Georgia 31119-1253

RE: Request an approval to discharge condensate
Industrial Wastewater Discharge Agreement Permit # S-NN3-097
DES-DDC-EE (Memphis) @ 2163 Airways Blvd., Memphis, Tennessee

Dear Mr. Holmes:

This letter is in reference to your letter of September 6, 2007 requesting an approval to discharge treated into the sanitary sewer system at the above referenced location. This condensate will be generated from soil vapor extraction operation for six months.

We have approved your request for this discharge, treatment and reporting as outline in your letter.

If you should have any questions, please feel free to contact me at (901) 576-4337.

Sincerely,

Akil AL-Chokhachi
Environmental Engineer

c2M Memphis Field office
2241 Truitt Street
Memphis, TN 38114

From: Tom Holmes [mailto:tholmes@e2m.net]
Sent: Thursday, September 06, 2007 2:00 PM
To: Akil AL-Chokhachi
Cc: 'Steven Herrera'
Subject: Memphis Depot S-NN3-097

Mr. AL-Chokhachi,

The Memphis Depot is preparing to begin additional soil treatment on Dunn Field, the location of our existing groundwater discharge system (Permit No S-NN3-097). We will be using thermal-enhanced soil vapor extraction to remove chlorinated volatile organic compounds (CVOCs) from the loess at depths of 5 to 30 feet below ground surface. The heat will create steam in the clayey soils and we expect to generate approximately 4 gallons per minute of condensate. Because of the high vapor pressures of the CVOCs, the majority will remain in the vapor phase and will be treated prior to venting. The condensate will also be treated by activated carbon prior to discharge.

We would prefer to discharge the condensate through the existing groundwater discharge line. Following treatment, the condensate should be cleaner than the groundwater currently discharged and the volume is less than 10% of the current discharge volume of +/- 60 gpm. The condensate would be sampled and analyzed for the parameters in the permit at startup and quarterly thereafter. The system will operate for approximately 6 months. We would track the condensate volume separately and include it on our monthly discharge reports.

Please let me know what additional information or forms are required for your consideration of this request.

Regards,
 Tom Holmes

Thomas C. Holmes, P.G.
 engineering-environmental management (e²M)
 Atlanta, Georgia

Tel: 404-237-3982
 Cell: 404-295-3279
tholmes@e2m.net

Confidentiality The information contained in this transmission is advice intended exclusively for the proper use by the intended addressees and may contain confidential and/or privileged material. If you received this information in error, you are requested to inform the sender and/or addressee immediately and permanently delete and/or destroy the material. Please note that no confidentiality or privilege is waived or lost by any mis-transmission.



2 July 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Thermal SVE Wastewater Analytical Results
Industrial Wastewater Discharge Agreement S-NN3-097
Dunn Field, Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc. (e²M), on behalf of the Defense Logistics Agency, hereby submits the initial analytical results of treated condensate generated by the thermal soil vapor extraction (TSVE) system on Dunn Field at Defense Depot Memphis, Tennessee. Approval to discharge condensate from the TSVE system was granted by the City of Memphis on 7 September 2007. As noted in our request dated 6 September, the condensate will be treated with liquid-phase granular activated carbon prior to discharge and samples will be collected during startup and quarterly thereafter. The treated condensate is pumped to a 500-gallon storage tank and then, as the tank approaches capacity, is discharged to the City of Memphis sewer system through the existing discharge line utilized for the groundwater recovery system at Dunn Field.

The TSVE system was started on 27 May and a grab sample of the treated discharge was collected on 28 May. From system startup to 28 June, the condensate discharge rate averaged approximately 0.85 gallons per minute. The total volume of condensate discharged through 30 June 2008 will be provided in the June 2008 monthly discharge report. The condensate sample was submitted to Environmental Testing and Consulting, Inc. in Memphis, Tennessee for analysis of metals and volatile and semi-volatile organic compounds in accordance with the Agreement. An analytical results summary table with concentration limits from the Agreement and a complete laboratory report are attached. The laboratory omitted cis-1,2 dichloroethene (cDCE) from the analysis; they have been instructed to include cDCE in future analyses. All constituents were below the Discharge Agreement limits.

If you need additional information, please contact the undersigned at 404-237-3982 or thomas.holmes@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Thomas C Holmes

Thomas C. Holmes
Project Manager

cc: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Kevin Sedlak, e²M

engineering-environmental Management, Inc.

2451 Cumberland Parkway, Suite 3703, Atlanta, Georgia 30339 (404)799-1046

Sample Identification	Carbon Eff 1	City of Memphis Industrial Wastewater Allowable	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	5/28/08		
Corrosivity	SU	SU	SU
pH ⁽⁴⁾	7.3	5.5 to 10	5.5 to 10
Metals⁽¹⁾	mg/L	mg/L	mg/L
Aluminum (total)	0.129	1.000	2.000
Arsenic (total)	ND	0.040	0.100
Barium (total)	0.053	NS	NS
Cadmium (total)	ND	0.010	0.020
Chromium (total)	ND	0.200	0.400
Copper (total)	ND	0.200	0.400
Iron (total)	0.465	10.000	20.000
Lead (total)	ND	0.150	0.300
Mercury (total)	ND	0.001	0.002
Nickel (total)	0.009	0.100	0.300
Zinc (total)	0.010	0.300	1.000
Volatile Organics⁽²⁾	ug/L	ug/L	ug/L
Carbon Tetrachloride	ND	20	40
Chloroform	ND	100	200
1,1-dichloroethene	ND	50	100
Cis-1,2-dichloroethene	NA	80	100
Trans-1,2-dichloroethene	ND	50	100
Methylene Chloride	ND	10	20
1,1,2,2-tetrachloroethane	ND	500	1000
Tetrachloroethene	ND	60	120
Toluene	ND	20	40
1,1,1-trichloroethane	ND	10	20
1,1,2-trichloroethane	ND	50	100
Trichloroethene	ND	400	800
Semi-Volatile Organics⁽³⁾	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	ND	10	20
Di-n-butyl Phthalate	ND	30	60
Naphthalene	ND	10	20
Phenol	ND	10	20

Notes

(1) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A).

(2) Volatile Organic Analyses performed by EPA Method 624

(3) Semi-Volatile Organic Analyses performed by EPA Method 625

(4) pH measured in the field.

NA = Not analyzed. The parameter was not included in the laboratory analysis.

NS = No standard listed in the Industrial Wastewater Discharge Permit.

ND = Analyte not detected above reporting limit.



ENVIRONMENTAL TESTING & CONSULTING, INC.

2780 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

6/4/2008

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg, MA, 01450

Ref: Analytical Testing
Report Number: 08-150-9201
Project Description: Dunn Ave.

Dear Mr. Ken Parker:

Environmental Testing and Consulting, Inc. received 1 sample(s) on 5/29/2008 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

The EPA requires that water samples analyzed for pH, dissolved oxygen and total residual chlorine be analyzed in the field. Analyses and results reported which do not indicate "Field" for these parameters were analyzed outside the holding time as specified in Table II of 40 CFR Part 136.3.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA and NELAP.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Nathan Pera
Project Manager

Alabama #40750
Arkansas #88-0650
Illinois #200015
Kentucky #90047
Kentucky UST #41

Louisiana #04015
Mississippi
Oklahoma #9311
Tennessee #02027
Virginia #00106

Florida #E87943
Pennsylvania #68-3195
USDA #5-46279
EPA #TN00012
NELAP #100456

California #05240CA
Texas #T104704180-05-TX



301099407



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

03896

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg , MA 01450

Project ID :
Description : Dunn Ave.
Memphis, TN
Project #7010

Revised Report Date : 6/4/2008

Report Number : 08-150-9201

REPORT OF ANALYSIS

Received : 5/29/2008

Lab No : 69606

Matrix: Aqueous

Sample ID : Carbon Eff 1

Sampled: 5/28/2008 15:05

Test	Results	Units	ML	Date / Time Analyzed	By	Analytical Method
Total Arsenic	<0.01	mg/L	0.01	05/28/08 09:41	JTR	SW-6010B
Total Barium	0.053	mg/L	0.01	05/28/08 09:41	JTR	SW-6010B
Total Cadmium	<0.002	mg/L	0.002	05/28/08 09:41	JTR	SW-6010B
Total Chromium	<0.005	mg/L	0.005	05/28/08 09:41	JTR	SW-6010B
Total Lead	<0.006	mg/L	0.006	05/28/08 09:41	JTR	SW-6010B
Total Mercury	<0.0002	mg/L	0.0002	05/29/08 11:50	TJ	SW-7470A
Total Selenium	<0.01	mg/L	0.01	05/28/08 09:41	JTR	SW-6010B
Total Silver	<0.005	mg/L	0.005	05/28/08 09:41	JTR	SW-6010B

Qualifiers/
Definitions

ML

Method Quantitation Limit



ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etcenvironmental.com

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

TerraTherm, Inc.

10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-150-0201

Lab ID 0805399-001A

Field ID Carbon Eff 1

Sample Number 69606

Project Dunn Ave. Memphis, TN

Description

Project No. 7010

Report of Analysis

Received 05/29/08

Matrix Aqueous

Sampled 05/28/08 15:05

Analytical Method 624

Prep Method 624

Prep Batch(s) 20427

Date/Time Prepped 05/29/08 9:06

Compound	Result	Units	MLQ	DF	Date/Time Analyzed	By	Analytical Batch
Acrolein	< 20.0	µg/L	20.0	1	05/29/08 14:37	LS	34187
Acrylonitrile	< 20.0	µg/L	20.0	1	05/29/08 14:37	LS	34187
Benzene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Bromodichloromethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Bromoform	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Bromomethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Carbon tetrachloride	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Chlorobenzene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Chlorodibromomethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Chloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
2-Chloroethyl vinyl ether	< 5.00 M	µg/L	5.00	1	05/29/08 14:37	LS	34187
Chloroform	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Chloromethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,2-Dichlorobenzene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,3-Dichlorobenzene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,4-Dichlorobenzene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,1-Dichloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,2-Dichloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,1-Dichloroethene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
trans-1,2-Dichloroethene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,2-Dichloropropane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
cis-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
trans-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Ethylbenzene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
Methylene chloride	< 10.0	µg/L	10.0	1	05/29/08 14:37	LS	34187
Styrene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187
1,1,1,2-Tetrachloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187

Qualifiers/
Definitions

* Surrogate Recovery outside accepted limits

B Analyte detected in the associated Method Blank

E Value exceeds method calibration range

J Estimated Value Analyte below reported detection limit

MDL Method Detection Limit (unadjusted)

MRL Method Reporting Limit

Q RPD >40% between primary and confirmation columns

* I Recoveries affected by interferences or high background

DF Dilution Factor

H Prepped / Analyzed out of holding time.

M Minimum value

MLQ Method Quantitation Limit (adjusted)

N Refer to attached Non-Compliance Report

SQL Sample Quantitation Limit (adjusted MDL)

06/04/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38132 (901) 213-2400 Fax (901) 213-2440
A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-150-0201

Lab ID 0805399-001A

Field ID Carbon Eff 1

Sample Number 69606

Project **Dunn Ave. Memphis, TN**
Description

Project No. 7010

Report of Analysis

Received 05/29/08

Matrix Aqueous

Sampled 05/28/08 15:05

Analytical Method 624

Prep Method	624	Prep Batch(s)	20427	Date/Time Prepped				05/29/08 9:06
Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch	
1,1,2,2-Tetrachloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
Tetrachloroethene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
Toluene	< 5.00	µg/L	5.00	1	05/29/08 14:37	LS	34187	
1,1,1-Trichloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
1,1,2-Trichloroethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
Trichloroethene	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
Trichlorofluoromethane	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
Vinyl chloride	< 1.00	µg/L	1.00	1	05/29/08 14:37	LS	34187	
Surrogate: Dibromofluoromethane	112 %	Limits: 75-125	1	05/29/08 14:37	LS	34187		
Surrogate: Toluene-d8	105 %	Limits: 85-120	1	05/29/08 14:37	LS	34187		
Surrogate: 4-Bromofluorobenzene	116 %	Limits: 85-118	1	05/29/08 14:37	LS	34187		
Surrogate: 1,2-Dichloroethane-d4	121 %	Limits: 72-132	1	05/29/08 14:37	LS	34187		

Qualifiers/							
Definitions	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background			
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor			
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time			
	J	Estimated Value: Analyte below reported detection limit	M	Minimum value			
	MDL	Method Detection Limit (unadjusted)	MLQ	Method Quantitation Limit (adjusted)			
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report			
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)			
06/04/08	3896	TERRATHERM_AL					



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213-7400 Fax (901) 213-2440
A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-150-0201

Lab ID 0805399-001B

Field ID Carbon Eff 1

Sample Number 69606

Project Dunn Ave. Memphis, TN
Description

Project No. 7010

Report of Analysis

Received 05/29/08

Matrix Aqueous

Sampled 05/28/08 15:05

Analytical Method 625

Prep Method 625

Prep Batch(s) 20431

Date/Time Prepped 05/29/08 9:00

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Acenaphthene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Acenaphthylene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Anthracene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Benzidine	< 20.0 M	µg/L	20.0	1	05/29/08 19:31	AA	34207
Benzo(a)anthracene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Benzo(b)fluoranthene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Benzo(k)fluoranthene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Benzo(g,h,i)perylene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Benzo(a)pyrene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Bis(2-chloroethyl)ether	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Bis(2-chloroethoxy)methane	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Bis(2-chloroisopropyl)ether	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Bis(2-ethylhexyl)phthalate	< 10.0	µg/L	10.0	1	05/29/08 19:31	AA	34207
4-Bromophenyl phenyl ether	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Butyl benzyl phthalate	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
4-Chloro-3-methylphenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
2-Chloronaphthalene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
2-Chlorophenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
4-Chlorophenyl phenyl ether	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Chrysene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Dibenz(a,h)anthracene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
1,2-Dichlorobenzene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
1,3-Dichlorobenzene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
1,4-Dichlorobenzene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Di-n-butyl phthalate	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
3,3'-Dichlorobenzidine	< 10.0	µg/L	10.0	1	05/29/08 19:31	AA	34207
2,4-Dichlorophenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207

Qualifiers/	*	Surrogate Recovery outside accepted limits
Definitions	B	Analyte detected in the associated Method Blank
	E	Value exceeds method calibration range
	J	Estimated Value Analyte below reported detection limit
	MDL	Method Detection Limit (unadjusted)
	MRL	Method Reporting Limit
	Q	RPD >40% between primary and confirmation columns

* I	Recoveries affected by interferences or high background
DF	Dilution Factor
H	Prepped / Analyzed out of holding time.
M	Minimum value
MQL	Method Quantitation Limit (adjusted)
N	Refer to attached Non-Compliance Report
SQL	Sample Quantitation Limit (adjusted MDL)

06/04/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitson Road Memphis, Tennessee 38133 (901) 213-7400 Fax (901) 213-2449
 "A Laboratory Management Partner"

TerraTherm, Inc.
 10 Stevens Rd.

Project Dunn Ave. Memphis, TN
 Description

Project No. 7010

Fitchburg, MA 01480

Lab Order Number 08-150-0201

Lab ID 0805399-001B

Field ID Carbon Eff 1

Sample Number 69606

Report of Analysis

Received 05/29/08

Matrix Aqueous

Sampled 05/28/08 15:05

Analytical Method 625

Prep Method 625 Prep Batch(s) 20431 Date/Time Prepped 05/29/08 9:00

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Diethyl phthalate	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
2,4-Dimethylphenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Dimethyl phthalate	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	10.0	1	05/29/08 19:31	AA	34207
2,4-Dinitrophenol	< 5.00	µg/L	5.00	1	05/29/08 19:19	AA	34207
2,4-Dinitrotoluene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
2,6-Dinitrotoluene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Di-n-octyl phthalate	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
1,2-Diphenylhydrazine/Azobenzene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Fluoranthene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Fluorene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Hexachlorobenzene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Hexachlorobutadiene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Hexachlorocyclopentadiene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Hexachloroethane	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Indeno(1,2,3-cd)pyrene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Isophorone	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Naphthalene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Nitrobenzene	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
2-Nitrophenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
4-Nitrophenol	< 20.0	µg/L	20.0	1	05/29/08 19:31	AA	34207
N-Nitrosodimethylamine	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
N-Nitrosodiphenylamine	< 10.0	µg/L	10.0	1	05/29/08 19:31	AA	34207
N-Nitrosodi-n-propylamine	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Pentachlorophenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207
Phenanthrene	< 2.00	µg/L	2.00	1	05/29/08 19:31	AA	34207
Phenol	< 5.00	µg/L	5.00	1	05/29/08 19:31	AA	34207

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H Prepped / Analyzed out of holding time
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

06/04/08 3896 TERRATHERM_AL

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ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etcenv.com

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-7400

Fax (901) 213-2442

"A Laboratory Management Partner"

TerraTherm, Inc.

10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-150-0201

Lab ID 0805399-001B

Field ID Carbon Eff 1

Sample Number 69606

Project Dunn Ave. Memphis, TN

Description

Project No. 7010

Report of Analysis

Received 05/29/08

Matrix Aqueous

Sampled 05/28/08 15:05

Analytical Method 625

Prep Method	625	Prep Batch(s)	20431			Date/Time Prepped	05/29/08 9:00
Compound		Result	Units	MQL	DF	Date/Time Analyzed	Analytical By Batch
Pyrene		< 2.00	µg/L	2.00	1	05/29/08 19:31	AA 34207
1,2,4-Trichlorobenzene		< 5.00	µg/L	5.00	1	05/29/08 19:31	AA 34207
2,4,6-Trichlorophenol		< 5.00	µg/L	5.00	1	05/29/08 19:31	AA 34207
Surrogate: Nitrobenzene-d5		79 %	Limits: 29-110		1	05/29/08 19:31	AA 34207
Surrogate: 2-Fluorobiphenyl		71 %	Limits: 38-107		1	05/29/08 19:31	AA 34207
Surrogate: 4-Terphenyl-d14		84 %	Limits: 33-122		1	05/29/08 19:31	AA 34207
Surrogate: Phenol-d6		32 %	Limits: 7-58		1	05/29/08 19:31	AA 34207
Surrogate: 2,4,6-Tribromophenol		68 %	Limits: 16-138		1	05/29/08 19:31	AA 34207
Surrogate: 2-Fluorophenol		42 %	Limits: 8-88		1	05/29/08 19:31	AA 34207

Qualifiers/Definitions	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
B	Analyte detected in the associated Method Blank	DF Dilution Factor
E	Value exceeds method calibration range	H Prepped / Analyzed out of holding time.
J	Estimated Value Analyte below reported detection limit	M Minimum value
MDL	Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
MRL	Method Reporting Limit	N Refer to attached Non-Compliance Report
Q	RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

06/04/08 3896 TERRATHERM_AL

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ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

Cooler Receipt Form

Customer Number: 03896

Customer Name: TerraTherm, Inc.

08-150-0201

Report Number: 08-150-0201

Shipping Method

☐ FedEx ☐ UPS ☐ US Postal ☒ Client ☐ LMP ☐ Courier ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Rebekah Ross

Date & Time: 5/28/08 16:20



Environmental Testing & Consulting, Inc. 2790 Whiten Road
Memphis, TN 38133 (901) 213-2400 Fax (901) 213-2440
clientservices@etcmemphis.com

0805399

08-150-0201
03896
May 29 2008
8:49AM

Terra Therm, Inc.
Dunn Ave.

[illegible]

Please return ETC Sample Kit Request Form with chain of custody.
Distribution: Original accompanies samples to the laboratory.

5/28/08-1620

Page ____ of ____

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ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

03896

TerraTherm, Inc.

Mr. Ken Parker

10 Stevens Rd.

Fitchburg , MA 01450

Project ID :

Description : Dunn Ave.

Memphis, TN

Project #7010

Report Date : 6/10/2008

Report Number : **08-161-0260**

REPORT OF ANALYSIS

Received : 6/9/2008

Lab No : **70876**

Matrix: **Aqueous**

Sample ID : **Carbon EFF**

Sampled: **5/28/2008 15:05**

Test	Results	Units	MQL	Date / Time Analyzed	By	Analytical Method
Total Aluminum	0.129	mg/L	0.1	05/30/08 04:11	JTR	SW-6010B
Total Arsenic	<0.01	mg/L	0.01	05/30/08 04:11	JTR	SW-6010B
Total Cadmium	<0.002	mg/L	0.002	05/30/08 04:11	JTR	SW-6010B
Total Chromium	<0.005	mg/L	0.005	05/30/08 04:11	JTR	SW-6010B
Total Copper	<0.005	mg/L	0.005	05/30/08 04:11	JTR	SW-6010B
Total Iron	0.465	mg/L	0.1	05/30/08 04:11	JTR	SW-6010B
Total Lead	<0.006	mg/L	0.006	05/30/08 04:11	JTR	SW-6010B
Total Mercury	<0.0002	mg/L	0.0002	05/29/08 11:50	JTR	SW-7470A
Total Nickel	0.009	mg/L	0.005	05/30/08 04:11	JTR	SW-6010B
Total Zinc	0.01	mg/L	0.01	05/30/08 04:11	JTR	SW-6010B

**Qualifiers/
Definitions**

MQL

Method Quantitation Limit

51A0001
1000416



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

Cooler Receipt Form

Customer Number: **03896**

Customer Name: **TerraTherm, Inc.**

08-161-0260

Report Number: **08-161-0260**

Shipping Method

☐ FedEx ☐ UPS ☐ US Postal ☒ Client ☐ LMP ☐ Courier ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Rebekah Ross

Date & Time: 5/28/08 16.20

1000417
3190001

08-161-0260
03856
Jun 9 2008
4 05PM

Terra Therm, Inc.
Dunn Ave.

0803394

Environmental Testing & Consulting, Inc. 2780 Whitten Road
Memphis, TN 38133 (901) 213-2400 Fax: (901) 213-2440
clientservices@etcmemphis.com



Company Name Terra Therm		Phone # 901-213-0300		RUSH? <input checked="" type="checkbox"/>	
Project Status (Include State) Dunn Ave Memphis TN		PO # 7010		Ice <input checked="" type="checkbox"/>	
Type of Event: Single Daily Weekly Monthly Monthly		FID #			
Project # 7010		E-mail Rparker@terra-therm.com			
Project Manager/Contact Ken Parker		Quantity: Semi-Annual Annual			
Matrix		1 Wastewater		4 Sludge	
2 Aqueous		5 Oil/Solvent		6 Other	
3 Soil/Sediment		7 Sample Date		8 Time	
9 Sample ID Number		Depth		Type	
10 Cont.				Grab/Comp	
11		5/28/08 3:05		Grab	
12		6/28/08 3:05		Grab	
13		6/28/08 3:05		Grab	
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August 19, 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Thermal SVE Wastewater – Effluent Analysis
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc. (e²M), on behalf of the Defense Logistics Agency, hereby submits analytical results, collected on 19 June and 25 July 2008, of the treated condensate generated from the thermal soil vapor extraction (TSVE) system on Dunn Field at Defense Depot Memphis, Tennessee (DDMT). Approval to discharge condensate from the TSVE system was granted by the City of Memphis on 7 September 2007. As noted in our request dated 6 September 2007, the condensate will be treated with liquid-phase granular activated carbon (GAC) prior to discharge and samples will be collected during startup and quarterly thereafter. The treated condensate is pumped to a 500-gallon storage tank and then, as the tank approaches capacity, is pumped into a single conveyance line for discharge. The storage tank also receives non-contact cooling water through blow-down water from a cooling tower utilized by the TSVE system. (The cooling water is obtained from a City of Memphis water supply connection on Dunn Avenue.) The water is discharged via a single conveyance line to the City of Memphis sewer system through the existing discharge line utilized for the interim remedial action (IRA) groundwater recovery system at Dunn Field.

On 19 June 2008, a grab sample of the TSVE system treated condensate was collected. The sample was representative of the treated condensate only and did not include water from the cooling tower. e²M notified the City of Memphis via telephone on 24 July 2008 that five constituents [aluminum, copper, iron, zinc, and bis (2-ethylhexyl) phthalate] exceeded permit discharge limits for one day and/or monthly average maximums. Per discussion with the City of Memphis, a second sample of the treated condensate was collected on 25 July 2008 and the system remained online. The 25 July sample also did not include water from the cooling tower. Results from the 25 July sampling indicated ten constituents [copper, zinc, 1,1,2,2-TCA, chloroform, cis-1,2-DCE, methylene chloride, TCE, bis(2-ethylhexyl) Phthalate, di-nbutyl Phthalate, and phenol] exceeded one or both of the discharge limits for one day and monthly average maximums. In addition, the pH reading was outside of the allotted range. Results from both the 19 June and 25 July samples are summarized on the attached table. The complete laboratory reports for the two sample results are also included.

The elevated volatile organic compounds (VOCs) and semi-VOCs (SVOCs) detected in the 25 July samples are believed to be attributed to VOC and SVOC breakthrough of the liquid

engineering-environmental Management, Inc.

11171 Sun Center Drive, Suite 210, Rancho Cordova, CA 95670 • (916) 852-7792 • Fax (916) 852-7836



Akil AL-Chokhachi
August 19, 2008
Page 2 of 2

phase GAC vessels. The GAC units apparently reached their adsorption capacity between the two sample events. The liquid phase GAC was replaced on 8 August 2008 and it is expected VOC and SVOC concentrations are below discharge limits at this time.

As a result of the 25 July laboratory results, an additional sample will be collected at the GAC discharge during the week of 18 August 2008. Additionally, a sample will be collected at the discharge from the 500-gallon storage tank which contains treated condensate and water from the cooling tower to determine actual TSVE system discharge concentrations. Results from these samples will be submitted to the laboratory for analysis with a 72 hour turn-around-time and will be submitted to the City of Memphis. It is recommended that the TSVE system remain online while awaiting these sample results as we believe the TSVE system discharges results are below permit limits based on the recent GAC change out.

Measures have been enacted to more closely monitor concentrations from the condensate discharge treatment system. In the future, an additional sample will be collected between the two liquid GAC vessels to more closely monitor condensate treatment system performance. Additionally, a sample will be collected at the TSVE system discharge point (location prior to discharge into IRA groundwater recovery system discharge line) and will contain both treated condensate and water from the cooling tower. Lime chips have been added to the 500-gallon storage tank in an attempt to increase the pH prior to discharge. During the week of 18 August 2008, a caustic injection system will be installed to the storage tank to adjust the pH to within discharge limits. pH readings will be field-measured with a pH indicator during daily system monitoring.

If you need additional information, please contact the undersigned at (916) 852-7792 or steven.herrera@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Steven Herrera, P.E.
IRA Task Manager

c: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Thomas Holmes, e²M

Summary of Analytical Results
Thermal SVE Discharge
Defense Depot Memphis, Tennessee
Project No. FA8903-04D-8722-0019
e²M Project 3202-043

Sample Identification	TSVE System Discharge ⁽¹⁾		City of Memphis Industrial Permit Discharge Limits	
	6/19/2008	7/25/2008	Monthly Average Maximum	One Day Maximum
Date Sample Collected	6/19/2008	7/25/2008		
Discharge Flow Rate (gpm)	1.4	1.5		
pH ⁽²⁾	5.0	3.7	5.5 to 10.0	5.5 to 10.0
TAL Metals ⁽³⁾	mg/L	mg/L	mg/L	mg/L
Aluminum	10.3	0.312	1.000	2.000
Arsenic	ND	ND	0.040	0.100
Cadmium	ND	ND	0.010	0.020
Chromium	0.036	0.01	0.200	0.400
Copper	0.395	0.332	0.200	0.400
Iron	17.0	6.40	10.000	20.000
Lead	0.042	0.055	0.150	0.300
Mercury	ND	ND	0.001	0.002
Nickel	0.059	0.051	0.100	0.300
Zinc	1.36	0.644	0.300	1.000
TCL Volatile Organic Compounds ⁽⁴⁾	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	10	20
1,1,2,2-Tetrachloroethane	233	8550	500	1000
1,1,2-Trichloroethane	1.34	18.1	50	100
1,1-Dichloroethene	ND	ND	50	100
Carbon tetrachloride	ND	2.43	20	40
Chloroform	85.2	383	100	200
cis-1,2-Dichloroethene	8.58	103	80	100
Methylene chloride	ND	10	10	20
Tetrachloroethene	ND	6.04	60	120
Toluene	ND	ND	20	40
trans-1,2-Dichloroethene	ND	21.6	50	100
Trichloroethene	9.16	611	400	800
TCL Semi-volatile Organic Compounds ⁽⁵⁾	ug/L	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	31.6	26.6 B	10	20
Di-n-butyl Phthalate	5.51	52.2	30	60
Naphthalene	ND	2.79	10	20
Phenol	ND	40.1	10	20

Notes:

- (1) Sample collected at effluent of condensate treatment system. Condensate is mixed with cooling water prior to discharge to the City of Memphis via the IRA System discharge line.
 - (2) pH analyses performed by EPA Method 150.1. pH for the TSVE system is measured in the field.
 - (3) Target Analyte List (TAL) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A).
 - (4) TCL Volatile Organic analyses performed by EPA Method 8260B.
 - (5) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C.
- B = Analyte detected in the method blank sample
NS = No standard listed in the Industrial Wastewater Discharge Permit
ND = Not Detected
mg/L = milligrams per liter
ug/L = micrograms per liter
TSVE = Thermal Soil Vapor Extraction
Bold number indicates that value exceeds permit maximum

1000421
0540001



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

7/1/2008

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg, MA, 01450

Ref: Analytical Testing
Report Number: 08-171-0239
Project Description: Dunn Rd.

Dear Mr. Ken Parker:

Environmental Testing and Consulting, Inc. received 1 sample(s) on 6/19/2008 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

The EPA requires that water samples analyzed for pH, dissolved oxygen and total residual chlorine be analyzed in the field. Analyses and results reported which do not indicate "Field" for these parameters were analyzed outside the holding time as specified in Table II of 40 CFR Part 136.3.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA and NELAP.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Nathan Pera
Project Manager

Alabama #40750
Arkansas #88-0650
Illinois #200015
Kentucky #90047
Kentucky UST #41

Louisiana #04015
Mississippi
Oklahoma #9311
Tennessee #02027
Virginia #00106

Florida #E87943
Pennsylvania #68-3195
USDA #S-46279
EPA #TN00012
NELAP #100456

California #05240CA
Texas #T104704180-05-TX





ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
 "A Laboratory Management Partner"

03896
 TerraTherm, Inc.
 Mr. Ken Parker
 10 Stevens Rd.
 Fitchburg, MA 01450

Project ID :
 Description : Dunn Rd.
 Memphis, TN
 Project #7-010

Report Date : 7/1/2008

Report Number : 08-171-0239

REPORT OF ANALYSIS

Received : 6/19/2008

Lab No : 72159
 Sample ID : Effluent

Matrix: Aqueous
 Sampled: 6/19/2008 0:00

Test	Results	Units	MQL	Date / Time Analyzed	By	Analytical Method
Total Aluminum	10.3	mg/L	0.1	07/01/08 08:28	JTR	SW-6010B
Total Arsenic	<0.01	mg/L	0.01	07/01/08 08:28	JTR	SW-6010B
Total Barium	0.112	mg/L	0.01	07/01/08 08:28	JTR	SW-6010B
Total Cadmium	<0.002	mg/L	0.002	07/01/08 08:28	JTR	SW-6010B
Total Chromium	0.036	mg/L	0.005	07/01/08 08:28	JTR	SW-6010B
Total Copper	0.395	mg/L	0.005	07/01/08 08:28	JTR	SW-6010B
Total Iron	17.0	mg/L	0.1	07/01/08 08:28	JTR	SW-6010B
Total Lead	0.042	mg/L	0.006	07/01/08 08:28	JTR	SW-6010B
Total Mercury	<0.0002	mg/L	0.0002	06/24/08 12:15	TJ	SW-7470A
Total Nickel	0.059	mg/L	0.005	07/01/08 08:28	JTR	SW-6010B
Total Selenium	<0.01	mg/L	0.01	07/01/08 08:28	JTR	SW-6010B
Total Silver	<0.005	mg/L	0.005	07/01/08 08:28	JTR	SW-6010B
Total Zinc	1.36	mg/L	0.01	07/01/08 08:28	JTR	SW-6010B

Qualifiers/ Definitions MQL Method Quantitation Limit



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.

Project **Dunn Ave.**
Description

Site **Memphis, TN**

Fitchburg, MA 01480

Project No. **7-010**

Lab Order Number **08-171-0239**

Report of Analysis

Lab ID **0806311-001A**

Received **06/19/08**

Field ID **Effluent**

Matrix **Aqueous**

Sample Number **72159**

Sampled **06/19/08 0:00**

Analytical Method 8260B

Prep Method **5030B**

Prep Batch(s) **20844**

Date/Time Prepped **07/01/08 9:08**

Compound	Result	Units	ML	DF	Date/Time Analyzed	By	Analytical Batch
Acetone	889	µg/L	200	10	07/01/08 17:22	LS	34668
Acetonitrile	< 50.0	µg/L	50.0	1	07/01/08 16:08	LS	34668
Acrolein	< 20.0	µg/L	20.0	1	07/01/08 16:08	LS	34668
Acrylonitrile	< 20.0	µg/L	20.0	1	07/01/08 16:08	LS	34668
Benzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Bromobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Bromochloromethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Bromodichloromethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Bromoform	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Bromomethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
n-Butylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
sec-Butylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
tert-Butylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
2-Butanone (MEK)	< 20.0	µg/L	20.0	1	07/01/08 16:08	LS	34668
Carbon disulfide	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Carbon tetrachloride	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Chlorobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Chlorodibromomethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Chloroethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
2-Chloroethyl vinyl ether	< 5.00 M	µg/L	5.00	1	07/01/08 16:08	LS	34668
Chloroform	85.2	µg/L	1.00	1	07/01/08 16:08	LS	34668
Chloromethane	1.54	µg/L	1.00	1	07/01/08 16:08	LS	34668
2-Chlorotoluene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
4-Chlorotoluene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,2-Dibromo-3-chloropropane	< 5.00	µg/L	5.00	1	07/01/08 16:08	LS	34668
1,2-Dibromoethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Dibromomethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668

Qualifiers/	*	Surrogate Recovery outside accepted limits
Definitions	B	Analyte detected in the associated Method Blank
	E	Value exceeds method calibration range
	J	Estimated Value Analyte below reported detection limit
	MDL	Method Detection Limit (unadjusted)
	MRL	Method Reporting Limit
	Q	RPD >40% between primary and confirmation columns

* I	Recoveries affected by interferences or high background
DF	Dilution Factor
H	Prepped / Analyzed out of holding time
M	Minimum value
ML	Method Quantitation Limit (adjusted)
N	Refer to attached Non-Compliance Report
SQL	Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL

35A0001
1000424



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213 2400 Fax (901) 213 2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-171-0239

Lab ID 0806311-001A

Field ID Effluent

Sample Number 72159

Project Description
Dunn Ave.

Project No. 7-010

Site Memphis, TN

Report of Analysis

Received 06/19/08

Matrix Aqueous

Sampled 06/19/08 0:00

Analytical Method 8260B

Prep Method 5030B

Prep Batch(s) 20844

Date/Time Prepped 07/01/08 9:08

Compound	Result	Units	ML	DF	Date/Time Analyzed	By	Analytical Batch
1,2-Dichlorobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,3-Dichlorobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,4-Dichlorobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Dichlorodifluoromethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1-Dichloroethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,2-Dichloroethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1-Dichloroethene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
cis-1,2-Dichloroethene	8.58	µg/L	1.00	1	07/01/08 16:08	LS	34668
trans-1,2-Dichloroethene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,2-Dichloropropane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,3-Dichloropropane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
2,2-Dichloropropane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1-Dichloropropene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
cis-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
trans-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Ethyl acetate	< 10.0	µg/L	10.0	1	07/01/08 16:08	LS	34668
Ethylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Hexachlorobutadiene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
2-Hexanone	< 5.00	µg/L	5.00	1	07/01/08 16:08	LS	34668
Iodomethane	< 5.00	µg/L	5.00	1	07/01/08 16:08	LS	34668
Isopropylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
4-Isopropyltoluene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Methylene chloride	< 10.0	µg/L	10.0	1	07/01/08 16:08	LS	34668
4-Methyl-2-pentanone	< 5.00	µg/L	5.00	1	07/01/08 16:08	LS	34668
Methyl tert-butyl ether	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Naphthalene	< 5.00	µg/L	5.00	1	07/01/08 16:08	LS	34668
n-Propylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H Prepped / Analyzed out of holding time.
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	ML Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL

1000425
ASTP0001

ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whisman Road Memphis, Tennessee 38132 (901) 213 2400 Fax (901) 213 2440
"A Laboratory Management Partner"TerraTherm, Inc.
10 Stevens Rd.Project Dunn Ave.
Description

Site Memphis, TN

Fitchburg, MA 01480

Project No. 7-010

Lab Order Number 08-171-0239

Report of Analysis

Lab ID 0806311-001A

Received 06/19/08

Field ID Effluent

Matrix Aqueous

Sample Number 72159

Sampled 06/19/08 0:00

Analytical Method 8260B

Prep Method 5030B

Prep Batch(s) 20844

Date/Time Prepped 07/01/08 9:08

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Styrene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1,1,2-Tetrachloroethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1,2,2-Tetrachloroethane	233	µg/L	10.0	10	07/01/08 17:22	LS	34668
Tetrachloroethene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Toluene	< 5.00	µg/L	5.00	1	07/01/08 16:08	LS	34668
1,2,3-Trichlorobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,2,4-Trichlorobenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1,1-Trichloroethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,1,2-Trichloroethane	1.34	µg/L	1.00	1	07/01/08 16:08	LS	34668
Trichloroethene	9.16	µg/L	1.00	1	07/01/08 16:08	LS	34668
Trichlorofluoromethane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,2,3-Trichloropropane	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,2,4-Trimethylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
1,3,5-Trimethylbenzene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Vinyl acetate	< 10.0	µg/L	10.0	1	07/01/08 16:08	LS	34668
Vinyl chloride	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
m,p-Xylene	< 2.00	µg/L	2.00	1	07/01/08 16:08	LS	34668
o-Xylene	< 1.00	µg/L	1.00	1	07/01/08 16:08	LS	34668
Surrogate: Dibromofluoromethane	112 %	Limits:	75-125	1	07/01/08 16:08	LS	34668
Surrogate: Toluene-d8	102 %	Limits:	85-120	1	07/01/08 16:08	LS	34668
Surrogate: 4-Bromofluorobenzene	108 %	Limits:	85-118	1	07/01/08 16:08	LS	34668
Surrogate: 1,2-Dichloroethane-d4	116 %	Limits:	72-132	1	07/01/08 16:08	LS	34668
Surrogate: Dibromofluoromethane	115 %	Limits:	75-125	10	07/01/08 17:22	LS	34668
Surrogate: Toluene-d8	107 %	Limits:	85-120	10	07/01/08 17:22	LS	34668
Surrogate: 4-Bromofluorobenzene	108 %	Limits:	85-118	10	07/01/08 17:22	LS	34668
Surrogate: 1,2-Dichloroethane-d4	123 %	Limits:	72-132	10	07/01/08 17:22	LS	34668

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H -Prepped / Analyzed out of holding time
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38132 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-171-0239

Lab ID 0806311-001B

Field ID Effluent

Sample Number 72159

Project Dunn Ave.
Description

Project No. 7-010

Site Memphis, TN

Report of Analysis

Received 06/19/08

Matrix Aqueous

Sampled 06/19/08 0:00

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 20695

Date/Time Prepped 06/20/08 18.13

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Acenaphthene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Acenaphthylene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Acetophenone	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Aniline	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Anthracene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Benzidine	< 20.0 M	µg/L	20.0	1	06/26/08 4:13	AA	34560
Benzo(a)anthracene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Benzo(b)fluoranthene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Benzo(k)fluoranthene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Benzo(g,h,i)perylene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Benzo(a)pyrene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Benzoic acid	< 10.0	µg/L	10.0	1	06/26/08 4:13	AA	34560
Benzyl alcohol	< 10.0	µg/L	10.0	1	06/26/08 4:13	AA	34560
Bis(2-chloroethyl)ether	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Bis(2-chloroethoxy)methane	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Bis(2-chloroisopropyl)ether	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Bis(2-ethylhexyl)phthalate	31.6	µg/L	10.0	1	06/26/08 4:13	AA	34560
4-Bromophenyl phenyl ether	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Butyl benzyl phthalate	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Carbazole	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
4-Chloroaniline	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
4-Chloro-3-methylphenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
2-Chloronaphthalene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
2-Chlorophenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
4-Chlorophenyl phenyl ether	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Chrysene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Dibenz(a,h)anthracene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL

1000427
8510001



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-3440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Project **Dunn Ave.**
Description

Site **Memphis, TN**

Fitchburg, MA 01480

Project No. **7-010**

Lab Order Number **08-171-0239**

Report of Analysis

Lab ID **0806311-001B**

Received **06/19/08**

Field ID **Effluent**

Matrix **Aqueous**

Sample Number **72159**

Sampled **06/19/08 0:00**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 20695 Date/Time Prepped 06/20/08 18.13

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Dibenzofuran	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
1,2-Dichlorobenzene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
1,3-Dichlorobenzene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
1,4-Dichlorobenzene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Di-n-butyl phthalate	5.51	µg/L	5.00	1	06/26/08 4:13	AA	34560
3,3'-Dichlorobenzidine	< 10.0	µg/L	10.0	1	06/26/08 4:13	AA	34560
2,4-Dichlorophenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
2,6-Dichlorophenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Diethyl phthalate	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
3,3'-Dimethylbenzidine	< 10.0 M	µg/L	10.0	1	06/26/08 4:13	AA	34560
2,4-Dimethylphenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Dimethyl phthalate	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	10.0	1	06/26/08 4:13	AA	34560
2,4-Dinitrophenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
2,4-Dinitrotoluene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
2,6-Dinitrotoluene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Di-n-octyl phthalate	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Fluoranthene	7.50	µg/L	2.00	1	06/26/08 4:13	AA	34560
Fluorene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Hexachlorobenzene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Hexachlorobutadiene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Hexachlorocyclopentadiene	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Hexachloroethane	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
Indeno(1,2,3-cd)pyrene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
Isophorone	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560
2-Methylnaphthalene	< 2.00	µg/L	2.00	1	06/26/08 4:13	AA	34560
2-Methylphenol	< 5.00	µg/L	5.00	1	06/26/08 4:13	AA	34560

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H Prepped / Analyzed out of holding time.
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2449
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-171-0239

Lab ID 0806311-001B

Field ID Effluent

Sample Number 72159

Project Description
Dunn Ave.

Project No. 7-010

Site Memphis, TN

Report of Analysis

Received 06/19/08

Matrix Aqueous

Sampled 06/19/08 0:00

Analytical Method 8270C

Prep Method	3510C	Prep Batch(s)	20695			Date/Time Prepped	06/20/08 18:13
Compound		Result	Units	MQL	DF	Date/Time Analyzed	Analytical Batch
3&4-Methylphenol		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
Naphthalene		< 2.00	µg/L	2.00	1	06/26/08 4:13	AA 34560
2-Nitroaniline		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
3-Nitroaniline		< 10.0	µg/L	10.0	1	06/26/08 4:13	AA 34560
4-Nitroaniline		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
Nitrobenzene		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
2-Nitrophenol		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
4-Nitrophenol		< 20.0	µg/L	20.0	1	06/26/08 4:13	AA 34560
N-Nitroso-di-n-butylamine		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
N-Nitrosodiethylamine		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
N-Nitrosodimethylamine		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
N-Nitrosodiphenylamine		< 10.0	µg/L	10.0	1	06/26/08 4:13	AA 34560
N-Nitrosodi-n-propylamine		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
Pentachlorophenol		< 10.0	µg/L	10.0	1	06/26/08 4:13	AA 34560
Phenanthrene		6.55	µg/L	2.00	1	06/26/08 4:13	AA 34560
Phenol		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
Pyrene		8.07	µg/L	2.00	1	06/26/08 4:13	AA 34560
Pyridine		< 10.0	µg/L	10.0	1	06/26/08 4:13	AA 34560
1,2,4,5-Tetrachlorobenzene		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
2,3,4,6-Tetrachlorophenol		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
1,2,4-Trichlorobenzene		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
2,4,5-Trichlorophenol		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
2,4,6-Trichlorophenol		< 5.00	µg/L	5.00	1	06/26/08 4:13	AA 34560
Surrogate: Nitrobenzene-d5		58 %	Limits: 29-110	1	06/26/08 4:13	AA	34560
Surrogate: 2-Fluorobiphenyl		56 %	Limits: 38-107	1	06/26/08 4:13	AA	34560
Surrogate: 4-Terphenyl-d14		38 %	Limits: 33-122	1	06/26/08 4:13	AA	34560
Surrogate: Phenol-d6		23 %	Limits: 10-115	1	06/26/08 4:13	AA	34560

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	II Prepped / Analyzed out of holding time.
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL

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ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213 2400 Fax (901) 213 2440
 "A Laboratory Management Partner"

TerraTherm, Inc.
 10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-171-0239

Lab ID 0806311-001B

Field ID Effluent

Sample Number 72159

Project **Dunn Ave.**
 Description

Project No. 7-010

Site **Memphis, TN**

Report of Analysis

Received 06/19/08

Matrix **Aqueous**

Sampled 06/19/08 0:00

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 20695 -Date/Time Prepped 06/20/08 18:13

Compound	Result	Units	ML	DF	Date/Time Analyzed	By	Analytical Batch
Surrogate 2,4,6-Tribromophenol	49 %	Limits	40-125	1	06/26/08 4:13	AA	34560
Surrogate 2-Fluorophenol	23 %	Limits	20-110	1	06/26/08 4:13	AA	34560

Qualifiers/ Definitions

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns

- * I Recoveries affected by interferences or high background
- DF Dilution Factor
- H Prepped / Analyzed out of holding time.
- M Minimum value
- SQL Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

07/01/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

1000430

Cooler Receipt Form

Customer Number: 03896

Customer Name: TerraTherm, Inc.

08-171-0239

Report Number: 08-171-0239

Shipping Method

☐ FedEx ☐ UPS ☐ US Postal ☒ Client ☐ LMP ☐ Courier ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Rebekah Ross

Date & Time: 06-19-2008 15:59



Environmental Testing & Consulting, Inc. 2790 Whitten Road
Memphis, TN 38133 (901) 213-2400 Fax (901) 213-2440
clientservices@etcmemphis.com

Company Name

TERRATHERM

Project/Site (Include State)

Owen Rd Memphis TN

Type of Event: Single Daily Weekly Monthly

Project # 7-010

Project Manager/Contact

Ken Parker

of Cont.

Sample ID/Number

Depth

Sample Date

Sample Time

Matrix

Type

Grab/Comp

Blank/Cooler Temp

Remarks

Method of Shipment

Relinquished By (sign)

Relinquished By (sign)

Relinquished By (sign)

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ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

8/7/2008

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg, MA, 01450

Ref: Analytical Testing
Report Number: 08-207-0243
Project Description: Effluent

Dear Mr. Ken Parker:

Environmental Testing and Consulting, Inc. received 1 sample(s) on 7/25/2008 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

The EPA requires that water samples analyzed for pH, dissolved oxygen and total residual chlorine be analyzed in the field. Analyses and results reported which do not indicate "Field" for these parameters were analyzed outside the holding time as specified in Table II of 40 CFR Part 136.3.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA and NELAP.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Nathan Pera
Project Manager

Alabama #40750
Arkansas #88-0650
Illinois #200015
Kentucky #90047
Kentucky UST #41

Louisiana #04015
Mississippi
Oklahoma #9311
Tennessee #02027
Virginia #00106

Florida #E87943
Pennsylvania #68-3195
USDA #S-46279
EPA #TN00012
NELAP #100456

California #05240CA
Texas #T104704180-05-TX



1000433
SL00001



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

03896

TerraTherm, Inc.

Mr. Ken Parker

10 Stevens Rd.

Fitchburg, MA 01450

Project ID :

Description : Effluent

Report Date : 8/7/2008

Report Number : 08-207-0243

REPORT OF ANALYSIS

Received : 7/25/2008

Lab No : 75924

Matrix: Aqueous

Sample ID : Grab

Sampled: 7/25/2008 11:45

Test	Results	Units	MQL	Date / Time Analyzed	By	Analytical Method
pH	3.7	S.U.		07/25/08 11:45	FLD	FIELD
Total Aluminum	0.312	mg/L	0.1	08/01/08 07:44	JTR	SW-6010B
Total Arsenic	<0.01	mg/L	0.01	08/01/08 07:44	JTR	SW-6010B
Total Cadmium	<0.002	mg/L	0.002	08/01/08 07:44	JTR	SW-6010B
Total Chromium	0.010	mg/L	0.005	08/01/08 07:44	JTR	SW-6010B
Total Copper	0.332	mg/L	0.005	08/01/08 07:44	JTR	SW-6010B
Total Iron	6.40	mg/L	0.1	08/01/08 07:44	JTR	SW-6010B
Total Lead	0.055	mg/L	0.006	08/01/08 07:44	JTR	SW-6010B
Total Mercury	<0.0002	mg/L	0.0002	07/30/08 10:04	TJ	SW-7470A
Total Nickel	0.051	mg/L	0.005	08/01/08 07:44	JTR	SW-6010B
Total Zinc	0.644	mg/L	0.01	08/01/08 07:44	JTR	SW-6010B

Qualifiers/ Definitions

MQL

Method Quantitation Limit



ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etc-inc.com

2150 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

CLIENT: TerraTherm, Inc.

Project: Effluent

Lab Order Number: 08-207-0243

CASE NARRATIVE

Date: 08/07/08

ETCAL

Semi-volatile Organics by Method 8270C

Method Blank (21233-LB)

The following target analyte(s) were detected in the method blank associated with the project samples:

Bis(2-ethylhexyl)phthalate: 16.2 ug/L

1000435



ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etc-memphis.com

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax: (901) 213-2440

A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.

Project Effluent
Description

Site **Dunn Ave. Memphis,**
TN

Fitchburg, MA 01480

Project No. 7010

Lab Order Number 08-207-0243

Report of Analysis

Lab ID 0807434-001A

Received 07/25/08

Field ID Grab

Matrix Aqueous

Sample Number 75924

Sampled 07/25/08 11:45

Analytical Method 8260B

Prep Method 5030B

Prep Batch(s) 20997

Date/Time Prepped 07/26/08 18:05

Compound	Result	Units	SQL	DF	Date/Time Analyzed	By	Analytical Batch
Acetone	2.230	µg/L	1,000	50	07/26/08 22:12	LS	35043
Acetonitrile	< 50.0	µg/L	50.0	1	07/26/08 22:42	LS	35043
Acrolein	88.8	µg/L	20.0	1	07/26/08 22:42	LS	35043
Acrylonitrile	< 20.0	µg/L	20.0	1	07/26/08 22:42	LS	35043
Benzene	1.65	µg/L	1.00	1	07/26/08 22:42	LS	35043
Bromobenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Bromochloromethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Bromodichloromethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Bromoform	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Bromomethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
n-Butylbenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
sec-Butylbenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
tert-Butylbenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
2-Butanone (MEK)	64.5	µg/L	20.0	1	07/26/08 22:42	LS	35043
Carbon disulfide	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Carbon tetrachloride	2.43	µg/L	1.00	1	07/26/08 22:42	LS	35043
Chlorobenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Chlorodibromomethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Chloroethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
2-Chloroethyl vinyl ether	< 5.00 M	µg/L	5.00	1	07/26/08 22:42	LS	35043
Chloroform	383	µg/L	50.0	50	07/26/08 22:12	LS	35043
Chloromethane	1.18	µg/L	1.00	1	07/26/08 22:42	LS	35043
2-Chlorotoluene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
4-Chlorotoluene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,2-Dibromo-3-chloropropane	< 5.00	µg/L	5.00	1	07/26/08 22:42	LS	35043
1,2-Dibromoethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Dibromomethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043

Qualifiers/ * Surrogate Recovery outside accepted limits
Definitions B Analyte detected in the associated Method Blank
 E Value exceeds method calibration range
 J Estimated Value Analyte below reported detection limit
 MDL Method Detection Limit (unadjusted)
 MRL Method Reporting Limit
 Q RPD >40% between primary and confirmation columns

* I Recoveries affected by interferences or high background
 DF Dilution Factor
 H Prepped / Analyzed out of holding time.
 M Minimum value
 MQL Method Quantitation Limit (adjusted)
 N Refer to attached Non-Compliance Report
 SQL Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL

7840001
1000436



ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etc-memphis.com

2700 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

TerraTherm, Inc.

10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-207-0243

Lab ID 0807434-001A

Field ID Grab

Sample Number 75924

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 07/25/08

Matrix Aqueous

Sampled 07/25/08 11:45

Analytical Method 8260B

Prep Method	5030B	Prep Batch(s)	20997			Date/Time Prepped	07/26/08 18:05
Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
1,2-Dichlorobenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,3-Dichlorobenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,4-Dichlorobenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Dichlorodifluoromethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1-Dichloroethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,2-Dichloroethane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1-Dichloroethene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
cis-1,2-Dichloroethene	103	µg/L	1.00	1	07/26/08 22:42	LS	35043
trans-1,2-Dichloroethene	21.6	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,2-Dichloropropane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,3-Dichloropropane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
2,2-Dichloropropane	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1-Dichloropropene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
cis-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
trans-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Ethyl acetate	< 10.0	µg/L	10.0	1	07/26/08 22:42	LS	35043
Ethylbenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Hexachlorobutadiene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
2-Hexanone	< 5.00	µg/L	5.00	1	07/26/08 22:42	LS	35043
Iodomethane	< 5.00	µg/L	5.00	1	07/26/08 22:42	LS	35043
Isopropylbenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
4-Isopropyltoluene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Methylene chloride	< 10.0	µg/L	10.0	1	07/26/08 22:42	LS	35043
4-Methyl-2-pentanone	< 5.00	µg/L	5.00	1	07/26/08 22:42	LS	35043
Methyl tert-butyl ether	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Naphthalene	< 5.00	µg/L	5.00	1	07/26/08 22:42	LS	35043
n-Propylbenzene	< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL

1000437
3840001



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2780 Whitten Road

Memphis, Tennessee 38133

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"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-207-0243

Lab ID 0807434-001A

Field ID Grab

Sample Number 75924

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 07/25/08

Matrix Aqueous

Sampled 07/25/08 11:45

Analytical Method 8260B

Prep Method	5030B	Prep Batch(s)	20997			Date/Time	Prepped	07/26/08 18:05
Compound		Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Styrene		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1,1,2-Tetrachloroethane		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1,2,2-Tetrachloroethane		8,550	µg/L	50.0	50	07/26/08 22:12	LS	35043
Tetrachloroethene		6.04	µg/L	1.00	1	07/26/08 22:42	LS	35043
Toluene		< 5.00	µg/L	5.00	1	07/26/08 22:42	LS	35043
1,2,3-Trichlorobenzene		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,2,4-Trichlorobenzene		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1,1-Trichloroethane		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,1,2-Trichloroethane		18.1	µg/L	1.00	1	07/26/08 22:42	LS	35043
Trichloroethene		611	µg/L	50.0	50	07/26/08 22:12	LS	35043
Trichlorofluoromethane		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,2,3-Trichloropropane		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,2,4-Trimethylbenzene		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
1,3,5-Trimethylbenzene		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Vinyl acetate		< 10.0	µg/L	10.0	1	07/26/08 22:42	LS	35043
Vinyl chloride		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
m,p-Xylene		< 2.00	µg/L	2.00	1	07/26/08 22:42	LS	35043
o-Xylene		< 1.00	µg/L	1.00	1	07/26/08 22:42	LS	35043
Surrogate:	Dibromofluoromethane	118	%	Limits: 75-125	1	07/26/08 22:42	LS	35043
Surrogate:	Toluene-d8	107	%	Limits: 85-120	1	07/26/08 22:42	LS	35043
Surrogate:	4-Bromofluorobenzene	107	%	Limits: 85-118	1	07/26/08 22:42	LS	35043
Surrogate:	1,2-Dichloroethane-d4	124	%	Limits: 72-132	1	07/26/08 22:42	LS	35043
Surrogate:	Dibromofluoromethane	114	%	Limits: 75-125	50	07/26/08 22:12	LS	35043
Surrogate:	Toluene-d8	104	%	Limits: 85-120	50	07/26/08 22:12	LS	35043
Surrogate:	4-Bromofluorobenzene	108	%	Limits: 85-118	50	07/26/08 22:12	LS	35043
Surrogate:	1,2-Dichloroethane-d4	122	%	Limits: 72-132	50	07/26/08 22:12	LS	35043

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	ML	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Vinton Road Memphis, Tennessee 38113 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-207-0243

Lab ID 0807434-001B

Field ID Grab

Sample Number 75924

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 07/25/08

Matrix Aqueous

Sampled 07/25/08 11:45

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 21233

Date/Time Prepped 07/31/08 10:45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Acenaphthene	5.26	µg/L	2.02	1	08/05/08 2:05	AA	35188
Acenaphthylene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Acetophenone	16.8	µg/L	5.05	1	08/05/08 2:05	AA	35188
Aniline	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Anthracene	3.83	µg/L	2.02	1	08/05/08 2:05	AA	35188
Benzidine	< 20.2 M	µg/L	20.2	1	08/05/08 2:05	AA	35188
Benzo(a)anthracene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Benzo(b)fluoranthene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Benzo(k)fluoranthene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Benzo(g,h,i)perylene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Benzo(a)pyrene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Benzoic acid	22.0	µg/L	10.1	1	08/05/08 2:05	AA	35188
Benzyl alcohol	16.6	µg/L	10.1	1	08/05/08 2:05	AA	35188
Bis(2-chloroethyl)ether	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Bis(2-chloroethoxy)methane	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Bis(2-chloroisopropyl)ether	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Bis(2-ethylhexyl)phthalate	26.6 B	µg/L	10.1	1	08/05/08 2:05	AA	35188
4-Bromophenyl phenyl ether	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Butyl benzyl phthalate	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Carbazole	13.4	µg/L	5.05	1	08/05/08 2:05	AA	35188
4-Chloroaniline	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
4-Chloro-3-methylphenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
2-Chloronaphthalene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
2-Chlorophenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
4-Chlorophenyl phenyl ether	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Chrysene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Dibenz(a,h)anthracene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL

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2790 Winton Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Project **Effluent**
Description

Site **Dunn Ave. Memphis,**
TN

Fitchburg, MA 01480

Project No. **7010**

Lab Order Number **08-207-0243**

Report of Analysis

Lab ID **0807434-001B**

Received **07/25/08**

Field ID **Grab**

Matrix **Aqueous**

Sample Number **75924**

Sampled **07/25/08 11:45**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 21233 Date/Time Prepped 07/31/08 10 45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Dibenzofuran	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
1,2-Dichlorobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
1,3-Dichlorobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
1,4-Dichlorobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Di-n-butyl phthalate	52.2	µg/L	5.05	1	08/05/08 2:05	AA	35188
3,3'-Dichlorobenzidine	< 10.1	µg/L	10.1	1	08/05/08 2:05	AA	35188
2,4-Dichlorophenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
2,6-Dichlorophenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Diethyl phthalate	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
3,3'-Dimethylbenzidine	< 10.1 M	µg/L	10.1	1	08/05/08 2:05	AA	35188
2,4-Dimethylphenol	5.29	µg/L	5.05	1	08/05/08 2:05	AA	35188
Dimethyl phthalate	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
4,6-Dinitro-2-methylphenol	< 10.1	µg/L	10.1	1	08/05/08 2:05	AA	35188
2,4-Dinitrophenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
2,4-Dinitrotoluene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
2,6-Dinitrotoluene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Di-n-octyl phthalate	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Fluoranthene	35.4	µg/L	2.02	1	08/05/08 2:05	AA	35188
Fluorene	4.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Hexachlorobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Hexachlorobutadiene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Hexachlorocyclopentadiene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Hexachloroethane	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
Indeno(1,2,3-cd)pyrene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
Isophorone	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188
2-Methylnaphthalene	< 2.02	µg/L	2.02	1	08/05/08 2:05	AA	35188
2-Methylphenol	8.41	µg/L	5.05	1	08/05/08 2:05	AA	35188

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H Prepped / Analyzed out of holding time
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL



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"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-207-0243

Lab ID 0807434-001B

Field ID Grab

Sample Number 75924

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 07/25/08

Matrix Aqueous

Sampled 07/25/08 11:45

Analytical Method 8270C

Prep Method	3510C	Prep Batch(s)	21233			Date/Time Prepped	07/31/08 10:45	
Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch	
3&4-Methylphenol	25.7	µg/L	5.05	1	08/05/08 2:05	AA	35188	
Naphthalene	2.79	µg/L	2.02	1	08/05/08 2:05	AA	35188	
2-Nitroaniline	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
3-Nitroaniline	< 10.1	µg/L	10.1	1	08/05/08 2:05	AA	35188	
4-Nitroaniline	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
Nitrobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
2-Nitrophenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
4-Nitrophenol	< 20.2	µg/L	20.2	1	08/05/08 2:05	AA	35188	
N-Nitroso-di-n-butylamine	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
N-Nitrosodiethylamine	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
N-Nitrosodimethylamine	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
N-Nitrosodiphenylamine	< 10.1	µg/L	10.1	1	08/05/08 2:05	AA	35188	
N-Nitrosodi-n-propylamine	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
Pentachlorophenol	< 10.1	µg/L	10.1	1	08/05/08 2:05	AA	35188	
Phenanthrene	27.8	µg/L	2.02	1	08/05/08 2:05	AA	35188	
Phenol	40.1	µg/L	5.05	1	08/05/08 2:05	AA	35188	
Pyrene	23.5	µg/L	2.02	1	08/05/08 2:05	AA	35188	
Pyridine	35.1	µg/L	10.1	1	08/05/08 2:05	AA	35188	
1,2,4,5-Tetrachlorobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
2,3,4,6-Tetrachlorophenol	11.9	µg/L	5.05	1	08/05/08 2:05	AA	35188	
1,2,4-Trichlorobenzene	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
2,4,5-Trichlorophenol	< 5.05	µg/L	5.05	1	08/05/08 2:05	AA	35188	
2,4,6-Trichlorophenol	143	µg/L	50.5	10	08/06/08 20:31	AA	35188	
Surrogate: Nitrobenzene-d5		42 %	Limits	29-110	1	08/05/08 2:05	AA	35188
Surrogate: 2-Fluorobiphenyl		68 %	Limits	38-107	1	08/05/08 2:05	AA	35188
Surrogate: 4-Terphenyl-d14		90 %	Limits	33-122	1	08/05/08 2:05	AA	35188
Surrogate: Phenol-d6		23 %	Limits	10-115	1	08/05/08 2:05	AA	35188

Qualifiers/
Definitions

* Surrogate Recovery outside accepted limits

B Analyte detected in the associated Method Blank

E Value exceeds method calibration range

J Estimated Value Analyte below reported detection limit

MDL Method Detection Limit (unadjusted)

MRL Method Reporting Limit

Q RPD >40% between primary and confirmation columns

* I Recoveries affected by interferences or high background

DF Dilution Factor

H Prepped / Analyzed out of holding time.

M Minimum value

MQL Method Quantitation Limit (adjusted)

N Refer to attached Non-Compliance Report

SQL Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL

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2750 Whitten Road

Memphis, Tennessee 38133

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10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-207-0243

Lab ID 0807434-001B

Field ID Grab

Sample Number 75924

Project Effluent
Description

Project No 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 07/25/08

Matrix Aqueous

Sampled 07/25/08 11:45

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 21233

Date/Time Prepped 07/31/08 10:45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Surrogate 2,4,6-Tribromophenol	72 %	Limits	40-125	1	08/05/08 2:05	AA	35188
Surrogate 2-Fluorophenol	13 % *	Limits	20-110	1	08/05/08 2:05	AA	35188

Qualifiers/ Definitions

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns

* I Recoveries affected by interferences or high background

- DF Dilution Factor
- H Prepped / Analyzed out of holding time
- M Minimum value
- MQL Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

08/07/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
A Laboratory Management Partner

Cooler Receipt Form

Customer Number: **03896**

Customer Name: **TerraTherm, Inc.**

08-207-0243

Report Number: **08-207-0243**

Shipping Method

☐ FedEx ☐ UPS ☐ US Postal ☐ Client ☒ LMP ☐ Courier ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Randy Thomas

Date & Time: 07-25-2008 12:25



Environmental Testing & Consulting, Inc. 2790 Whitten Road
Memphis, TN 38133 (901) 213-2400 Fax (901) 213-2440
clientservices@etcmemphis.com

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08-207-0243
03896
Jul 25 2008
2:18PM



TerraTherm, Inc.
Effluent

Company Name TerraTherm		Phone # (901) 213-0300		Fax # (901) 213-2440	
Project/Site (Include State)		PO #		Eco	
Type of Event Single		Daily		Weekly	
Project #		Monthly		Quarterly	
Project Manager/Contact Ben Parker		E-Mail Kparker@TerraTherm.com		Annual	
Matrix		1 Wastewater		4 Sludge	
2 Aqueous		5 Oil/Solvent		6 Other	
3 Soil/Sediment		Sample Date		Sample Time	
Depth		Matrix		Type	
# of Cont.		Grab/Comp			
7 Effluent		7-25-08/195		1 Grab	
Comments		PH 3.7			
Wastewater		RCRA			
UST		Risk Based Limits			
TRRP 13		LA RECAP			
USACE					
Note special di		A			
Meta: ALH, C, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z		VOCs by 82008		PH (Field)	
SIXES by 82708					
DATE		TIME		1 - Routine Sampling Events Only	
DATE		TIME		2 - Surcharges may apply	
DATE		TIME			
RECEIVED BY (sign)		RECEIVED BY (sign)		RECEIVED BY LAB (print/sign)	
DATE		DATE		DATE	
7-25-08/195		7-25-08/195		7-25-08/195	
Blank/Cooler Temp		Remarks			
7-25-08/195		7-25-08/195			
Method of Shipment		Blank/Cooler Temp		Remarks	
7-25-08/195		7-25-08/195			
RELINQUISHED BY (sign)		RELINQUISHED BY (sign)		RELINQUISHED BY (sign)	
DATE		DATE		DATE	
7-25-08/195		7-25-08/195		7-25-08/195	
RELINQUISHED BY (sign)		RELINQUISHED BY (sign)		RELINQUISHED BY (sign)	
DATE		DATE		DATE	
7-25-08/195		7-25-08/195		7-25-08/195	

Please return ETC Sample Kit Request Form with chain of custody.
Distribution: Original accompanies samples to the laboratory.



August 29, 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Thermal SVE Wastewater – Effluent Analysis
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc. (e²M), on behalf of the Defense Logistics Agency, hereby submits analytical results, collected on 19 August 2008, of the treated condensate generated from the thermal soil vapor extraction (TSVE) system on Dunn Field at Defense Depot Memphis, Tennessee (DDMT). Approval to discharge condensate from the TSVE system was granted by the City of Memphis on 7 September 2007. As noted in our request dated 6 September 2007, the condensate will be treated with liquid-phase granular activated carbon (GAC) prior to discharge and samples will be collected during startup and quarterly thereafter. The treated condensate is pumped to a 500-gallon storage tank and then, as the tank approaches capacity, is pumped into a single conveyance line for discharge. The storage tank also receives non-contact cooling water through blow-down water from a cooling tower utilized by the TSVE system. (The cooling water is obtained from a City of Memphis water supply connection on Dunn Avenue.) The water is discharged via a single conveyance line to the City of Memphis sewer system through the existing discharge line utilized for the interim remedial action (IRA) groundwater recovery system at Dunn Field.

On 19 August 2008, a grab sample of the TSVE system discharge was collected at the discharge location (after the 500-gallon storage tank). The sample was submitted to Environmental Testing & Consulting, Inc., in Memphis, Tennessee for expedited analysis. The sample was analyzed for metals, volatile and semi-volatile organic compounds, and pH in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the complete laboratory report are attached. All volatile organic compounds and pH are within discharge limits. Aluminum, copper, iron, and Bis(2-ethylhexyl)Phthalate exceeded the monthly average maximum. Aluminum and Bis(2-ethylhexyl)Phthalate also exceeded the one day maximum.

The results are near concentrations reported for the system discharge sample collected on 19 June 2008 and were sent to the City of Memphis via U.S. Mail on 19 August 2008. Per discussions with the City of Memphis regarding the 19 June 2008 samples, the concentrations of those compounds that exceed the discharge limits do not pose a significant concern to the City. e²M will continue to monitor the T-SVE system discharge by collecting samples on a

engineering-environmental Management, Inc.

11171 Sun Center Drive, Suite 210, Rancho Cordova, CA 95670 • (916) 852-7792 • Fax (916) 852-7836



Akil AL-Chokhachi
August 29, 2008
Page 2 of 2

monthly basis. The next sample is scheduled to be collected during the week of 22 September 2008.

e²M has been unsuccessful in contacting the you regarding these results. Per a conversation with Ms. Kim Curan on 28 September 2008, we are sending a copy these results to her. If you need additional information, please contact the undersigned at (916) 852-7792 or steven.herrera@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Steven Herrera, P.E.
IRA Task Manager

c: Kim Curan, City of Memphis – Industrial Monitoring
Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Thomas Holmes, e²M

Summary of Analytical Results
Thermal SVE Discharge
Defense Depot Memphis, Tennessee
Project No. FA8903-04D-8722-0019
e²M Project 3202-043

Sample Identification	TSVE System Discharge ⁽¹⁾	City of Memphis Industrial Permit Discharge Limits	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	8/19/2008		
Discharge Flow Rate (gpm)	1.5		
pH ⁽²⁾	7.21	5.5 to 10.0	5.5 to 10.0
TAL Metals⁽³⁾	mg/L	mg/L	mg/L
Aluminum	4.57	1.000	2.000
Arsenic	ND	0.040	0.100
Cadmium	ND	0.010	0.020
Chromium	0.016	0.200	0.400
Copper	0.206	0.200	0.400
Iron	14.6	10.000	20.000
Lead	0.02	0.150	0.300
Mercury	0.0007	0.001	0.002
Nickel	0.038	0.100	0.300
Zinc	0.219	0.300	1.000
TCL Volatile Organic Compounds⁽⁴⁾	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	10	20
1,1,2,2-Tetrachloroethane	417	500	1000
1,1,2-Trichloroethane	2.8	50	100
1,1-Dichloroethene	ND	50	100
2-Butanone (MEK)	50	NS	NS
Acetone	2080	NS	NS
Carbon tetrachloride	ND	20	40
Chloroform	67.5	100	200
Chloromethane	3.75	NS	NS
cis-1,2-Dichloroethene	30.4	80	100
Methylene chloride	ND	10	20
Tetrachloroethene	ND	60	120
Toluene	ND	20	40
trans-1,2-Dichloroethene	4.93	50	100
Trichloroethene	66.9	400	800
TCL Semi-volatile Organic Compounds⁽⁵⁾	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	23	10	20
Di-n-butyl Phthalate	5.51	30	60
Fluoranthene	4.38	NS	NS
Naphthalene	ND	10	20
Phenanthrene	2.13	NS	NS
Phenol	ND	10	20
Pyridine	18.3	NS	NS

Notes:

- (1) Sample collected at effluent of condensate treatment system. Condensate is mixed with cooling water prior to discharge to the City of Memphis via the IRA System discharge line.
 - (2) pH analyses performed by EPA Method 150.1. pH for the TSVE system is measured in the field.
 - (3) Target Analyte List (TAL) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A).
 - (4) TCL Volatile Organic analyses performed by EPA Method 8260B.
 - (5) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C.
- NS = No standard listed in the Industrial Wastewater Discharge Permit
ND = Not detected
mg/L = milligrams per liter
ug/L = micrograms per liter
TSVE = Thermal Soil Vapor Extraction
Bold number indicates that value exceeds permit maximum

1000447
3440001



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

8/22/2008

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg, MA, 01450

Ref: Analytical Testing
Report Number: 08-232-0250
Project Description: Dunn Field-Memphis Defense Depot

Dear Mr. Ken Parker:

received 1 sample(s) on 8/19/2008 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

The EPA requires that water samples analyzed for pH, dissolved oxygen and total residual chlorine be analyzed in the field. Analyses and results reported which do not indicate "Field" for these parameters were analyzed outside the holding time as specified in Table II of 40 CFR Part 136.3.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA and NELAP.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Nathan Pera
Project Manager

Alabama #40750
Arkansas #88-0650
Illinois #200015
Kentucky #90047
Kentucky UST #41

Louisiana #04015
Mississippi
Oklahoma #9311
Tennessee #02027
Virginia #00106

Florida #E87943
Pennsylvania #68-3195
USDA #S-46279
EPA #TN00012
NELAP #100456

California #05240CA
Texas #T104704180-05-TX





ENVIRONMENTAL TESTING & CONSULTING, Inc.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

03896

TerraTherm, Inc.

Mr. Ken Parker

10 Stevens Rd.

Fitchburg, MA 01450

Project ID :

Description : Dunn Field-Memphis Defense Depot

TN

Report Date : 8/22/2008

Report Number : 08-232-0250

REPORT OF ANALYSIS

Received : 8/19/2008

Lab No : 78362

Matrix: Aqueous

Sample ID : POTW

Sampled: 8/19/2008 0:00

Test	Results	Units	MQL	Date / Time Analyzed	By	Analytical Method
pH	7.21	s.u.		08/19/08 00:00	FLD	FIELD
Total Aluminum	4.57	mg/L	0.1	08/20/08 09:05	JTR	SW-6010B
Total Arsenic	<0.01	mg/L	0.01	08/20/08 09:05	JTR	SW-6010B
Total Cadmium	<0.002	mg/L	0.002	08/20/08 09:05	JTR	SW-6010B
Total Chromium	0.016	mg/L	0.005	08/20/08 09:05	JTR	SW-6010B
Total Copper	0.206	mg/L	0.005	08/20/08 09:05	JTR	SW-6010B
Total Iron	14.6	mg/L	0.1	08/20/08 09:05	JTR	SW-6010B
Total Lead	0.02	mg/L	0.006	08/20/08 09:05	JTR	SW-6010B
Total Mercury	0.0007	mg/l	0.0002	08/22/08 00:00	GTW	SW-7470A
Total Nickel	0.038	mg/L	0.005	08/20/08 09:05	JTR	SW-6010B
Total Zinc	0.219	mg/L	0.01	08/20/08 09:05	JTR	SW-6010B

Qualifiers/ Definitions

MQL

Method Quantitation Limit



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2449
 "A Laboratory Management Partner"

TerraTherm, Inc.
 10 Stevens Rd.

Project Effluent
 Description

Site Dunn Ave. Memphis,
 TN

Project No. 7010

Fitchburg, MA 01480

Lab Order Number 08-232-0250

Lab ID 0808304-001A

Field ID POTW

Sample Number 78362

Report of Analysis

Received 08/19/08

Matrix Aqueous

Sampled 08/19/08 0:00

Analytical Method 8260B

Prep Method 5030B Prep Batch(s) 21486 Date/Time Prepped 08/21/08 10:01

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Acetone	2,080	µg/L	400	20	08/21/08 13:26	VS	35469
Acetonitrile	< 50.0	µg/L	50.0	1	08/20/08 13:20	VS	35443
Acrolein	< 20.0	µg/L	20.0	1	08/20/08 13:20	VS	35443
Acrylonitrile	< 20.0	µg/L	20.0	1	08/20/08 13:20	VS	35443
Benzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Bromobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Bromochloromethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Bromodichloromethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Bromoform	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Bromomethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
n-Butylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
sec-Butylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
tert-Butylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
2-Butanone (MEK)	50.0	µg/L	20.0	1	08/20/08 13:20	VS	35443
Carbon disulfide	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Carbon tetrachloride	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Chlorobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Chlorodibromomethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Chloroethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
2-Chloroethyl vinyl ether	< 5.00 M	µg/L	5.00	1	08/20/08 13:20	VS	35443
Chloroform	67.5	µg/L	1.00	1	08/20/08 13:20	VS	35443
Chloromethane	3.75	µg/L	1.00	1	08/20/08 13:20	VS	35443
2-Chlorotoluene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
4-Chlorotoluene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,2-Dibromo-3-chloropropane	< 5.00	µg/L	5.00	1	08/20/08 13:20	VS	35443
1,2-Dibromoethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Dibromomethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H Prepped / Analyzed out of holding time.
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-232-0250

Lab ID 0808304-001A

Field ID POTW

Sample Number 78362

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 08/19/08

Matrix Aqueous

Sampled 08/19/08 0:00

Analytical Method 8260B

Prep Method 5030B Prep Batch(s) 21486 Date/Time Prepped 08/21/08 10:01

Compound	Result	Units	ML	DF	Date/Time Analyzed	By	Analytical Batch
1,2-Dichlorobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,3-Dichlorobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,4-Dichlorobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Dichlorodifluoromethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1-Dichloroethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,2-Dichloroethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1-Dichloroethene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
cis-1,2-Dichloroethene	30.4	µg/L	1.00	1	08/20/08 13:20	VS	35443
trans-1,2-Dichloroethene	4.93	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,2-Dichloropropane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,3-Dichloropropane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
2,2-Dichloropropane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1-Dichloropropene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
cis-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
trans-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Ethyl acetate	< 10.0	µg/L	10.0	1	08/20/08 13:20	VS	35443
Ethylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Hexachlorobutadiene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
2-Hexanone	< 5.00	µg/L	5.00	1	08/20/08 13:20	VS	35443
Iodomethane	< 5.00	µg/L	5.00	1	08/20/08 13:20	VS	35443
Isopropylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
4-Isopropyltoluene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Methylene chloride	< 10.0	µg/L	10.0	1	08/20/08 13:20	VS	35443
4-Methyl-2-pentanone	< 5.00	µg/L	5.00	1	08/20/08 13:20	VS	35443
Methyl tert-butyl ether	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Naphthalene	< 5.00	µg/L	5.00	1	08/20/08 13:20	VS	35443
n-Propylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	ML	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL

0840001
1000451

ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etcinc.com

2750 Whitten Road

Memphis, Tennessee 38133

(901) 213-7490

Fax (901) 213-3440

"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-232-0250

Lab ID 0808304-001A

Field ID POTW

Sample Number 78362

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 08/19/08

Matrix Aqueous

Sampled 08/19/08 0:00

Analytical Method 8260B

Prep Method	5030B	Prep Batch(s)	21486			Date/Time Prepped	08/21/08 10:01
Compound	Result	Units	MLQ	DF	Date/Time Analyzed	By	Analytical Batch
Styrene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1,1,2-Tetrachloroethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1,2,2-Tetrachloroethane	417	µg/L	20.0	20	08/21/08 13:26	VS	35469
Tetrachloroethene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Toluene	< 5.00	µg/L	5.00	1	08/20/08 13:20	VS	35443
1,2,3-Trichlorobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,2,4-Trichlorobenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1,1-Trichloroethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,1,2-Trichloroethane	2.80	µg/L	1.00	1	08/20/08 13:20	VS	35443
Trichloroethene	66.9	µg/L	1.00	1	08/20/08 13:20	VS	35443
Trichlorofluoromethane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,2,3-Trichloropropane	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,2,4-Trimethylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
1,3,5-Trimethylbenzene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Vinyl acetate	< 10.0	µg/L	10.0	1	08/20/08 13:20	VS	35443
Vinyl chloride	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
m,p-Xylene	< 2.00	µg/L	2.00	1	08/20/08 13:20	VS	35443
o-Xylene	< 1.00	µg/L	1.00	1	08/20/08 13:20	VS	35443
Surrogate: Dibromofluoromethane	96 %	Limits: 75-125		1	08/20/08 13:20	VS	35443
Surrogate: Toluene-d8	99 %	Limits: 85-120		1	08/20/08 13:20	VS	35443
Surrogate: 4-Bromofluorobenzene	104 %	Limits: 85-118		1	08/20/08 13:20	VS	35443
Surrogate: 1,2-Dichloroethane-d4	111 %	Limits: 72-132		1	08/20/08 13:20	VS	35443
Surrogate: Dibromofluoromethane	114 %	Limits: 75-125		20	08/21/08 13:26	VS	35469
Surrogate: Toluene-d8	107 %	Limits: 85-120		20	08/21/08 13:26	VS	35469
Surrogate: 4-Bromofluorobenzene	109 %	Limits: 85-118		20	08/21/08 13:26	VS	35469
Surrogate: 1,2-Dichloroethane-d4	135 % *	Limits: 72-132		20	08/21/08 13:26	VS	35469

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
E Value exceeds method calibration range		H Prepped / Analyzed out of holding time
J Estimated Value Analyte below reported detection limit		M Minimum value
MDL Method Detection Limit (unadjusted)		MLQ Method Quantitation Limit (adjusted)
MRL Method Reporting Limit		N Refer to attached Non-Compliance Report
Q RPD >40% between primary and confirmation columns		SQL Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Project **Effluent**
Description

Site **Dunn Ave. Memphis,**
TN

Fitchburg, MA 01480

Project No. **7010**

Lab Order Number **08-232-0250**

Report of Analysis

Lab ID **0808304-001B**

Received **08/19/08**

Field ID **POTW**

Matrix **Aqueous**

Sample Number **78362**

Sampled **08/19/08 0:00**

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 21464

Date/Time Prepped 08/20/08 10:10

Compound	Result	Units	ML	DF	Date/Time Analyzed	By	Analytical Batch
Acenaphthene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Acenaphthylene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Acetophenone	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Aniline	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Anthracene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Benzidine	< 20.0 M	µg/L	20.0	1	08/20/08 18:05	AA	35459
Benzo(a)anthracene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Benzo(b)fluoranthene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Benzo(k)fluoranthene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Benzo(g,h,i)perylene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Benzo(a)pyrene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Benzoic acid	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
Benzyl alcohol	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
Bis(2-chloroethyl)ether	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Bis(2-chloroethoxy)methane	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Bis(2-chloroisopropyl)ether	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Bis(2-ethylhexyl)phthalate	23.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
4-Bromophenyl phenyl ether	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Butyl benzyl phthalate	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Carbazole	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
4-Chloroaniline	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
4-Chloro-3-methylphenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2-Chloronaphthalene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2-Chlorophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
4-Chlorophenyl phenyl ether	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Chrysene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Dibenz(a,h)anthracene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459

Qualifiers/ * Surrogate Recovery outside accepted limits
Definitions B Analyte detected in the associated Method Blank
E Value exceeds method calibration range
J Estimated Value Analyte below reported detection limit
MDL Method Detection Limit (unadjusted)
MRL Method Reporting Limit
Q RPD >40% between primary and confirmation columns

* I Recoveries affected by interferences or high background
DF Dilution Factor
H Prepped / Analyzed out of holding time
M Minimum value
ML Method Quantitation Limit (adjusted)
N Refer to attached Non-Compliance Report
SQL Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL

0000453



ENVIRONMENTAL TESTING & CONSULTING, INC.

2760 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.

Project Effluent
Description

Site Dunn Ave. Memphis,
TN

Fitchburg, MA 01480

Project No. 7010

Lab Order Number 08-232-0250

Report of Analysis

Lab ID 0808304-001B

Received 08/19/08

Field ID POTW

Matrix Aqueous

Sample Number 78362

Sampled 08/19/08 0:00

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 21464 Date/Time Prepped 08/20/08 10:10

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Dibenzofuran	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
1,2-Dichlorobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
1,3-Dichlorobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
1,4-Dichlorobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Di-n-butyl phthalate	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
3,3'-Dichlorobenzidine	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
2,4-Dichlorophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2,6-Dichlorophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Diethyl phthalate	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
3,3'-Dimethylbenzidine	< 10.0 M	µg/L	10.0	1	08/20/08 18:05	AA	35459
2,4-Dimethylphenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Dimethyl phthalate	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
2,4-Dinitrophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2,4-Dinitrotoluene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2,6-Dinitrotoluene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Di-n-octyl phthalate	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Fluoranthene	4.38	µg/L	2.00	1	08/20/08 18:05	AA	35459
Fluorene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Hexachlorobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Hexachlorobutadiene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Hexachlorocyclopentadiene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Hexachloroethane	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Indeno(1,2,3-cd)pyrene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Isophorone	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2-Methylnaphthalene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
2-Methylphenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213 2400 Fax (901) 213 2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-232-0250

Lab ID 0808304-001B

Field ID POTW

Sample Number 78362

Project Effluent
Description

Project No. 7010

Site Dunn Ave. Memphis,
TN

Report of Analysis

Received 08/19/08

Matrix Aqueous

Sampled 08/19/08 0:00

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 21464 Date/Time Prepped 08/20/08 10:10

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
3&4-Methylphenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Naphthalene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
2-Nitroaniline	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
3-Nitroaniline	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
4-Nitroaniline	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Nitrobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2-Nitrophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
4-Nitrophenol	< 20.0	µg/L	20.0	1	08/20/08 18:05	AA	35459
N-Nitroso-di-n-butylamine	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
N-Nitrosodiethylamine	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
N-Nitrosodimethylamine	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
N-Nitrosodiphenylamine	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
N-Nitrosodi-n-propylamine	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Pentachlorophenol	< 10.0	µg/L	10.0	1	08/20/08 18:05	AA	35459
Phenanthrene	2.13	µg/L	2.00	1	08/20/08 18:05	AA	35459
Phenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Pyrene	< 2.00	µg/L	2.00	1	08/20/08 18:05	AA	35459
Pyridine	18.3	µg/L	10.0	1	08/20/08 18:05	AA	35459
1,2,4,5-Tetrachlorobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2,3,4,6-Tetrachlorophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
1,2,4-Trichlorobenzene	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2,4,5-Trichlorophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
2,4,6-Trichlorophenol	< 5.00	µg/L	5.00	1	08/20/08 18:05	AA	35459
Surrogate: Nitrobenzene-d5	71 %	Limits: 29-110	1	08/20/08 18:05	AA	35459	
Surrogate: 2-Fluorobiphenyl	68 %	Limits: 38-107	1	08/20/08 18:05	AA	35459	
Surrogate: 4-Terphenyl-d14	64 %	Limits: 33-122	1	08/20/08 18:05	AA	35459	
Surrogate: Phenol-d6	20 %	Limits: 10-115	1	08/20/08 18:05	AA	35459	

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	II Prepped / Analyzed out of holding time
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	ML Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL

1000455



ENVIRONMENTAL TESTING & CONSULTING, INC.

2780 Whitten Road Memphis, Tennessee 38133 (901) 213 2400 Fax (901) 213 2440
 "A Laboratory Management Partner"

TerraTherm, Inc.
 10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number **08-232-0250**

Lab ID **0808304-001B**

Field ID **POTW**

Sample Number **78362**

Project **Effluent**
 Description

Project No. **7010**

Site **Dunn Ave. Memphis, TN**

Report of Analysis

Received **08/19/08**

Matrix **Aqueous**

Sampled **08/19/08 0:00**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 21464 Date/Time Prepped 08/20/08 10:10

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Surrogate. 2,4,6-Tribromophenol		76 %	Limits: 40-125	1	08/20/08 18:05	AA	35459
Surrogate. 2-Fluorophenol		32 %	Limits: 20-110	1	08/20/08 18:05	AA	35459

Qualifiers/ Definitions

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns
- * I Recoveries affected by interferences or high background
- DF Dilution Factor
- II Prepped / Analyzed out of holding time.
- M Minimum value
- MQL Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

08/21/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

Cooler Receipt Form

Customer Number: 03896

Customer Name: TerraTherm, Inc.

08-232-0250

Report Number: 08-232-0250

Shipping Method

☐ FedEx
 ☐ UPS
 ☐ US Postal
 ☐ Client
 ☒ LMP
 ☐ Courier
 ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Rebekah RossDate & Time: 08-19-2008 15:25

Chain of Custody

elijah.conjira@atcmemphis.com

08-232-0250
03896
Aug 19 2008
3:30PM

Terna Therma, Inc.

Dunn Field-Memphis Defense Depot

[illegible]



October 31, 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Thermal SVE Wastewater – Effluent Analysis
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc. (e²M), on behalf of the Defense Logistics Agency, hereby submits analytical results, collected on 19 September 2008, of the treated condensate generated from the thermal soil vapor extraction (TSVE) system on Dunn Field at Defense Depot Memphis, Tennessee (DDMT). Approval to discharge condensate from the TSVE system was granted by the City of Memphis on 7 September 2007. As noted in our request dated 6 September 2007, the condensate will be treated with liquid-phase granular activated carbon (GAC) prior to discharge and samples will be collected during startup and quarterly thereafter. The treated condensate is pumped to a 500-gallon storage tank and then, as the tank approaches capacity, is pumped into a single conveyance line for discharge. The storage tank also receives non-contact cooling water through blow-down water from a cooling tower utilized by the TSVE system. (The cooling water is obtained from a City of Memphis water supply connection on Dunn Avenue.) The water is discharged via a single conveyance line to the City of Memphis sewer system through the existing discharge line utilized for the interim remedial action (IRA) groundwater recovery system at Dunn Field.

On 19 September 2008, a grab sample of the TSVE system discharge was collected at the discharge location (after the 500-gallon storage tank). The sample was submitted to Environmental Testing & Consulting, Inc., in Memphis, Tennessee for analysis. The sample was analyzed for metals, volatile and semi-volatile organic compounds, and pH in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the applicable pages from laboratory report are attached. All volatile organic compounds, semi-volatile organic compounds, pH, and all metals (except aluminum) are within discharge limits. Aluminum exceeded the monthly average maximum.

engineering-environmental Management, Inc.

11171 Sun Center Drive, Suite 210, Rancho Cordova, CA 95670 • (916) 852-7792 • Fax (916) 852-7836

1000459
8000001



Akil AL-Chokhachi
October 31, 2008
Page 2 of 2

The TSVE operations are expected to continue through November 2008. If you need additional information, please contact the undersigned at (916) 852-7792 or steven.herrera@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

A handwritten signature in black ink, appearing to read "Steven Herrera", with a long horizontal flourish extending to the right.

Steven Herrera, P.E.
IRA Task Manager

c: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Thomas Holmes, e²M

Summary of Analytical Results
Thermal SVE Discharge
Defense Depot Memphis, Tennessee
Project No. FA8903-04D-8722-0019
e²M Project 3202-043

Sample Identification	TSVE System Discharge ⁽¹⁾	City of Memphis Industrial Permit Discharge Limits	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	9/19/2008		
Discharge Flow Rate (gpm)	4.2		
pH ⁽²⁾	9.34	5.5 to 10.0	5.5 to 10.0
TAL Metals⁽³⁾	mg/L	mg/L	mg/L
Aluminum	1.12	1.000	2.000
Arsenic	ND	0.040	0.100
Barium	0.024	NS	NS
Cadmium	ND	0.010	0.020
Chromium	0.009	0.200	0.400
Copper	0.137	0.200	0.400
Iron	5.24	10.000	20.000
Lead	0.019	0.150	0.300
Mercury	0.0006	0.001	0.002
Nickel	0.015	0.100	0.300
Zinc	0.192	0.300	1.000
TCL Volatile Organic Compounds⁽⁴⁾	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	10	20
1,1,2,2-Tetrachloroethane	4.88	500	1000
1,1,2-Trichloroethane	ND	50	100
1,1-Dichloroethene	ND	50	100
Acetone	133	NS	NS
Carbon tetrachloride	ND	20	40
Chloroform	13.8	100	200
cis-1,2-Dichloroethene	ND	80	100
Methylene chloride	ND	10	20
Tetrachloroethene	ND	60	120
Toluene	ND	20	40
trans-1,2-Dichloroethene	ND	50	100
Trichloroethene	9.81	400	800
TCL Semi-volatile Organic Compounds⁽⁵⁾	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	ND	10	20
Di-n-butyl Phthalate	ND	30	60
Naphthalene	ND	10	20
Phenol	ND	10	20

Notes:

(1) Sample collected at effluent of condensate treatment system. Condensate is mixed with cooling water prior to discharge to the City of Memphis via the IRA System discharge line.

(2) pH analyses performed by EPA Method 150.1. pH for the TSVE system is measured in the field.

(3) Target Analyte List (TAL) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A)

(4) TCL Volatile Organic analyses performed by EPA Method 8260B

(5) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

ND = Not detected

mg/L = milligrams per liter

ug/L = micrograms per liter

TSVE = Thermal Soil Vapor Extraction

Bold number indicates that value exceeds permit maximum

1000461



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

9/24/2008

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg, MA, 01450

Ref: Analytical Testing
Report Number: 08-263-0247
Project Description: Dunn Field

Dear Mr. Ken Parker:

Environmental Testing and Consulting, Inc. received 3 sample(s) on 9/19/2008 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

The EPA requires that water samples analyzed for pH, dissolved oxygen and total residual chlorine be analyzed in the field. Analyses and results reported which do not indicate "Field" for these parameters were analyzed outside the holding time as specified in Table II of 40 CFR Part 136.3.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA and NELAP.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Nathan Pera
Project Manager

Alabama #40750
Arkansas #88-0650
Illinois #200015
Kentucky #90047
Kentucky UST #41

Louistana #04015
Mississippi
Oklahoma #9311
Tennessee #02027
Virginia #00106

Florida #E87943
Pennsylvania #68-3195
USDA #S-46279
EPA #TN00012
NELAP #100456

California #05240CA
Texas #T104704180-05-TX



1000462



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
 "A Laboratory Management Partner"

03896
 TerraTherm, Inc.
 Mr. Ken Parker
 10 Stevens Rd.
 Fitchburg, MA 01450

Project ID :
 Description : Dunn Field
 Memphis Def Depot-TN

Report Date : 9/24/2008

Report Number : 08-263-0247

REPORT OF ANALYSIS

Received : 9/19/2008

Lab No : 81783

Matrix: Aqueous

Sample ID : POTW

Sampled: 9/19/2008 14:50

Test	Results	Units	ML	Date / Time Analyzed	By	Analytical Method
pH	9.34	s.u.		09/19/08 14:50	FLD	FIELD
Total Aluminum	1.12	mg/L	0.1	09/23/08 23:57	JTR	EPA-200.7
Total Arsenic	<0.01	mg/L	0.01	09/23/08 23:57	JTR	EPA-200.7
Total Barium	0.024	mg/L	0.01	09/23/08 23:57	JTR	EPA-200.7
Total Cadmium	<0.002	mg/L	0.002	09/23/08 23:57	JTR	EPA-200.7
Total Chromium	0.009	mg/L	0.005	09/23/08 23:57	JTR	EPA-200.7
Total Copper	0.137	mg/L	0.005	09/23/08 23:57	JTR	EPA-200.7
Total Iron	5.24	mg/L	0.1	09/23/08 23:57	JTR	EPA-200.7
Total Lead	0.019	mg/L	0.006	09/23/08 23:57	JTR	EPA-200.7
Total Mercury	0.0006	mg/L	0.0002	09/22/08 15:50	TJ	EPA-245.1
Total Nickel	0.015	mg/L	0.005	09/23/08 23:57	JTR	EPA-200.7
Total Selenium	<0.01	mg/L	0.01	09/23/08 23:57	JTR	EPA-200.7
Total Silver	<0.005	mg/L	0.005	09/23/08 23:57	JTR	EPA-200.7
Total Zinc	0.192	mg/L	0.01	09/23/08 23:57	JTR	EPA-200.7

Qualifiers/ Definitions MQL Method Quantitation Limit

1000463
9040001



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

'A Laboratory Management Partner'

CLIENT: TerraTherm, Inc
Project: Dunn Field Def. Depot
Lab Order Number: 08-263-0247

CASE NARRATIVE

Date: 09/24/08

ETCAL

Semi-volatile Organics by Method 8270C

Surrogate Recovery Failure

Surrogates were flagged for recoveries outside QC limits in one of the associated project samples. This sample caused heavy emulsions during the extraction portion of the procedure which may have impacted the surrogate recovery. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits indicating that failing recoveries were due to the sample matrix.

30A0001
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2790 Whittan Road

Memphis, Tennessee 38133

(901) 213-7400

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"A Laboratory Management Partner"

TerraTherm, Inc.

10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-263-0247

Lab ID 0809308-001A

Field ID POTW

Sample Number 81783

Project Description
Dunn Field Def. Depot

Project No. 7010

Site Memphis, TN

Report of Analysis

Received 09/19/08

Matrix Aqueous

Sampled 09/19/08 14:50

Analytical Method 8260B

Prep Method 5030B

Prep Batch(s) 21874

Date/Time Prepped 09/22/08 11:02

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Acetone	133	µg/L	20.0	1	09/22/08 13:55	VS	35930
Acetonitrile	< 50.0	µg/L	50.0	1	09/22/08 13:55	VS	35930
Acrolein	< 20.0	µg/L	20.0	1	09/22/08 13:55	VS	35930
Acrylonitrile	< 20.0	µg/L	20.0	1	09/22/08 13:55	VS	35930
Benzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Bromobenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Bromochloromethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Bromodichloromethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Bromoform	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Bromomethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
n-Butylbenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
sec-Butylbenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
tert-Butylbenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
2-Butanone (MEK)	< 20.0	µg/L	20.0	1	09/22/08 13:55	VS	35930
Carbon disulfide	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Carbon tetrachloride	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Chlorobenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Chlorodibromomethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Chloroethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
2-Chloroethyl vinyl ether	< 5.00 MM	µg/L	5.00	1	09/22/08 13:55	VS	35930
Chloroform	13.8	µg/L	1.00	1	09/22/08 13:55	VS	35930
Chloromethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
2-Chlorotoluene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
4-Chlorotoluene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,2-Dibromo-3-chloropropane	< 5.00	µg/L	5.00	1	09/22/08 13:55	VS	35930
1,2-Dibromoethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Dibromomethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930

Qualifiers/	*	Surrogate Recovery outside accepted limits
Definitions	B	Analyte detected in the associated Method Blank
	E	Value exceeds method calibration range
	J	Estimated Value Analyte below reported detection limit
	MDL	Method Detection Limit (unadjusted)
	MRL	Method Reporting Limit
	Q	RPD >40% between primary and confirmation columns

* I	Recoveries affected by interferences or high background
DF	Dilution Factor
H	Prepped / Analyzed out of holding time.
M	Minimum value
MQL	Method Quantitation Limit (adjusted)
N	Refer to attached Non-Compliance Report
SQL	Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL

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10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-263-0247

Lab ID 0809308-001A

Field ID POTW

Sample Number 81783

Project Dunn Field Def. Depot Site Memphis, TN
Description

Project No. 7010

Report of Analysis

Received 09/19/08

Matrix Aqueous

Sampled 09/19/08 14:50

Analytical Method 8260B

Prep Method 5030B

Prep Batch(s) 21874

Date/Time Prepped 09/22/08 11:02

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
1,2-Dichlorobenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,3-Dichlorobenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,4-Dichlorobenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Dichlorodifluoromethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1-Dichloroethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,2-Dichloroethane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1-Dichloroethene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
cis-1,2-Dichloroethene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
trans-1,2-Dichloroethene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,2-Dichloropropane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,3-Dichloropropane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
2,2-Dichloropropane	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1-Dichloropropene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
cis-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
trans-1,3-Dichloropropene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Ethyl acetate	< 10.0	µg/L	10.0	1	09/22/08 13:55	VS	35930
Ethylbenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Hexachlorobutadiene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
2-Hexanone	< 5.00	µg/L	5.00	1	09/22/08 13:55	VS	35930
Iodomethane	< 5.00	µg/L	5.00	1	09/22/08 13:55	VS	35930
Isopropylbenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
4-Isopropyltoluene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Methylene chloride	< 10.0	µg/L	10.0	1	09/22/08 13:55	VS	35930
4-Methyl-2-pentanone	< 5.00	µg/L	5.00	1	09/22/08 13:55	VS	35930
Methyl tert-butyl ether	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Naphthalene	< 5.00	µg/L	5.00	1	09/22/08 13:55	VS	35930
n-Propylbenzene	< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	II	Prepped / Analyzed out of holding time.
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL



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Lab Order Number 08-263-0247

Lab ID 0809308-001A

Field ID POTW

Sample Number 81783

Project Description
Dunn Field Def. Depot

Project No. 7010

Site Memphis, TN

Report of Analysis

Received 09/19/08

Matrix Aqueous

Sampled 09/19/08 14:50

Analytical Method 8260B

Prep Method 5030B

Prep Batch(s) 21874

Date/Time Prepped 09/22/08 11:02

Compound				Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Styrene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1,1,2-Tetrachloroethane				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1,2,2-Tetrachloroethane				4.88	µg/L	1.00	1	09/22/08 13:55	VS	35930
Tetrachloroethene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Toluene				< 5.00	µg/L	5.00	1	09/22/08 13:55	VS	35930
1,2,3-Trichlorobenzene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,2,4-Trichlorobenzene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1,1-Trichloroethane				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,1,2-Trichloroethane				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Trichloroethene				9.81	µg/L	1.00	1	09/22/08 13:55	VS	35930
Trichlorofluoromethane				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,2,3-Trichloropropane				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,2,4-Trimethylbenzene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
1,3,5-Trimethylbenzene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Vinyl acetate				< 10.0	µg/L	10.0	1	09/22/08 13:55	VS	35930
Vinyl chloride				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
m,p-Xylene				< 2.00	µg/L	2.00	1	09/22/08 13:55	VS	35930
o-Xylene				< 1.00	µg/L	1.00	1	09/22/08 13:55	VS	35930
Surrogate	Dibromofluoromethane			102 %	Limits: 75-125		1	09/22/08 13:55	VS	35930
Surrogate:	Toluene-d8			97 %	Limits: 85-120		1	09/22/08 13:55	VS	35930
Surrogate:	4-Bromofluorobenzene			88 %	Limits: 85-118		1	09/22/08 13:55	VS	35930
Surrogate:	1,2-Dichloroethane-d4			109 %	Limits: 72-132		1	09/22/08 13:55	VS	35930

Qualifiers/ Definitions

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns

- * I Recoveries affected by interferences or high background
- DF Dilution Factor
- H Prepped / Analyzed out of holding time.
- M Minimum value
- ML Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL

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Fitchburg, MA 01480

Lab Order Number 08-263-0247

Lab ID 0809308-001B

Field ID POTW

Sample Number 81783

Project **Dunn Field Def. Depot**
Description

Project No. 7010

Site Memphis, TN

Report of Analysis

Received 09/19/08

Matrix Aqueous

Sampled 09/19/08 14:50

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 21866

Date/Time Prepped 09/22/08 10:45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Acenaphthene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Acenaphthylene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Acetophenone	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Aniline	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Anthracene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Benzidine	< 20.0 MM	µg/L	20.0	1	09/24/08 6:20	AA	35969
Benzo(a)anthracene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Benzo(b)fluoranthene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Benzo(k)fluoranthene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Benzo(g,h,i)perylene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Benzo(a)pyrene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Benzoic acid	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
Benzyl alcohol	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
Bis(2-chloroethyl)ether	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Bis(2-chloroethoxy)methane	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Bis(2-chloroisopropyl)ether	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Bis(2-ethylhexyl)phthalate	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
4-Bromophenyl phenyl ether	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Butyl benzyl phthalate	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Carbazole	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
4-Chloroaniline	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
4-Chloro-3-methylphenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2-Chloronaphthalene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2-Chlorophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
4-Chlorophenyl phenyl ether	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Chrysene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Dibenz(a,h)anthracene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL



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A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.

Project **Dunn Field Def. Depot**
Description

Site **Memphis, TN**

Fitchburg, MA 01480

Project No. **7010**

Lab Order Number **08-263-0247**

Report of Analysis

Lab ID **0809308-001B**

Received **09/19/08**

Field ID **POTW**

Matrix **Aqueous**

Sample Number **81783**

Sampled **09/19/08 14:50**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 21866 Date/Time Prepped 09/22/08 10:45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Dibenzofuran	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
1,2-Dichlorobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
1,3-Dichlorobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
1,4-Dichlorobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Di-n-butyl phthalate	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
3,3'-Dichlorobenzidine	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
2,4-Dichlorophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2,6-Dichlorophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Diethyl phthalate	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
3,3'-Dimethylbenzidine	< 10.0 MM	µg/L	10.0	1	09/24/08 6:20	AA	35969
2,4-Dimethylphenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Dimethyl phthalate	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
2,4-Dinitrophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2,4-Dinitrotoluene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2,6-Dinitrotoluene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Di-n-octyl phthalate	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Fluoranthene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Fluorene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Hexachlorobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Hexachlorobutadiene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Hexachlorocyclopentadiene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Hexachloroethane	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Indeno(1,2,3-cd)pyrene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Isophorone	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2-Methylnaphthalene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
2-Methylphenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
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	E	Value exceeds method calibration range	II	Prepped / Analyzed out of holding time
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL



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Lab Order Number 08-263-0247

Lab ID 0809308-001B

Field ID POTW

Sample Number 81783

Project **Dunn Field Def. Depot**
Description

Project No. 7010

Site **Memphis, TN**

Report of Analysis

Received 09/19/08

Matrix **Aqueous**

Sampled 09/19/08 14:50

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 21866

Date/Time Prepped 09/22/08 10 45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
3&4-Methylphenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Naphthalene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
2-Nitroaniline	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
3-Nitroaniline	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
4-Nitroaniline	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Nitrobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2-Nitrophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
4-Nitrophenol	< 20.0	µg/L	20.0	1	09/24/08 6:20	AA	35969
N-Nitroso-di-n-butylamine	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
N-Nitrosodiethylamine	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
N-Nitrosodimethylamine	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
N-Nitrosodiphenylamine	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
N-Nitrosodi-n-propylamine	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Pentachlorophenol	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
Phenanthrene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Phenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Pyrene	< 2.00	µg/L	2.00	1	09/24/08 6:20	AA	35969
Pyridine	< 10.0	µg/L	10.0	1	09/24/08 6:20	AA	35969
1,2,4,5-Tetrachlorobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2,3,4,6-Tetrachlorophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
1,2,4-Trichlorobenzene	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2,4,5-Trichlorophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
2,4,6-Trichlorophenol	< 5.00	µg/L	5.00	1	09/24/08 6:20	AA	35969
Surrogate: Nitrobenzene-d5	54 %	Limits: 29-110	1	09/24/08 6:20	AA	35969	
Surrogate: 2-Fluorobiphenyl	51 %	Limits: 38-107	1	09/24/08 6:20	AA	35969	
Surrogate: 4-Terphenyl-d14	60 %	Limits: 33-122	1	09/24/08 6:20	AA	35969	
Surrogate: Phenol-d6	22 %	Limits: 10-115	1	09/24/08 6:20	AA	35969	

Qualifiers/Definitions	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
B	Analyte detected in the associated Method Blank	DF Dilution Factor
E	Value exceeds method calibration range	H Prepped / Analyzed out of holding time
J	Estimated Value Analyte below reported detection limit	M Minimum value
MDL	Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
MRL	Method Reporting Limit	N Refer to attached Non-Compliance Report
Q	RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL

15A0001
1000470

ENVIRONMENTAL TESTING & CONSULTING, INC.

www.etc-memphis.com

2700 Whiston Road

Memphis, Tennessee 38132

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

TerraTherm, Inc.

10 Stevens Rd.

Fitchburg, MA 01480

Lab Order Number 08-263-0247

Lab ID 0809308-001B

Field ID POTW

Sample Number 81783

Project Description
Dunn Field Def. Depot

Site Memphis, TN

Project No. 7010

Report of Analysis

Received 09/19/08

Matrix Aqueous

Sampled 09/19/08 14:50

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 21866

Date/Time Prepped 09/22/08 10:45

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Surrogate: 2,4,6-Tribromophenol	59 %	Limits: 40-125	1	09/24/08 6:20	AA	35969	
Surrogate: 2-Fluorophenol	27 %	Limits: 20-110	1	09/24/08 6:20	AA	35969	

**Qualifiers/
Definitions**

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns

- * I Recoveries affected by interferences or high background
- DF Dilution Factor
- H Prepped / Analyzed out of holding time.
- M Minimum value
- MQL Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

09/24/08 3896 TERRATHERM_AL

0710001 1000471



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213 2400

Fax (901) 213-2440

"A Laboratory Management Partner"

Cooler Receipt Form

Customer Number: 03896

Customer Name: TerraTherm, Inc.

Report Number: 08-263-0247

08-263-0247

Shipping Method

☐ FedEx ☐ UPS ☐ US Postal ☐ Client ☒ LMP ☐ Courier ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Rebekah Ross

Date & Time: 09-19-2008 15:30



ENVIRONMENTAL TESTING & CONSULTING, INC.
2790 Whittier Rd. Memphis, TN 38133 (901) 213-2400 Fax (901) 213-2440

Chain of Custody

Analysis Requester
(Note special detection limits / n)

Phone Number
1-978-343-0300, ext. 25

PO Number

FID Number

Project Number

Matrix
1) Wastewater 4) Sludge

2) Aqueous 5) Oil/Solvent

3) Soil/Sediment 6) Other

Account Number
3896

State Project Loc.
TN

Type of Event (baseline Sampling Events Only)
☒ Single ☐ Daily ☐ Weekly ☐ Monthly

☐ Quarterly ☐ Semi-Annual ☐ Annually ☐ Bi-Monthly

RUSH ☒
(Surcharges may apply)

Ice ☐

Project Manager/Contact
Ken Parker

E-Mail Address
kparker@terratherm.com

Company Name
TerraTherm

Project/Site
Dunn Field-Mphs Def Depot

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

of Containers

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Carbon Vessels

C-Vessel Discharge

Sample Date & Time
9/19/08 1450

Depth

Sample ID/Number

POTW

Method of Shipment

Blank/Cooler Temp

Remarks

3 WD TAT. Field contact: Pete Quintin @ 1-978-877-0099.

Received By (sign)

Received By Lab (print/sign)

Date

Time

Date

Time

Date

Time

Date

Time

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Which Regulations Apply?

☐ NPDES

☒ Wastewater

☐ RCRA

☐ UST

Other ☐

☐ Risk Based Limits

☐ TRRP 13

☐ LA RECAP

☐ USACE

08-263-0247

02896

Sep 19 2008

4:08PM

TerraTherm, Inc.

Dunn Field

0809308

08-263-0247

02896

Sep 19 2008

4:08PM

TerraTherm, Inc.

Dunn Field

0809308

08-263-0247

02896

Sep 19 2008



January 16, 2009

Mr. Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Thermal SVE Wastewater – Effluent Analysis
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc. (e²M), on behalf of the Defense Logistics Agency, hereby submits analytical results, collected on 26 November 2008, of the treated condensate generated from the thermal soil vapor extraction (TSVE) system on Dunn Field at Defense Depot Memphis, Tennessee (DDMT). Approval to discharge condensate from the TSVE system was granted by the City of Memphis on 7 September 2007; the condensate is treated with liquid-phase granular activated carbon (GAC) prior to discharge and samples are collected quarterly. The treated condensate is pumped to a 500-gallon storage tank and then, as the tank approaches capacity, is pumped into a single conveyance line for discharge. The storage tank also receives non-contact cooling water through blow-down water from a cooling tower utilized by the TSVE system. The cooling water is obtained from a City of Memphis water supply connection on Dunn Avenue. The water is discharged via a single conveyance line to the City of Memphis sewer system through the existing discharge line utilized for the interim remedial action (IRA) groundwater recovery system at Dunn Field.

On 26 November 2008, a grab sample of the TSVE system discharge was collected at the discharge location. The sample was submitted to Environmental Testing & Consulting, Inc., in Memphis, Tennessee for analysis. The sample was analyzed for metals, volatile and semi-volatile organic compounds, and pH in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the applicable pages from laboratory report are attached. All volatile organic compounds (except acetone), semi-volatile volatile organic compounds (except phenol), metals, and pH are within discharge limits. Acetone exceeded the monthly average maximum and phenol exceeded the one-day maximum.

Thermal SVE operations were discontinued on 4 December. However, residual heat from TSVE operations has resulted in increased condensate from the Fluvial SVE (FSVE) system. The liquid-phase GAC will continue to be used to treat condensate and volumes reported monthly in the Dunn Field Operation Reports. The GAC was replaced on December 13, 2008. Laboratory samples will be collected quarterly and reported to the City of Memphis.

engineering-environmental Management, Inc.

11171 Sun Center Drive, Suite 210, Rancho Cordova, CA 95670 • (916) 852-7792 • Fax (916) 852-7836



Mr. Akil AL-Chokhachi
January 16, 2009
Page 2 of 2

If you need additional information, please contact the undersigned at (916) 852-7792 or steven.herrera@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

A handwritten signature in black ink, appearing to read "Steven Herrera", with a long horizontal flourish extending to the right.

Steven Herrera, P.E.
IRA Task Manager

c: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Thomas Holmes, e²M

Summary of Analytical Results
Thermal SVE Discharge
Defense Depot Memphis, Tennessee
FA8903-04D-8722-0019
e²M Project 3202-043

Sample Identification	TSVE System Discharge	City of Memphis Industrial Permit Discharge Limits	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	11/26/2008		
Discharge Flow Rate (gpm)	2.6		
pH ⁽¹⁾	6.26	5.5 to 10.0	5.5 to 10.0
TAL Metals⁽²⁾	mg/L	mg/L	mg/L
Aluminum	0.436	5000	10000
Antimony	NA	6	12
Arsenic	ND	40	100
Barium	0.176	2000	4000
Cadmium	ND	10	20
Calcium	NA	40000	80000
Chromium	0.012	200	400
Copper	1.04	600	1200
Iron	8.79	15000	30000
Lead	0.027	150	300
Magnesium	NA	20000	40000
Manganese	NA	50	100
Mercury	0.0021	1	2
Nickel	0.264	100	300
Potassium	NA	2000	4000
Selenium	ND	50	100
Sodium	NA	40000	80000
Thallium	NA	2	4
Zinc	1.12	300	1000
TCL Volatile Organic Compounds⁽³⁾	ug/L	ug/L	ug/L
1,1,2,2-Tetrachloroethane	24.6	500	1000
1,1,1-Trichloroethane	ND	10	20
1,1,2-Trichloroethane	ND	50	100
1,1-Dichloroethane	ND	10	20
1,1-Dichloroethene	ND	50	100
2-Butanone (MEK)	328	NS	NS
Acetone	3410	2000	4000
Carbon tetrachloride	ND	20	40
Chloroform	64.9	100	200
Chloromethane	ND	10	20
cis-1,2-Dichloroethene	80	80	100
Methylene chloride	ND	10	20
Tetrachloroethene	ND	60	120
Toluene	ND	20	40
trans-1,2-Dichloroethene	ND	50	100
Trichloroethene	128	400	800
TCL Semi-volatile Organic Compounds⁽⁴⁾	ug/L	ug/L	ug/L
3,4-Methylphenol	5.12	NS	NS
Bis (2-ethylhexyl) Phthalate	ND	35	70
Di-n-butyl Phthalate	ND	30	60
Fluoranthene	ND	10	20
Naphthalene	ND	10	20
Phenanthrene	ND	10	20
Phenol	22.4	10	20
Pyrene	ND	10	20
Pyridine	220	NS	NS

Notes:

(1) pH analyses performed by EPA Method 150.1 pH for the TSVE system is measured in the field

(2) Target Analyte List (TAL) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A)

(3) TCL Volatile Organic analyses performed by EPA Method 8260B

(4) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

mg/L = milligrams per liter

ug/L = micrograms per liter

NA = not analyzed

ND = not detected

NS = no standard

TSVE = Thermal Soil Vapor Extraction

Bold number indicates that value exceeds permit maximum

10000476



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

"A Laboratory Management Partner"

12/10/2008

TerraTherm, Inc.
Mr. Ken Parker
10 Stevens Rd.
Fitchburg, MA, 01450

Ref: Analytical Testing
Report Number: 08-331-0234
Project Description: Dunn Field-Memphis Defense Depot

Dear Mr. Ken Parker:

Environmental Testing and Consulting, Inc. received 3 sample(s) on 11/26/2008 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and /or 40 CFR part 136.

The EPA requires that water samples analyzed for pH, dissolved oxygen and total residual chlorine be analyzed in the field. Analyses and results reported which do not indicate "Field" for these parameters were analyzed outside the holding time as specified in Table II of 40 CFR Part 136.3.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA and NELAP.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Nathan Pera
Project Manager

Alabama #40750
Arkansas #88-0650
Illinois #200015
Kentucky #90047
Kentucky UST #41

Louisiana #04015
Mississippi
Oklahoma #9311
Tennessee #02027
Virginia #00106

Florida #E87943
Pennsylvania #68-3195
USDA #S-46279
EPA #TN00012
NELAP #100456

California #05240CA
Texas #T104704180-05-TX



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ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis Tennessee 38133

(901) 213-2400

Fax (901) 213-2440

A Laboratory Management Partner

03896

TerraTherm, Inc. 30000

Mr. Ken Parker

10 Stevens Rd.

Fitchburg, MA 01450

Project ID :

Description : Dunn Field-Memphis Defense Depot

Report Date : 12/10/2008

Report Number : 08-331-0234

REPORT OF ANALYSIS

Received : 11/26/2008

Lab No : 88918

Matrix: Aqueous

Sample ID : POTW

Sampled: 11/26/2008 11:35

Test	Results	Units	MQL	Date / Time Analyzed	By	Analytical Method
pH	6.26	S.U.		11/26/08 11:35	FLD	FIELD
Total Aluminum	0.436	mg/L	0.1	12/03/08 05:43	JTR	EPA-200.7
Total Arsenic	<0.01	mg/L	0.01	12/03/08 05:43	JTR	EPA-200.7
Total Barium	0.176	mg/L	0.01	12/03/08 05:43	JTR	EPA-200.7
Total Cadmium	<0.002	mg/L	0.002	12/03/08 05:43	JTR	EPA-200.7
Total Chromium	0.012	mg/L	0.005	12/03/08 05:43	JTR	EPA-200.7
Total Copper	1.04	mg/L	0.005	12/03/08 05:43	JTR	EPA-200.7
Total Iron	8.79	mg/L	0.1	12/03/08 05:43	JTR	EPA-200.7
Total Lead	0.027	mg/L	0.006	12/03/08 05:43	JTR	EPA-200.7
Total Mercury	0.0021	mg/L	0.0002	12/02/08 10:12	TJ	EPA-245.1
Total Nickel	0.264	mg/L	0.005	12/03/08 05:43	JTR	EPA-200.7
Total Selenium	<0.01	mg/L	0.01	12/03/08 05:43	JTR	EPA-200.7
Total Silver	<0.005	mg/L	0.005	12/03/08 05:43	JTR	EPA-200.7
Total Zinc	1.12	mg/L	0.01	12/03/08 05:43	JTR	EPA-200.7

Qualifiers/ Definitions

MQL

Method Quantitation Limit

10000478



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-7400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.
Fitchburg, MA 01480

Project **Dunn Field-Memphis**
Description **Defense Depot**

Site **Dunn Ave. Memphis,**
TN

Lab Order Number **08-331-0234**
Lab ID **0811370-003A**
Field ID **POTW**
Sample Number **88918**

Report of Analysis
Received **11/26/08**
Matrix **Aqueous**
Sampled **11/26/08 11:35**

Analytical Method 8260B

Prep Method	5030B	Prep Batch(s)	22826	Date/Time Prepped					12/08/08 11:08
Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch		
Acetone	3,410	µg/L	1,000	50	12/08/08 16:06	VS	37057		
Acetonitrile	< 500	µg/L	500	10	12/04/08 14:39	VS	36995		
Acrolein	< 200	µg/L	200	10	12/04/08 14:39	VS	36995		
Acrylonitrile	< 200	µg/L	200	10	12/04/08 14:39	VS	36995		
Benzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Bromobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Bromochloromethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Bromodichloromethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Bromoform	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Bromomethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
n-Butylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
sec-Butylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
tert-Butylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
2-Butanone (MEK)	328	µg/L	200	10	12/04/08 14:39	VS	36995		
Carbon disulfide	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Carbon tetrachloride	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Chlorobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Chlorodibromomethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Chloroethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
2-Chloroethyl vinyl ether	< 50.0 M	µg/L	50.0	10	12/04/08 14:39	VS	36995		
Chloroform	64.9	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Chloromethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
2-Chlorotoluene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
4-Chlorotoluene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
1,2-Dibromo-3-chloropropane	< 50.0	µg/L	50.0	10	12/04/08 14:39	VS	36995		
1,2-Dibromoethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		
Dibromomethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995		

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

12/10/08 3896 TERRATHERM_AL

08110000379
1000479

ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 1901) 213-2400 Fax 1901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.

10 Stevens Rd.
Fitchburg, MA 01480

Project **Dunn Field-Memphis**
Description **Defense Depot**

Site **Dunn Ave. Memphis,**
TN

Lab Order Number **08-331-0234**Lab ID **0811370-003A**Field ID **POTW**Sample Number **88918**

Report of Analysis

Received **11/26/08**Matrix **Aqueous**Sampled **11/26/08 11:35**Analytical Method **8260B**Prep Method **5030B** Prep Batch(s) **22826** Date/Time Prepped **12/08/08 11:08**

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
1,2-Dichlorobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,3-Dichlorobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,4-Dichlorobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Dichlorodifluoromethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1-Dichloroethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,2-Dichloroethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1-Dichloroethene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
cis-1,2-Dichloroethene	80.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
trans-1,2-Dichloroethene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,2-Dichloropropane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,3-Dichloropropane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
2,2-Dichloropropane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1-Dichloropropene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
cis-1,3-Dichloropropene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
trans-1,3-Dichloropropene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Ethyl acetate	< 100	µg/L	100	10	12/04/08 14:39	VS	36995
Ethylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Hexachlorobutadiene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
2-Hexanone	< 50.0	µg/L	50.0	10	12/04/08 14:39	VS	36995
Iodomethane	< 50.0	µg/L	50.0	10	12/04/08 14:39	VS	36995
Isopropylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
4-Isopropyltoluene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Methylene chloride	< 100	µg/L	100	10	12/04/08 14:39	VS	36995
4-Methyl-2-pentanone	< 50.0	µg/L	50.0	10	12/04/08 14:39	VS	36995
Methyl tert-butyl ether	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Naphthalene	< 50.0	µg/L	50.0	10	12/04/08 14:39	VS	36995
n-Propylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995

Qualifiers/
Definitions

* Surrogate Recovery outside accepted limits

B Analyte detected in the associated Method Blank

E Value exceeds method calibration range

J Estimated Value Analyte below reported detection limit

MDL Method Detection Limit (unadjusted)

MRL Method Reporting Limit

Q RPD >40% between primary and confirmation columns

* I Recoveries affected by interferences or high background

DF Dilution Factor

H Prepped / Analyzed out of holding time

M Minimum value

MQL Method Quantitation Limit (adjusted)

N Refer to attached Non-Compliance Report

SQL Sample Quantitation Limit (adjusted MDL)

12/10/08 3896 TERRATHERM.AL

1000480



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
 "A Laboratory Management Partner"

TerraTherm, Inc.
 10 Stevens Rd.
 Fitchburg, MA 01480

Project Dunn Field-Memphis
Description Defense Depot

Site Dunn Ave. Memphis,
 TN

Lab Order Number 08-331-0234
Lab ID 0811370-003A
Field ID POTW
Sample Number 88918

Report of Analysis
Received 11/26/08
Matrix Aqueous
Sampled 11/26/08 11:35

Analytical Method 8260B

Prep Method 5030B **Prep Batch(s)** 22826 **Date/Time Prepped** 12/08/08 11.08

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Styrene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1,1,2-Tetrachloroethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1,2,2-Tetrachloroethane	24.6	µg/L	10.0	10	12/04/08 14:39	VS	36995
Tetrachloroethene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Toluene	< 50.0	µg/L	50.0	10	12/04/08 14:39	VS	36995
1,2,3-Trichlorobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,2,4-Trichlorobenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1,1-Trichloroethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,1,2-Trichloroethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Trichloroethene	128	µg/L	10.0	10	12/04/08 14:39	VS	36995
Trichlorofluoromethane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,2,3-Trichloropropane	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,2,4-Trimethylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
1,3,5-Trimethylbenzene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Vinyl acetate	< 100	µg/L	100	10	12/04/08 14:39	VS	36995
Vinyl chloride	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
m,p-Xylene	< 20.0	µg/L	20.0	10	12/04/08 14:39	VS	36995
o-Xylene	< 10.0	µg/L	10.0	10	12/04/08 14:39	VS	36995
Surrogate: Dibromofluoromethane	109 %	Limits: 75-125	10	12/04/08 14:39	VS	36995	
Surrogate: Toluene-d8	101 %	Limits: 85-120	10	12/04/08 14:39	VS	36995	
Surrogate: 4-Bromofluorobenzene	99 %	Limits: 85-118	10	12/04/08 14:39	VS	36995	
Surrogate: 1,2-Dichloroethane-d4	118 %	Limits: 72-132	10	12/04/08 14:39	VS	36995	
Surrogate: Dibromofluoromethane	110 %	Limits: 75-125	50	12/08/08 16:06	VS	37057	
Surrogate: Toluene-d8	99 %	Limits: 85-120	50	12/08/08 16:06	VS	37057	
Surrogate: 4-Bromofluorobenzene	100 %	Limits: 85-118	50	12/08/08 16:06	VS	37057	
Surrogate: 1,2-Dichloroethane-d4	119 %	Limits: 72-132	50	12/08/08 16:06	VS	37057	

Qualifiers/Definitions		
*	Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
B	Analyte detected in the associated Method Blank	DF Dilution Factor
E	Value exceeds method calibration range	H Prepped / Analyzed out of holding time
J	Estimated Value Analyte below reported detection limit	M Minimum value
MDL	Method Detection Limit (unadjusted)	MQL Method Quantitation Limit (adjusted)
MRL	Method Reporting Limit	N Refer to attached Non-Compliance Report
Q	RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

12/10/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.
Fitchburg, MA 01480

Project **Dunn Field-Memphis**
Description **Defense Depot**

Site **Dunn Ave. Memphis, TN**

Lab Order Number **08-331-0234**
Lab ID **0811370-003B**
Field ID **POTW**
Sample Number **88918**

Report of Analysis
Received **11/26/08**
Matrix **Aqueous**
Sampled **11/26/08 11:35**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 22687 Date/Time Prepped 11/26/08 10:35

Compound	Result	Units	ML	DF	Date/Time Analyzed	By	Analytical Batch
Acenaphthene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Acenaphthylene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Acetophenone	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Aniline	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Anthracene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Benzidine	< 20.0 M	µg/L	20.0	1	12/09/08 12:39	AA	37010
Benzo(a)anthracene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Benzo(b)fluoranthene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Benzo(k)fluoranthene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Benzo(g,h,i)perylene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Benzo(a)pyrene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Benzoic acid	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
Benzyl alcohol	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
Bis(2-chloroethyl)ether	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Bis(2-chloroethoxy)methane	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Bis(2-chloroisopropyl)ether	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Bis(2-ethylhexyl)phthalate	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
4-Bromophenyl phenyl ether	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Butyl benzyl phthalate	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Carbazole	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
4-Chloroaniline	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
4-Chloro-3-methylphenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2-Chloronaphthalene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2-Chlorophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
4-Chlorophenyl phenyl ether	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Chrysene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Dibenz(a,h)anthracene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010

Qualifiers/
Definitions

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns

- * I Recoveries affected by interferences or high background
- DF Dilution Factor
- H Prepped / Analyzed out of holding time
- M Minimum value
- ML Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

12/10/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whelan Road

Memphis, Tennessee 38133

(901) 213-2400

Fax (901) 213-2442

A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.
Fitchburg, MA 01480

Project **Dunn Field-Memphis**
Description **Defense Depot**

Site **Dunn Ave. Memphis,**
TN

Lab Order Number **08-331-0234**
Lab ID **0811370-003B**
Field ID **POTW**
Sample Number **88918**

Report of Analysis

Received **11/26/08**
Matrix **Aqueous**
Sampled **11/26/08 11:35**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 22687 Date/Time Prepped 11/26/08 10:35

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
Dibenzofuran	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
1,2-Dichlorobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
1,3-Dichlorobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
1,4-Dichlorobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Di-n-butyl phthalate	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
3,3'-Dichlorobenzidine	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
2,4-Dichlorophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2,6-Dichlorophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Diethyl phthalate	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
3,3'-Dimethylbenzidine	< 10.0 M	µg/L	10.0	1	12/09/08 12:39	AA	37010
2,4-Dimethylphenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Dimethyl phthalate	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
2,4-Dinitrophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2,4-Dinitrotoluene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2,6-Dinitrotoluene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Di-n-octyl phthalate	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Fluoranthene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Fluorene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Hexachlorobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Hexachlorobutadiene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Hexachlorocyclopentadiene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Hexachloroethane	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Indeno(1,2,3-cd)pyrene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Isophorone	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2-Methylnaphthalene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
2-Methylphenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010

Qualifiers/	*	Surrogate Recovery outside accepted limits	* I	Recoveries affected by interferences or high background
Definitions	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	E	Value exceeds method calibration range	H	Prepped / Analyzed out of holding time
	J	Estimated Value Analyte below reported detection limit	M	Minimum value
	MDL	Method Detection Limit (unadjusted)	MQL	Method Quantitation Limit (adjusted)
	MRL	Method Reporting Limit	N	Refer to attached Non-Compliance Report
	Q	RPD >40% between primary and confirmation columns	SQL	Sample Quantitation Limit (adjusted MDL)

12/10/08 . 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax: (901) 213-2440
A Laboratory Management Partner

TerraTherm, Inc.
10 Stevens Rd.
Fitchburg, MA 01480

Project **Dunn Field-Memphis**
Description **Defense Depot**

Site **Dunn Ave. Memphis,**
TN

Lab Order Number **08-331-0234**
Lab ID **0811370-003B**
Field ID **POTW**
Sample Number **88918**

Report of Analysis
Received **11/26/08**
Matrix **Aqueous**
Sampled **11/26/08 11:35**

Analytical Method 8270C

Prep Method 3510C Prep Batch(s) 22687 Date/Time Prepped 11/26/08 10:35

Compound	Result	Units	MQL	DF	Date/Time Analyzed	By	Analytical Batch
3&4-Methylphenol	5.12	µg/L	5.00	1	12/09/08 12:39	AA	37010
Naphthalene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
2-Nitroaniline	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
3-Nitroaniline	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
4-Nitroaniline	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Nitrobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2-Nitrophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
4-Nitrophenol	< 20.0	µg/L	20.0	1	12/09/08 12:39	AA	37010
N-Nitroso-di-n-butylamine	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
N-Nitrosodiethylamine	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
N-Nitrosodimethylamine	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
N-Nitrosodiphenylamine	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
N-Nitrosodi-n-propylamine	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Pentachlorophenol	< 10.0	µg/L	10.0	1	12/09/08 12:39	AA	37010
Phenanthrene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Phenol	22.4	µg/L	5.00	1	12/09/08 12:39	AA	37010
Pyrene	< 2.00	µg/L	2.00	1	12/09/08 12:39	AA	37010
Pyridine	220	µg/L	100	10	12/09/08 15:29	AA	37010
1,2,4,5-Tetrachlorobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2,3,4,6-Tetrachlorophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
1,2,4-Trichlorobenzene	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2,4,5-Trichlorophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
2,4,6-Trichlorophenol	< 5.00	µg/L	5.00	1	12/09/08 12:39	AA	37010
Surrogate: Nitrobenzene-d5	64 %	Limits: 29-110	1	12/09/08 12:39	AA	37010	
Surrogate: 2-Fluorobiphenyl	57 %	Limits: 38-107	1	12/09/08 12:39	AA	37010	
Surrogate: 4-Terphenyl-d14	67 %	Limits: 33-122	1	12/09/08 12:39	AA	37010	
Surrogate: Phenol-d6	27 %	Limits: 10-115	1	12/09/08 12:39	AA	37010	

Qualifiers/	* Surrogate Recovery outside accepted limits	* I Recoveries affected by interferences or high background
Definitions	B Analyte detected in the associated Method Blank	DF Dilution Factor
	E Value exceeds method calibration range	H Prepped / Analyzed out of holding time.
	J Estimated Value Analyte below reported detection limit	M Minimum value
	MDL Method Detection Limit (unadjusted)	ML Method Quantitation Limit (adjusted)
	MRL Method Reporting Limit	N Refer to attached Non-Compliance Report
	Q RPD >40% between primary and confirmation columns	SQL Sample Quantitation Limit (adjusted MDL)

12/10/08 3896 TERRATHERM_AL

881000484



ENVIRONMENTAL TESTING & CONSULTING, INC.

2750 Whitten Road

Memphis, Tennessee 38123

(901) 213-2460

Fax (901) 213-2442

"A Laboratory Management Partner"

TerraTherm, Inc.
10 Stevens Rd.
Fitchburg, MA 01480

Project **Dunn Field-Memphis**
Description **Defense Depot**

Site **Dunn Ave. Memphis, TN**

Lab Order Number **08-331-0234**Lab ID **0811370-003B**Field ID **POTW**Sample Number **88918**

Report of Analysis

Received **11/26/08**Matrix **Aqueous**Sampled **11/26/08 11:35**

Analytical Method 8270C

Prep Method 3510C

Prep Batch(s) 22687

Date/Time Prepped 11/26/08 10:35

Compound	Result	Units	MLQ	DF	Date/Time Analyzed	By	Analytical Batch
Surrogate: 2,4,6-Tribromophenol	62 %	Limits: 40-125	1	12/09/08 12:39	AA	37010	
Surrogate: 2-Fluorophenol	40 %	Limits: 20-110	1	12/09/08 12:39	AA	37010	

Qualifiers/ Definitions

- * Surrogate Recovery outside accepted limits
- B Analyte detected in the associated Method Blank
- E Value exceeds method calibration range
- J Estimated Value Analyte below reported detection limit
- MDL Method Detection Limit (unadjusted)
- MRL Method Reporting Limit
- Q RPD >40% between primary and confirmation columns

- * I Recoveries affected by interferences or high background
- DF Dilution Factor
- H Prepped / Analyzed out of holding time
- M Minimum value
- MLQ Method Quantitation Limit (adjusted)
- N Refer to attached Non-Compliance Report
- SQL Sample Quantitation Limit (adjusted MDL)

12/10/08 3896 TERRATHERM_AL



ENVIRONMENTAL TESTING & CONSULTING, INC.

2790 Whitten Road

Memphis, Tennessee 38133

(901) 213 2400

Fax (901) 213-2440

"A Laboratory Management Partner"

Cooler Receipt Form

Customer Number: 03896

Customer Name: TerraTherm, Inc.

08-331-0234

Report Number: 08-331-0234

Shipping Method

☐ FedEx ☐ UPS ☐ US Postal ☐ Client ☒ LMP ☐ Courier ☐ Other:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated tests?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials free of headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - Preservation acceptable upon receipt?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Samples screened for radioactivity (COE only)?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Rebekah RossDate & Time: 11-26-2008 12:30

7-0000



DR. WILLIE W. HERENTON - Mayor
KEITH L. McGEE - Chief Administrative Officer
DIVISION OF PUBLIC WORKS
JERRY R. COLLINS JR. - Director
Maynard C. Stiles Wastewater Treatment Plant

Thursday, May 24, 2007

Mr. Thomas Holmes
Project Manager
Engineering Environmental Management
P.O. Box 191253
Atlanta, Georgia 31119-1253

RE: Request for disposal of groundwater
Industrial Wastewater Discharge Agreement Permit # S-NN3-097
DES-DDC-EE (Memphis) @ 2163 Airways Blvd., Memphis, Tennessee

Dear Mr. Holmes:

We have received and approve your request to discharge of 21,000 gallons of groundwater from monitoring wells into the sanitary sewer system at the above referenced location. The discharge point is a manhole located at Parkway and Sittler Street on the property of the Defense Depot. The discharge flow rate should not exceed 30 gallon per minute.

This approval is for this batch of treated groundwater only.

If you should have any questions, please feel free to contact me at (901) 576-4337.

Sincerely,

Akil AL-Chokhachi
Environmental Engineer

e2M Memphis Field office
2241 Truitt Street
Memphis, TN 38114



22 May 2007

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Wastewater Discharge Request
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc., on behalf of the Defense Logistics Agency, requests permission to discharge wastewater to the City of Memphis Sewer System. The wastewater was generated at Defense Depot Memphis, Tennessee during recent site restoration activities and consists of recovered groundwater from well installation/abandonment, development and sampling, and wastewater from equipment decontamination.

A grab sample of the wastewater was collected on 08 May 2007 and submitted to Kemron Environmental Services for analysis of metals and volatile and semi-volatile organic compounds in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the complete laboratory report are attached. All constituents were below the concentration limits. However, the pH of the wastewater was 11.7, which exceeds the permit maximum of 10. The elevated pH is due to contact with cement grout during well construction and abandonment. If approved, the wastewater volume of approximately 21,000 gallons will be discharged to the sewer system through the manhole located at the intersection of Memphis Depot Parkway and Sitler Street (map attached).

If you need additional information, please contact the undersigned at 404-237-3982 or tholmes@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Thomas C Holmes

Thomas C. Holmes
Project Manager

cc: Michael A. Dobbs, DES-DDC-EE
Chris Hobbins, AFCEE

Sample Identification	IDW-Water 5/8/07	City of Memphis Industrial Wastewater Allowable Levels	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	5/8/07		
TAL Metals⁽¹⁾	<i>mg/L</i>	<i>mg/L</i>	<i>mg/L</i>
Aluminum (total)	0.0844F	1.000	2.000
Arsenic (total)	0.000553F	0.040	0.100
Barium (total)	0.269	NS	NS
Cadmium (total)	ND	0.010	0.020
Calcium (total)	154	NS	NS
Chromium (total)	0.0656	0.200	0.400
Copper (total)	ND	0.200	0.400
Iron (total)	0.0557	10.000	20.000
Lead (total)	ND	0.150	0.300
Mercury (total)	ND	0.001	0.002
Nickel (total)	ND	0.100	0.300
Potassium (total)	29.1	NS	NS
Selenium (total)	0.0023	NS	NS
Sodium (total)	47.6	NS	NS
Zinc (total)	0.00936F	0.300	1.000
TCL Volatile Organics⁽²⁾	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>
Acetone	56.7	NS	NS
Carbon Tetrachloride	ND	20	40
Chloroform	4.21	100	200
1,1-dichloroethene	ND	50	100
Cis-1,2-dichloroethene	0.686F	80	100
Trans-1,2-dichloroethene	ND	50	100
Methylene Chloride	ND	10	20
MEK (2-Butanone)	3.61F	10	20
1,1,2,2-tetrachloroethane	ND	500	1000
Tetrachloroethene	8.12	60	120
Toluene	1.33	20	40
1,1,1-trichloroethane	ND	10	20
1,1,2-trichloroethane	ND	50	100
Trichloroethene	3.78	400	800
TCL Semi-Volatile Organics⁽³⁾	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>
Bis (2-ethylhexyl) Phthalate	ND	10	20
Di-n-butyl Phthalate	ND	30	60
Naphthalene	ND	10	20
Phenol	ND	10	20

Notes

(1) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A)

(2) TCL Volatile Organic analyses performed by EPA Method 8260B

(3) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

NS = No standard listed in the Industrial Wastewater Discharge Permit

ND = Analyte not detected; Reporting Limit shown

F = Found, the analyte was positively identified with concentration above MDL but below the reporting limit

LABORATORY REPORT

L0705211

05/15/07 15:37

Submitted By

080000

KEMRON Environmental Services

156 Starlite Drive

Marietta, OH 45750

(740) 373-4071

For

Account Name: Engineering-Environmental Management

184 Creekside Park

Suite 100

Spring Branch, TX 78070

Attention: Lance Hines

Account Number: 2886

Work ID: LTM_WELL_INSTALL

Sample Summary

Client ID	Lab ID	Date Collected	Date Received
IDW-WATER-5-8-07	L0705211-01	05/08/2007 12:45	05/09/2007
TB-5-8-07	L0705211-02	05/08/2007 12:45	05/09/2007

1000491

KEMRON ENVIRONMENTAL SERVICES

0040001

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-01
 Client ID: IDW-WATER-5-8-07
 Matrix: Water
 Workgroup Number: WG240130
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3005A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/L

Instrument: PE-ICP
 Prep Date: 05/10/2007 06:00
 Cal Date: 05/11/2007 10:14
 Run Date: 05/11/2007 12:39
 File ID: PE.051107.123910

Analyte	CAS. Number	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	0.0844	F	0.100	0.0500
Silver, Total	7440-22-4		U	0.0100	0.00500
Barium, Total	7440-39-3	0.269		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.0100	0.000500
Calcium, Total	7440-70-2	154		0.200	0.100
Cadmium, Total	7440-43-9		U	0.0100	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Chromium, Total	7440-47-3	0.0656		0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.0557	F	0.100	0.0250
Potassium, Total	7440-09-7	29.1		1.00	0.250
Magnesium, Total	7439-95-4		U	0.500	0.250
Manganese, Total	7439-96-5		U	0.0100	0.00500
Sodium, Total	7440-23-5	47.6		0.500	0.250
Nickel, Total	7440-02-0		U	0.0400	0.00500
Lead, Total	7439-92-1		U	0.00500	0.00250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6	0.00936	F	0.0200	0.00500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L0705211-01
 Client ID: IDW-WATER-5-8-07
 Matrix: Water
 Workgroup Number: WG240312
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS8
 Prep Date: 05/15/2007 14:05
 Cal Date: 05/06/2007 18:59
 Run Date: 05/15/2007 14:05
 File ID: 8M336483

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200

KEMRON ENVIRONMENTAL SERVICES

1000492

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-01
 Client ID: IDW-WATER-5-8-07
 Matrix: Water
 Workgroup Number: WG240312
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS8
 Prep Date: 05/15/2007 14:05
 Cal Date: 05/06/2007 18:59
 Run Date: 05/15/2007 14:05
 File ID: 8M336483

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dichlorobenzene	106-46-7		U	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
Acetone	67-64-1	56.7		10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	3.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3	4.21		0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2	0.686	F	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
MEK (2-Butanone)	78-93-3	3.61	F	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-,p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6	3.78		1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4	8.12		1.00	0.250
Toluene	108-88-3	1.33		1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250

1000493
SER00001

KEMRON ENVIRONMENTAL SERVICES

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-01
Client ID: IDW-WATER-5-8-07
Matrix: Water
Workgroup Number: WG240312
Collect Date: 05/08/2007 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 05/15/2007 14:05
Cal Date: 05/06/2007 18:59
Run Date: 05/15/2007 14:05
File ID: 8M336483

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	96.9	85	115	
1,2-Dichloroethane-d4	93.2	72	119	
Toluene-d8	93.0	81	120	
4-Bromofluorobenzene	85.4	76	119	

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L0705211-01
Client ID: IDW-WATER-5-8-07
Matrix: Water
Workgroup Number: WG240015
Collect Date: 05/08/2007 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: SLP
Dilution: 1
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 05/10/2007 06:50
Cal Date: 05/10/2007 10:19
Run Date: 05/10/2007 12:49
File ID: EL.051007.124946

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	0.000553	F	0.00100	0.000250
Antimony, Total	7440-36-0		U	0.00100	0.000250
Selenium, Total	7782-49-2	0.00230		0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.0000500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L0705211-01
Client ID: IDW-WATER-5-8-07
Matrix: Water
Workgroup Number: WG240068
Collect Date: 05/08/2007 12:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: METHOD
Analytical Method: 7470A
Analyst: MMB
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 05/10/2007 06:50
Cal Date: 05/10/2007 18:47
Run Date: 05/10/2007 19:37
File ID: HY.051007.193711

Analyte	CAS. Number	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100

U Undetected; the analyte was analyzed for, but not detected.

Sample Number: L0705211-01
Client ID: IDW-WATER-5-8-07
Matrix: Water
Workgroup Number: WG239930
Collect Date: 05/08/2007 12:45

PrePrep Method: NONE
Prep Method: 9040C
Analytical Method: 9040C
Analyst: TMM
Dilution: 1
Units: UNITS

Instrument: ORION-710A
Prep Date: 05/05/2007 14:45
Cal Date: 05/05/2007 14:45
Run Date: 05/05/2007 14:45
File ID: OR07051011313501

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH	10-29-7	11.7			

KEMRON ENVIRONMENTAL SERVICES

1000494

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-01
 Client ID: IDW-WATER-5-8-07
 Matrix: Water
 Workgroup Number: WG240261
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: ASP
 Dilution: 1
 Units: ug/L

Instrument: HPMS5
 Prep Date: 05/07/2007 13:00
 Cal Date: 05/07/2007 18:51
 Run Date: 05/11/2007 21:45
 File ID: 5M46264

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,4-Trichlorobenzene	120-82-1		U	10.4	2.60
1,2-Dichlorobenzene	95-50-1		U	10.4	2.60
1,3-Dichlorobenzene	541-73-1		U	10.4	2.60
1,4-Dichlorobenzene	106-46-7		U	10.4	2.60
2,4-Dinitrotoluene	121-14-2		U	10.4	2.60
2,6-Dinitrotoluene	606-20-2		U	10.4	2.60
2-Chloronaphthalene	91-58-7		U	10.4	2.60
2-Methylnaphthalene	91-57-6		U	10.4	2.60
2-Nitroaniline	88-74-4		U	52.1	13.0
3-Nitroaniline	99-09-2		U	52.1	13.0
3,3'-Dichlorobenzidine	91-94-1		U	20.8	2.60
4-Bromophenyl-phenylether	101-55-3		U	10.4	2.60
4-Chloroaniline	106-47-8		U	20.8	5.21
4-Chlorophenyl-phenyl ether	7005-72-3		U	10.4	2.60
4-Nitroaniline	100-01-6		U	52.1	13.0
Acenaphthylene	208-96-8		U	10.4	2.60
Acenaphthene	83-32-9		U	10.4	2.60
Anthracene	120-12-7		U	10.4	2.60
Benzo(a)anthracene	56-55-3		U	10.4	2.60
Benzo(a)pyrene	50-32-8		U	10.4	2.60
Benzo(k)fluoranthene	207-08-9		U	10.4	2.60
Benzo(b)fluoranthene	205-99-2		U	10.4	2.60
Benzo(g,h,i)Perylene	191-24-2		U	10.4	2.60
Benzyl alcohol	100-51-6		U	20.8	2.60
Bis(2-Chloroethoxy)Methane	111-91-1		U	10.4	2.60
Bis(2-Chloroethyl)ether	111-44-4		U	10.4	2.60
bis(2-Chloroisopropyl)ether	39638-32-9		U	10.4	2.60
bis(2-Ethylhexyl)phthalate	117-81-7		U	10.4	2.60
Butylbenzylphthalate	85-68-7		U	10.4	2.60
Chrysene	218-01-9		U	10.4	2.60
Di-N-Butylphthalate	84-74-2		U	10.4	2.60
Di-n-octylphthalate	117-84-0		U	10.4	2.60
Dibenzo(a,h)Anthracene	53-70-3		U	10.4	2.60
Dibenzofuran	132-64-9		U	10.4	2.60
Diethylphthalate	84-66-2		U	10.4	2.60
Dimethylphthalate	131-11-3		U	10.4	2.60
Fluoranthene	206-44-0		U	10.4	2.60
Fluorene	86-73-7		U	10.4	2.60
Hexachlorobenzene	118-74-1		U	10.4	2.60
Hexachlorobutadiene	87-68-3		U	10.4	2.60
Hexachloroethane	67-72-1		U	10.4	2.60
Indeno(1,2,3-cd)pyrene	193-39-5		U	10.4	2.60
Isophorone	78-59-1		U	10.4	2.60
N-Nitrosodiphenylamine	86-30-6		U	10.4	2.60
N-Nitroso-di-n-propylamine	621-64-7		U	10.4	2.60
Naphthalene	91-20-3		U	10.4	2.60
Nitrobenzene	98-95-3		U	10.4	2.60
Phenanthrene	85-01-8		U	10.4	2.60

1000495

KEMRON ENVIRONMENTAL SERVICES

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-01
 Client ID: IDW-WATER-5-8-07
 Matrix: Water
 Workgroup Number: WG240261
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: ASP
 Dilution: 1
 Units: ug/L

Instrument: HPMS5
 Prep Date: 05/07/2007 13:00
 Cal Date: 05/07/2007 18:51
 Run Date: 05/11/2007 21:45
 File ID: 5M46264

Analyte	CAS. Number	Result	Qual	RL	MDL
Pyrene	129-00-0		U	10.4	2.60
2,4,5-Trichlorophenol	95-95-4		UJ	52.1	2.60
2,4,6-Trichlorophenol	88-06-2		UJ	10.4	2.60
2,4-Dichlorophenol	120-83-2		UJ	10.4	2.60
2,4-Dimethylphenol	105-67-9		UJ	10.4	2.60
2,4-Dinitrophenol	51-28-5		UJ	52.1	13.0
2-Chlorophenol	95-57-8		UJ	10.4	2.60
2-Methylphenol	95-48-7		UJ	10.4	2.60
2-Nitrophenol	88-75-5		UJ	10.4	2.60
4,6-Dinitro-2-methylphenol	534-52-1		UJ	52.1	13.0
4-Chloro-3-methylphenol	59-50-7		UJ	20.8	2.60
3-,4-Methylphenol	106-44-5		UJ	52.1	2.60
4-Nitrophenol	100-02-7		UJ	52.1	13.0
Benzoic acid	65-85-0		Q	104	13.0
Pentachlorophenol	87-86-5		UJ	52.1	13.0
Phenol	108-95-2		UJ	10.4	2.60
Surrogate	% Recovery	Lower	Upper	Qual	
2-Fluorophenol	12.1	20	120	*	
Phenol-d5	14.1	20	120	*	
Nitrobenzene-d5	62.3	41	120		
2-Fluorobiphenyl	59.4	48	120		
2,4,6-Tribromophenol	31.2	42	124	*	
p-Terphenyl-d14	64.0	51	135		

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

* Surrogate or spike compound out of range

UJ Undetected; the MDL and RL are estimated due to quality control discrepancies.

Sample Number: L0705211-02
 Client ID: TB-5-8-07
 Matrix: Water
 Workgroup Number: WG240312
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS8
 Prep Date: 05/15/2007 13:36
 Cal Date: 05/06/2007 18:59
 Run Date: 05/15/2007 13:36
 File ID: 8M336482

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-02
 Client ID: TB-5-8-07
 Matrix: Water
 Workgroup Number: WG240312
 Collect Date: 05/08/2007 12:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS8
 Prep Date: 05/15/2007 13:36
 Cal Date: 05/06/2007 18:59
 Run Date: 05/15/2007 13:36
 File ID: 8M336482

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200
1,4-Dichlorobenzene	106-46-7		U	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	3.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2	0.641	F	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
MEK (2-Butanone)	78-93-3		U	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-, p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250

1000497

Report Number: L0705211

Report Date : May 15, 2007

Sample Number: L0705211-02
Client ID: TB-5-8-07
Matrix: Water
Workgroup Number: WG240312
Collect Date: 05/08/2007 12:45
Sample Tag: 01

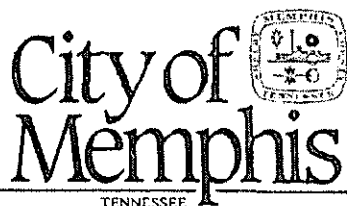
PrePrep Method: NONE
Prep Method: 5030B
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 05/15/2007 13:36
Cal Date: 05/06/2007 18:59
Run Date: 05/15/2007 13:36
File ID: 8M336482

Analyte	CAS. Number	Result	Qual	RL	MDL
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl chloride	75-01-4		U	1.00	0.250
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	98.0	85	115		
1,2-Dichloroethane-d4	94.0	72	119		
Toluene-d8	94.2	81	120		
4-Bromofluorobenzene	84.7	76	119		

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.



DR WILLIE W HERENTON - Mayor
KEITH L McGEE - Chief Administrative Officer
DIVISION OF PUBLIC WORKS
JERRY R. COLLINS JR. - Director
Maynard C. Stiles Wastewater Treatment Plant

Thursday, January 03, 2008

Mr. Thomas Holmes
Project Manager
e2M Memphis Field office
2241 Truitt Street
Memphis, TN 38114

RE: Request for disposal of groundwater
Industrial Wastewater Discharge Agreement Permit # S-NN3-097
DES-DDC-EE (Memphis) @ 2163 Airways Blvd., Memphis, Tennessee

Dear Mr. Holmes:

We have received and approve your request to discharge of 21,000 gallons of groundwater from monitoring wells into the sanitary sewer system at the above referenced location. The discharge point is the sewer system through the existing discharge line for the ground water recovery system at the Dunn Field. The discharge flow rate should not exceed 30 gallon per minute.

This approval is for this batch of treated groundwater only.

If you should have any questions, please feel free to contact me at (901) 576-4337.

Sincerely,

Akil AL-Chokhachi
Environmental Engineer



2 January 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Wastewater Discharge Request
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc., on behalf of the Defense Logistics Agency, requests permission to discharge wastewater to the City of Memphis Sewer System. The wastewater was generated at Defense Depot Memphis, Tennessee during recent site restoration activities and consists of stormwater pumped from an excavation at Dunn Field.

A grab sample of the wastewater was collected on 10 December 2007 and submitted to Kemron Environmental Services for analysis of metals and volatile and semi-volatile organic compounds in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the complete laboratory report are attached. Constituents were below the concentration limits, except for two metals. Aluminum exceeded the daily and monthly limits, while arsenic exceeded only the monthly limit. If approved, the wastewater volume of approximately 21,000 gallons will be discharged to the sewer system through the existing discharge line for the groundwater recovery system at Dunn Field.

If you need additional information, please contact the undersigned at 404-237-3982 or tholmes@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Thomas C. Holmes
Project Manager

cc: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE

Sample Identification	IDW-TA-3	City of Memphis Industrial Wastewater Allowable Levels	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	12/10/07		
Corrosivity	SU	SU	SU
pH	8.08	5.5 to 10	5.5 to 10
TAL Metals ⁽¹⁾	mg/L	mg/L	mg/L
Aluminum (total)	5.28	1.000	2.000
Antimony (total)	0.00413	NS	NS
Arsenic (total)	0.0602	0.040	0.100
Barium (total)	0.126	NS	NS
Cadmium (total)	ND	0.010	0.020
Calcium (total)	54.2	NS	NS
Chromium (total)	0.00623F	0.200	0.400
Copper (total)	0.0107F	0.200	0.400
Iron (total)	5.3	10.000	20.000
Lead (total)	0.00861	0.150	0.300
Magnesium (total)	6.85	NS	NS
Manganese (total)	0.156	NS	NS
Mercury (total)	ND	0.001	0.002
Nickel (total)	ND	0.100	0.300
Potassium (total)	5.42	NS	NS
Selenium (total)	0.000896F	NS	NS
Sodium (total)	3.67	NS	NS
Zinc (total)	0.0446	0.300	1.000
TCL Volatile Organics ⁽²⁾	ug/L	ug/L	ug/L
Acetone	ND	NS	NS
Carbon Tetrachloride	ND	20	40
Chloroform	0.139F	100	200
1,1-dichloroethene	ND	50	100
Cis-1,2-dichloroethene	ND	80	100
Trans-1,2-dichloroethene	ND	50	100
Methylene Chloride	ND	10	20
1,1,2,2-tetrachloroethane	ND	500	1000
Tetrachloroethene	ND	60	120
Toluene	ND	20	40
1,1,1-trichloroethane	ND	10	20
1,1,2-trichloroethane	ND	50	100
Trichloroethene	ND	400	800
TCL Semi-Volatile Organics ⁽³⁾	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	ND	10	20
Di-n-butyl Phthalate	ND	30	60
Naphthalene	ND	10	20
Phenol	ND	10	20

Notes

(1) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A) and Arsenic, Antimony, Thallium and Selenium (EPA Method 6020)

(2) TCL Volatile Organic analyses performed by EPA Method 8260B

(3) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

NS = No standard listed in the Industrial Wastewater Discharge Permit

ND = Analyte not detected

F = Found, the analyte was positively identified with concentration above MDL but below the reporting limit

S020001
1000501

LABORATORY REPORT

L0712279

12/21/07 13:03

Submitted By

KEMRON Environmental Services

156 Starlite Drive

Marietta, OH 45750

(740) 373-4071

For

Account Name: Engineering-Environmental Management

184 Creekside Park

Suite 100

Spring Branch, TX 78070

Attention: Lance Hines

Account Number: 2886

Work ID: DDMT

Sample Summary

Client ID	Lab ID	Date Collected	Date Received
IDW-TA-3	L0712279-01	12/10/2007 13:30	12/11/2007

1000502
1000001

KEMRON ENVIRONMENTAL SERVICES

Report Number: L0712279

Report Date : December 21, 2007

Sample Number: L0712279-01
Client ID: IDW-TA-3
Matrix: Water
Workgroup Number: WG259070
Collect Date: 12/10/2007 13:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3520C
Analytical Method: 8270C
Analyst: ASP
Dilution: 1
Units: ug/L

Instrument: HPMS12
Prep Date: 12/17/2007 08:30
Cal Date: 12/17/2007 19:33
Run Date: 12/19/2007 15:19
File ID: 12M19840

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,4-Trichlorobenzene	120-82-1		U	11.1	2.78
1,2-Dichlorobenzene	95-50-1		U	11.1	2.78
1,3-Dichlorobenzene	541-73-1		U	11.1	2.78
1,4-Dichlorobenzene	106-46-7		U	11.1	2.78
2,4-Dinitrotoluene	121-14-2		U	11.1	2.78
2,6-Dinitrotoluene	606-20-2		U	11.1	2.78
2-Chloronaphthalene	91-58-7		U	11.1	2.78
2-Methylnaphthalene	91-57-6		U	11.1	2.78
2-Nitroaniline	88-74-4		U	55.6	13.9
3-Nitroaniline	99-09-2		U	55.6	13.9
3,3'-Dichlorobenzidine	91-94-1		U	22.2	2.78
4-Bromophenyl-phenylether	101-55-3		U	11.1	2.78
4-Chloroaniline	106-47-8		U	22.2	5.56
4-Chlorophenyl-phenyl ether	7005-72-3		U	11.1	2.78
4-Nitroaniline	100-01-6		U	55.6	13.9
Acenaphthylene	208-96-8		U	11.1	2.78
Acenaphthene	83-32-9		U	11.1	2.78
Anthracene	120-12-7		U	11.1	2.78
Benzo(a)anthracene	56-55-3		U	11.1	2.78
Benzo(a)pyrene	50-32-8		U	11.1	2.78
Benzo(k)fluoranthene	207-08-9		U	11.1	2.78
Benzo(b)fluoranthene	205-99-2		U	11.1	2.78
Benzo(g,h,i)Perylene	191-24-2		U	11.1	2.78
Benzyl alcohol	100-51-6		U	11.1	2.78
Bis(2-Chloroethoxy)Methane	111-91-1		U	11.1	2.78
Bis(2-Chloroethyl)ether	111-44-4		U	11.1	2.78
bis(2-Chloroisopropyl)ether	39638-32-9		U	11.1	2.78
bis(2-Ethylhexyl)phthalate	117-81-7		U	11.1	2.78
Butylbenzylphthalate	85-68-7		U	11.1	2.78
Chrysene	218-01-9		U	11.1	2.78
Di-N-Butylphthalate	84-74-2		U	11.1	2.78
Di-n-octylphthalate	117-84-0		U	11.1	2.78
Dibenzo(a,h)Anthracene	53-70-3		U	11.1	2.78
Dibenzofuran	132-64-9		U	11.1	2.78
Diethylphthalate	84-66-2		U	11.1	2.78
Dimethylphthalate	131-11-3		U	11.1	2.78
Fluoranthene	206-44-0		U	11.1	2.78
Fluorene	86-73-7		U	11.1	2.78
Hexachlorobenzene	118-74-1		U	11.1	2.78
Hexachlorobutadiene	87-68-3		U	11.1	2.78
Hexachlorocyclopentadiene	77-47-4		U	11.1	2.78
Hexachloroethane	67-72-1		U	11.1	2.78
Indeno(1,2,3-cd)pyrene	193-39-5		U	11.1	2.78
Isophorone	78-59-1		U	11.1	2.78
N-Nitrosodiphenylamine	86-30-6		U	11.1	2.78
N-Nitroso-di-n-propylamine	621-64-7		U	11.1	2.78
Naphthalene	91-20-3		U	11.1	2.78
Nitrobenzene	98-95-3		U	11.1	2.78

KEMRON ENVIRONMENTAL SERVICES

1000503

Report Number: L0712279

Report Date : December 21, 2007

Sample Number: L0712279-01
 Client ID: IDW-TA-3
 Matrix: Water
 Workgroup Number: WG259070
 Collect Date: 12/10/2007 13:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: ASP
 Dilution: 1
 Units: ug/L

Instrument: HPMS12
 Prep Date: 12/17/2007 08:30
 Cal Date: 12/17/2007 19:33
 Run Date: 12/19/2007 15:19
 File ID: 12M19840

Analyte	CAS. Number	Result	Qual	RL	MDL
Phenanthrene	85-01-8		U	11.1	2.78
Pyrene	129-00-0		U	11.1	2.78
2,4,5-Trichlorophenol	95-95-4		U	11.1	2.78
2,4,6-Trichlorophenol	88-06-2		U	11.1	2.78
2,4-Dichlorophenol	120-83-2		U	11.1	2.78
2,4-Dimethylphenol	105-67-9		U	11.1	2.78
2,4-Dinitrophenol	51-28-5		U	55.6	13.9
2-Chlorophenol	95-57-8		U	11.1	2.78
2-Methylphenol	95-48-7		U	11.1	2.78
2-Nitrophenol	88-75-5		U	11.1	2.78
4,6-Dinitro-2-methylphenol	534-52-1		U	55.6	13.9
4-Chloro-3-methylphenol	59-50-7		U	11.1	2.78
3-,4-Methylphenol	106-44-5		U	55.6	2.78
4-Nitrophenol	100-02-7		U	55.6	13.9
Benzoic acid	65-85-0		U	55.6	13.9
Pentachlorophenol	87-86-5		U	55.6	13.9
Phenol	108-95-2		U	11.1	2.78

Surrogate	% Recovery	Lower	Upper	Qual
2-Fluorophenol	68.5	20	120	
Phenol-d5	76.0	20	120	
Nitrobenzene-d5	80.9	41	120	
2-Fluorobiphenyl	80.0	48	120	
2,4,6-Tribromophenol	97.6	42	124	
p-Terphenyl-d14	57.9	51	135	

U Undetected; the analyte was analyzed for, but not detected.

Sample Number: L0712279-01
 Client ID: IDW-TA-3
 Matrix: Water
 Workgroup Number: WG258291
 Collect Date: 12/10/2007 13:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: METHOD
 Analytical Method: 7470A
 Analyst: ED
 Dilution: 1
 Units: mg/L

Instrument: HYDRA
 Prep Date: 12/12/2007 06:50
 Cal Date: 12/13/2007 09:02
 Run Date: 12/13/2007 09:42
 File ID: HY.121307.094247

Analyte	CAS. Number	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000244	0.000100

U Undetected; the analyte was analyzed for, but not detected.

001000504

KEMRON ENVIRONMENTAL SERVICES

Report Number: L0712279

Report Date : December 21, 2007

Sample Number: L0712279-01
Client ID: IDW-TA-3
Matrix: Water
Workgroup Number: WG258501
Collect Date: 12/10/2007 13:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 1
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 12/13/2007 06:30
Cal Date: 12/14/2007 09:30
Run Date: 12/14/2007 11:48
File ID: EL121407.114848

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	0.0602		0.00100	0.000250
Antimony, Total	7440-36-0	0.00413		0.00100	0.000250
Selenium, Total	7782-49-2	0.000896	F	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.0000500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L0712279-01
Client ID: IDW-TA-3
Matrix: Water
Workgroup Number: WG258229
Collect Date: 12/10/2007 13:30

PrePrep Method: NONE
Prep Method: 9040C
Analytical Method: 9040C
Analyst: TMM
Dilution: 1
Units: UNITS

Instrument: ORION-710A
Prep Date: 12/11/2007 17:00
Cal Date:
Run Date: 12/11/2007 17:00
File ID: OR07121709542704

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH	10-29-7	8.08			

Sample Number: L0712279-01
Client ID: IDW-TA-3
Matrix: Water
Workgroup Number: WG258797
Collect Date: 12/10/2007 13:30
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B
Analytical Method: 8260B
Analyst: CMS
Dilution: 1
Units: ug/L

Instrument: HPMS6
Prep Date: 12/18/2007 06:26
Cal Date: 12/11/2007 14:48
Run Date: 12/18/2007 06:26
File ID: 6M71822

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200

KEMRON ENVIRONMENTAL SERVICES

3020001
1000505

Report Number: L0712279

Report Date : December 21, 2007

Sample Number: L0712279-01
 Client ID: IDW-TA-3
 Matrix: Water
 Workgroup Number: WG258797
 Collect Date: 12/10/2007 13:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: CMS
 Dilution: 1
 Units: ug/L

Instrument: HPMS6
 Prep Date: 12/18/2007 06:26
 Cal Date: 12/11/2007 14:48
 Run Date: 12/18/2007 06:26
 File ID: 6M71822

Analyte	CAS. Number	Result	Qual	RL	MDL
1,4-Dichlorobenzene	106-46-7		U	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3	0.139	F	0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		Q	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
MEX (2-Butanone)	78-93-3		U	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-,p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl acetate	108-05-4		Q	5.00	2.50
Vinyl chloride	75-01-4		U	1.00	0.250

Report Number: L0712279

Report Date : December 21, 2007

Sample Number: L0712279-01
 Client ID: IDW-TA-3
 Matrix: Water
 Workgroup Number: WG258797
 Collect Date: 12/10/2007 13:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: CMS
 Dilution: 1
 Units: ug/L

Instrument: HPMS6
 Prep Date: 12/18/2007 06:26
 Cal Date: 12/11/2007 14:48
 Run Date: 12/18/2007 06:26
 File ID: 6M71822

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	107	85	115	
1,2-Dichloroethane-d4	113	72	119	
Toluene-d8	108	81	120	
4-Bromofluorobenzene	103	76	119	

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L0712279-01
 Client ID: IDW-TA-3
 Matrix: Water
 Workgroup Number: WG258909
 Collect Date: 12/10/2007 13:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3005A
 Analytical Method: 6010B
 Analyst: JYH
 Dilution: 1
 Units: mg/L

Instrument: PE-ICP2
 Prep Date: 12/12/2007 06:00
 Cal Date: 12/18/2007 10:03
 Run Date: 12/18/2007 21:45
 File ID: P2.121807.214539

Analyte	CAS. Number	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	5.28		0.100	0.0500
Silver, Total	7440-22-4		U	0.0100	0.00500
Barium, Total	7440-39-3	0.126		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.0100	0.000500
Calcium, Total	7440-70-2	54.2		0.200	0.100
Cadmium, Total	7440-43-9		U	0.0100	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Chromium, Total	7440-47-3	0.00623	F	0.0200	0.00250
Copper, Total	7440-50-8	0.0107	F	0.0200	0.00500
Iron, Total	7439-89-6	5.30		0.100	0.0250
Potassium, Total	7440-09-7	5.42		1.00	0.250
Magnesium, Total	7439-95-4	6.85		0.500	0.250
Manganese, Total	7439-96-5	0.156		0.0100	0.00500
Nickel, Total	7440-02-0		U	0.0400	0.00500
Lead, Total	7439-92-1	0.00861		0.00500	0.00250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6	0.0446		0.0200	0.00500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L0712279-01
 Client ID: IDW-TA-3
 Matrix: Water
 Workgroup Number: WG258909
 Collect Date: 12/10/2007 13:30
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3005A
 Analytical Method: 6010B
 Analyst: JYH
 Dilution: 1
 Units: mg/L

Instrument: PE-ICP2
 Prep Date: 12/12/2007 06:00
 Cal Date: 12/19/2007 09:17
 Run Date: 12/19/2007 12:14
 File ID: P2.121907.121422

Analyte	CAS. Number	Result	Qual	RL	MDL
Sodium, Total	7440-23-5	3.67		0.500	0.250



DR. WILLIE W. HERENTON - Mayor
KEITH L. McGEE - Chief Administrative Officer
DIVISION OF PUBLIC WORKS
JERRY R. COLLINS JR. - Director
Maynard C. Stiles Wastewater Treatment Plant

Wednesday, January 30, 2008

Mr. Thomas Holmes
Project Manager
Engineering Environmental Management
P.O. Box 191253
Atlanta, Georgia 31119-1253

RE: Request for disposal of groundwater, Jan. 25 and 28, 2008
Industrial Wastewater Discharge Agreement Permit # S-NN3-097
DES-DDC-EE (Memphis) @ 2163 Airways Blvd., Memphis, Tennessee

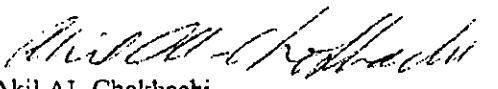
Dear Mr. Holmes:

We have received and approve your request to discharge approximately 20,500 gallons of groundwater from monitoring wells into the sanitary sewer system at the above referenced location. The discharge point is a manhole located at Parkway and Sittler Street on the property of the Defense Depot. The discharge flow rate should not exceed 30 gallon per minute.

This approval is for this batch of treated groundwater only.

If you should have any questions, please feel free to contact me at (901) 576-4337.

Sincerely,


Akil AL-Chokhachi
Environmental Engineer

e2M Memphis Field office
2241 Truitt Street
Memphis, TN 38114

Fax # (901)774-6718



28 January 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Wastewater Discharge Request
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc., on behalf of the Defense Logistics Agency, requests permission to discharge wastewater to the City of Memphis Sewer System. The wastewater was generated at Defense Depot Memphis, Tennessee during recent site restoration activities and consists of stormwater pumped from an excavation at Dunn Field. The wastewater was pumped into two 20,000-gallon frac tanks.

A grab sample of the wastewater was collected from each tank on 14 January 2008 and submitted to Kemron Environmental Services for analysis of metals and volatile and semi-volatile organic compounds in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the complete laboratory report are attached. All constituents were below the concentration limits, except for two metals in one of the two samples (TA-3-EX-Water-3). Aluminum exceeded the daily and monthly limits, and arsenic exceeded the daily limit only. If approved, the wastewater volume of approximately 41,000 gallons will be discharged to the sewer system through the existing discharge line for the groundwater recovery system at Dunn Field.

If you need additional information, please contact the undersigned at 404-237-3982 or thomas.holmes@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Thomas C Holmes

Thomas C. Holmes
Project Manager

cc: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Kevin Sedlak, e²M

engineering-environmental Management, Inc.

2451 Cumberland Parkway, Suite 3703, Atlanta, Georgia 30339 (404)799-1046

Sample Identification	TA-3-EX-Water-2	TA-3-EX-Water-3	Industrial Wastewater Allowable Levels	
			Monthly Average Maximum	One Day Maximum
Date Sample Collected	1/14/2008	1/14/2008		
Corrosivity	SU	SU	SU	SU
pH	6.86	8.14	5.5 to 10	5.5 to 10
TAL Metals⁽¹⁾	mg/L	mg/L	mg/L	mg/L
Aluminum (total)	0.328	9.54	1.000	2.000
Antimony (total)	0.0012	0.00147	NS	NS
Arsenic (total)	ND	0.0544	0.040	0.100
Barium (total)	0.0907	0.188	NS	NS
Cadmium (total)	ND	ND	0.010	0.020
Calcium (total)	70.8	36.1	NS	NS
Chromium (total)	ND	0.0128F	0.200	0.400
Copper (total)	ND	0.0146F	0.200	0.400
Iron (total)	0.319	9.08	10.000	20.000
Lead (total)	ND	0.0225	0.150	0.300
Magnesium (total)	6.64	4.73	NS	NS
Manganese (total)	0.0407	0.150	NS	NS
Mercury (total)	ND	ND	0.001	0.002
Nickel (total)	ND	0.00655F	0.100	0.300
Potassium (total)	4.53	4.44	NS	NS
Selenium (total)	ND	0.000812F	NS	NS
Sodium (total)	4.17	3.00	NS	NS
Thallium (total)	0.00043	0.000173F	NS	NS
Vanadium (total)	ND	0.0198	NS	NS
Zinc (total)	0.00790F	0.0813	0.300	1.000
TCL Volatile Organics⁽²⁾	ug/L	ug/L	ug/L	ug/L
1,3,5-Trimethylbenzene	1.06	1.45	NS	NS
Acetone	6F	5.64F	NS	NS
Carbon Tetrachloride	ND	ND	20	40
Chloroform	0.222F	ND	100	200
1,1-dichloroethene	ND	ND	50	100
Cis-1,2-dichloroethene	0.278F	ND	80	100
Trans-1,2-dichloroethene	ND	ND	50	100
Methylene Chloride	ND	ND	10	20
n-Butylbenzene	0.823F	0.82F	NS	NS
o-Xylene	0.766F	0.722F	NS	NS
p-isopropyltoluene	0.775F	0.712F	NS	NS
1,1,2,2-tetrachloroethane	ND	ND	500	1000
Tetrachloroethene	ND	ND	60	120
Toluene	ND	ND	20	40
1,1,1-trichloroethane	ND	ND	10	20
1,1,2-trichloroethane	ND	ND	50	100
Trichloroethene	0.479F	ND	400	800
TCL Semi-Volatile Organics⁽³⁾	ug/L	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	ND	ND	10	20
Butyl benzyl phthalate	7.96Q	23.2Q	NS	NS
Di-n-butyl Phthalate	ND	ND	30	60
Naphthalene	ND	ND UJ	10	20
Phenol	ND	ND	10	20

Notes

(1) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A) and Arsenic, Antimony, Thallium and Selenium (EPA Method 6020)

(2) TCL Volatile Organic analyses performed by EPA Method 8260B

(3) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

NS = No standard listed in the Industrial Wastewater Discharge Permit

ND = Analyte not detected; Reporting Limit shown

F = Found, the analyte was positively identified with concentration above MDL but below the reporting limit

Q = One or more quality control criteria failed.

UJ = Undetected; the MDL and RL are estimated due to quality control discrepancies

LABORATORY REPORT

L08010301

01/22/08 12:05

Submitted By

KEMRON Environmental Services

156 Starlite Drive

Marietta, OH 45750

(740) 373-4071

For

Account Name: Engineering-Environmental Management

184 Creekside Park

Suite 100

Spring Branch, TX 78070

Attention: Lance Hines

Account Number: 2886

Work ID: LOESS_ET&D

Sample Summary

Client ID	QC Type	Lab ID	Date Collected	Date Received
TA-3-49		L08010301-01	01/14/2008 07:40	01/15/2008
TA-3-38		L08010301-02	01/14/2008 07:45	01/15/2008
TA-3-16		L08010301-03	01/14/2008 07:50	01/15/2008
TA-3-53		L08010301-04	01/14/2008 08:20	01/15/2008
TA-3-42		L08010301-05	01/14/2008 08:25	01/15/2008
TA-3-06		L08010301-06	01/14/2008 08:30	01/15/2008
TA-3-35		L08010301-07	01/14/2008 09:00	01/15/2008
TA-3-13		L08010301-08	01/14/2008 09:10	01/15/2008
TA-3-12		L08010301-09	01/14/2008 09:20	01/15/2008
TA-3-50		L08010301-10	01/14/2008 10:00	01/15/2008
TA-3-50	MS	L08010301-11	01/14/2008 10:00	01/15/2008
TA-3-50	MSD	L08010301-12	01/14/2008 10:00	01/15/2008
TA-3-27		L08010301-13	01/14/2008 10:05	01/15/2008
TA-3-10		L08010301-14	01/14/2008 10:15	01/15/2008
TA-3-17		L08010301-15	01/14/2008 10:25	01/15/2008
TA-3-01		L08010301-16	01/14/2008 10:35	01/15/2008
DUP1		L08010301-17	01/14/2008 11:00	01/15/2008
DUP2		L08010301-18	01/14/2008 11:10	01/15/2008
TB-011408		L08010301-19	01/14/2008 15:00	01/15/2008
TA-3-EX-WATER-2		L08010301-20	01/14/2008 10:45	01/15/2008
TA-3-EX-WATER-3		L08010301-21	01/14/2008 11:00	01/15/2008

Report Number: L08010301
 Report Date : January 22, 2008

Sample Number: L08010301-19
 Client ID: TB-011408
 Matrix: Water
 Workgroup Number: WG260978
 Collect Date: 01/14/2008 15:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: TMB
 Dilution: 1
 Units: ug/L

Instrument: HPMS10
 Prep Date: 01/18/2008 12:00
 Cal Date: 01/09/2008 18:38
 Run Date: 01/18/2008 12:00
 File ID: 10M61970

Analyte	CAS. Number	Result	Qual	RL	MDL
MEK (2-Butanone)	78-93-3		Q	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		Q	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-, p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl acetate	108-05-4		Q	5.00	2.50
Vinyl chloride	75-01-4		U	1.00	0.250

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	87.5	85	115	
1,2-Dichloroethane-d4	92.0	72	119	
Toluene-d8	98.2	81	120	
4-Bromofluorobenzene	102	76	119	

U Undetected; the analyte was analyzed for, but not detected.
 Q One or more quality control criteria failed. See narrative.

Sample Number: L08010301-20
 Client ID: TA-3-EX-WATER-2
 Matrix: Water
 Workgroup Number: WG260721
 Collect Date: 01/14/2008 10:45

PrePrep Method: NONE
 Prep Method: 9040C
 Analytical Method: 9040C
 Analyst: DLP
 Dilution: 1
 Units: UNITS

Instrument: ORION-710A
 Prep Date: 01/15/2008 16:45
 Cal Date:
 Run Date: 01/15/2008 16:45
 File ID: OR08011616095401

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH	10-29-7	8.30			

Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-20
 Client ID: TA-3-EX-WATER-2
 Matrix: Water
 Workgroup Number: WG260801
 Collect Date: 01/14/2008 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3015
 Analytical Method: 6020
 Analyst: JYH
 Dilution: 1
 Units: mg/L

Instrument: ELAN-ICP
 Prep Date: 01/16/2008 08:20
 Cal Date: 01/17/2008 11:10
 Run Date: 01/17/2008 21:36
 File ID: EL.011708.213625

Analyte	CAS. Number	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.00120		0.00100	0.000250
Selenium, Total	7782-49-2		U	0.00100	0.000500
Thallium, Total	7440-28-0	0.000430		0.000200	0.0000500

U Undetected; the analyte was analyzed for, but not detected.

Sample Number: L08010301-20
 Client ID: TA-3-EX-WATER-2
 Matrix: Water
 Workgroup Number: WG261061
 Collect Date: 01/14/2008 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS4
 Prep Date: 01/16/2008 11:00
 Cal Date: 01/18/2008 13:25
 Run Date: 01/18/2008 18:36
 File ID: 4M40991

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,4-Trichlorobenzene	120-82-1		U	10.9	2.72
1,2-Dichlorobenzene	95-50-1		U	10.9	2.72
1,3-Dichlorobenzene	541-73-1		U	10.9	2.72
1,4-Dichlorobenzene	106-46-7		U	10.9	2.72
2,4-Dinitrotoluene	121-14-2		Q	10.9	2.72
2,6-Dinitrotoluene	606-20-2		Q	10.9	2.72
2-Chloronaphthalene	91-58-7		U	10.9	2.72
2-Methylnaphthalene	91-57-6		U	10.9	2.72
2-Nitroaniline	88-74-4		Q	54.3	13.6
3-Nitroaniline	99-09-2		U	54.3	13.6
3,3'-Dichlorobenzidine	91-94-1		U	21.7	2.72
4-Bromophenyl-phenylether	101-55-3		U	10.9	2.72
4-Chloroaniline	106-47-8		U	21.7	5.43
4-Chlorophenyl-phenyl ether	7005-72-3		U	10.9	2.72
4-Nitroaniline	100-01-6		U	54.3	13.6
Acenaphthylene	208-96-8		U	10.9	2.72
Acenaphthene	83-32-9		U	10.9	2.72
Anthracene	120-12-7		U	10.9	2.72
Benzo(a)anthracene	56-55-3		U	10.9	2.72
Benzo(a)pyrene	50-32-8		U	10.9	2.72
Benzo(k)fluoranthene	207-08-9		U	10.9	2.72
Benzo(b)fluoranthene	205-99-2		U	10.9	2.72
Benzo(g,h,i)Perylene	191-24-2		U	10.9	2.72
Benzyl alcohol	100-51-6		U	10.9	2.72
Bis(2-Chloroethoxy)Methane	111-91-1		U	10.9	2.72
Bis(2-Chloroethyl)ether	111-44-4		U	10.9	2.72
bis(2-Chloroisopropyl)ether	39638-32-9		U	10.9	2.72
bis(2-Ethylhexyl)phthalate	117-81-7		U	10.9	2.72
Butylbenzylphthalate	85-68-7	7.96	Q	10.9	2.72
Chrysene	218-01-9		U	10.9	2.72
Di-N-Butylphthalate	84-74-2		U	10.9	2.72
Di-n-octylphthalate	117-84-0		U	10.9	2.72
Dibenzo(a,h)Anthracene	53-70-3		U	10.9	2.72
Dibenzofuran	132-64-9		U	10.9	2.72

1000513

3120001

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-20

Client ID: TA-3-EX-WATER-2

Matrix: Water

Workgroup Number: WG261061

Collect Date: 01/14/2008 10:45

Sample Tag: 01

PrePrep Method: NONE

Prep Method: 3520C

Analytical Method: 8270C

Analyst: MES

Dilution: 1

Units: ug/L

Instrument: HPMS4

Prep Date: 01/16/2008 11:00

Cal Date: 01/18/2008 13:25

Run Date: 01/18/2008 18:36

File ID: 4M40991

Analyte	CAS. Number	Result	Qual	RL	MDL
Diethylphthalate	84-66-2		U	10.9	2.72
Dimethylphthalate	131-11-3		U	10.9	2.72
Fluoranthene	206-44-0		U	10.9	2.72
Fluorene	86-73-7		U	10.9	2.72
Hexachlorobenzene	118-74-1		U	10.9	2.72
Hexachlorobutadiene	87-68-3		U	10.9	2.72
Hexachlorocyclopentadiene	77-47-4		U	10.9	2.72
Hexachloroethane	67-72-1		U	10.9	2.72
Indeno(1,2,3-cd)pyrene	193-39-5		U	10.9	2.72
Isophorone	78-59-1		U	10.9	2.72
N-Nitrosodiphenylamine	86-30-6		U	10.9	2.72
N-Nitroso-di-n-propylamine	621-64-7		U	10.9	2.72
Naphthalene	91-20-3		U	10.9	2.72
Nitrobenzene	98-95-3		U	10.9	2.72
Phenanthrene	85-01-8		U	10.9	2.72
Pyrene	129-00-0		U	10.9	2.72
2,4,5-Trichlorophenol	95-95-4		U	10.9	2.72
2,4,6-Trichlorophenol	88-06-2		U	10.9	2.72
2,4-Dichlorophenol	120-83-2		U	10.9	2.72
2,4-Dimethylphenol	105-67-9		U	10.9	2.72
2,4-Dinitrophenol	51-28-5		U	54.3	13.6
2-Chlorophenol	95-57-8		U	10.9	2.72
2-Methylphenol	95-48-7		U	10.9	2.72
2-Nitrophenol	88-75-5		U	10.9	2.72
4,6-Dinitro-2-methylphenol	534-52-1		U	54.3	13.6
4-Chloro-3-methylphenol	59-50-7		U	10.9	2.72
3-,4-Methylphenol	106-44-5		Q	54.3	2.72
4-Nitrophenol	100-02-7		Q	54.3	13.6
Benzoic acid	65-85-0		U	54.3	13.6
Pentachlorophenol	87-86-5		Q	54.3	13.6
Phenol	108-95-2		U	10.9	2.72

Surrogate	% Recovery	Lower	Upper	Qual
2-Fluorophenol	81.2	20	120	
Phenol-d5	94.3	20	120	
Nitrobenzene-d5	98.7	41	120	
2-Fluorobiphenyl	91.2	48	120	
2,4,6-Tribromophenol	117	42	124	
p-Terphenyl-d14	92.8	51	135	

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

1000514

Sample Number: L08010301-20
 Client ID: TA-3-EX-WATER-2
 Matrix: Water
 Workgroup Number: WG260978
 Collect Date: 01/14/2008 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: TMB
 Dilution: 1
 Units: ug/L

Instrument: HPMS10
 Prep Date: 01/18/2008 13:02
 Cal Date: 01/09/2008 18:38
 Run Date: 01/18/2008 13:02
 File ID: 10M61972

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8	1.06		1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200
1,4-Dichlorobenzene	106-46-7		U	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		Q	1.00	0.250
Acetone	67-64-1	6.00	F	10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3	0.222	F	0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2	0.278	F	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500

1000515

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-20
 Client ID: TA-3-EX-WATER-2
 Matrix: Water
 Workgroup Number: WG260978
 Collect Date: 01/14/2008 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: TMB
 Dilution: 1
 Units ug/L

Instrument: HPMS10
 Prep Date: 01/18/2008 13:02
 Cal Date: 01/09/2008 18:38
 Run Date: 01/18/2008 13:02
 File ID: 10M61972

Analyte	CAS. Number	Result	Qual	RL	MDL
MEK (2-Butanone)	78-93-3		Q	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		Q	10.0	2.50
n-Butylbenzene	104-51-8	0.823	F	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-,p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6	0.766	F	1.00	0.250
p-Isopropyltoluene	99-87-6	0.775	F	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6	0.479	F	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl acetate	108-05-4		Q	5.00	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	88.4	85	115		
1,2-Dichloroethane-d4	94.6	72	119		
Toluene-d8	97.2	81	120		
4-Bromofluorobenzene	99.0	76	119		

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L08010301-20
 Client ID: TA-3-EX-WATER-2
 Matrix: Water
 Workgroup Number: WG260819
 Collect Date: 01/14/2008 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3005A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units mg/L

Instrument: PE-ICP2
 Prep Date: 01/16/2008 06:00
 Cal Date: 01/16/2008 13:27
 Run Date: 01/16/2008 18:10
 File ID: P2.011608.181029

Analyte	CAS. Number	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	0.328		0.100	0.0500
Silver, Total	7440-22-4		U	0.0100	0.00500
Arsenic, Total	7440-38-2		U	0.0100	0.00500
Barium, Total	7440-39-3	0.0907		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.0100	0.000500
Calcium, Total	7440-70-2	70.8		0.200	0.100
Cadmium, Total	7440-43-9		U	0.0100	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Chromium, Total	7440-47-3		U	0.0200	0.00250
Copper, Total	7440-50-8		U	0.0200	0.00500
Iron, Total	7439-89-6	0.319		0.100	0.0250
Potassium, Total	7440-09-7	4.53		1.00	0.250

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

1000516

Sample Number: L08010301-20
Client ID: TA-3-EX-WATER-2
Matrix: Water
Workgroup Number: WG260819
Collect Date: 01/14/2008 10:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: KHR
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 01/16/2008 06:00
Cal Date: 01/16/2008 13:27
Run Date: 01/16/2008 18:10
File ID: P2.011608.181029

Analyte	CAS. Number	Result	Qual	RL	MDL
Magnesium, Total	7439-95-4	6.64		0.500	0.250
Manganese, Total	7439-96-5	0.0407		0.0100	0.00500
Sodium, Total	7440-23-5	4.17		0.500	0.250
Nickel, Total	7440-02-0		U	0.0400	0.00500
Lead, Total	7439-92-1		U	0.00500	0.00250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6	0.00790	F	0.0200	0.00500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L08010301-20
Client ID: TA-3-EX-WATER-2
Matrix: Water
Workgroup Number: WG260933
Collect Date: 01/14/2008 10:45
Sample Tag: 01

PrePrep Method: NONE
Prep Method: METHOD
Analytical Method: 7470A
Analyst: ED
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 01/17/2008 07:25
Cal Date: 01/18/2008 08:27
Run Date: 01/18/2008 08:44
File ID: HY.011808.084455

Analyte	CAS. Number	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100

U Undetected; the analyte was analyzed for, but not detected.

Sample Number: L08010301-21
Client ID: TA-3-EX-WATER-3
Matrix: Water
Workgroup Number: WG260721
Collect Date: 01/14/2008 11:00

PrePrep Method: NONE
Prep Method: 9040C
Analytical Method: 9040C
Analyst: DLP
Dilution: 1
Units: UNITS

Instrument: ORION-710A
Prep Date: 01/15/2008 16:45
Cal Date:
Run Date: 01/15/2008 16:45
File ID: OR08011616100301

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH	10-29-7	8.14			

1000517

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date: January 22, 2008

Sample Number L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix: Water
 Workgroup Number: WG260801
 Collect Date: 01/14/2008 11:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3015
 Analytical Method: 6020
 Analyst: JYH
 Dilution: 1
 Units: mg/L

Instrument: ELAN-ICP
 Prep Date: 01/16/2008 08:20
 Cal Date: 01/17/2008 11:10
 Run Date: 01/17/2008 21:56
 File ID: EL.011708.215612

Analyte	CAS. Number	Result	Qual	RL	MDL
Antimony, Total	7440-36-0	0.00147		0.00100	0.000250
Selenium, Total	7782-49-2	0.000812	F	0.00100	0.000500
Thallium, Total	7440-28-0	0.000173	F	0.000200	0.0000500

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix: Water
 Workgroup Number: WG260933
 Collect Date: 01/14/2008 11:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: METHOD
 Analytical Method: 7470A
 Analyst: ED
 Dilution: 1
 Units: mg/L

Instrument: HYDRA
 Prep Date: 01/17/2008 07:25
 Cal Date: 01/18/2008 08:27
 Run Date: 01/18/2008 08:48
 File ID: HY.011808.084822

Analyte	CAS. Number	Result	Qual	RL	MDL
Mercury	7439-97-6		U	0.000200	0.000100

U Undetected; the analyte was analyzed for, but not detected.

Sample Number: L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix: Water
 Workgroup Number: WG261061
 Collect Date: 01/14/2008 11:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS4
 Prep Date: 01/16/2008 11:00
 Cal Date: 01/18/2008 13:25
 Run Date: 01/18/2008 19:11
 File ID: 4M40992

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,4-Trichlorobenzene	120-82-1		U	10.8	2.69
1,2-Dichlorobenzene	95-50-1		U	10.8	2.69
1,3-Dichlorobenzene	541-73-1		U	10.8	2.69
1,4-Dichlorobenzene	106-46-7		U	10.8	2.69
2,4-Dinitrotoluene	121-14-2		Q	10.8	2.69
2,6-Dinitrotoluene	606-20-2		Q	10.8	2.69
2-Chloronaphthalene	91-58-7		U	10.8	2.69
2-Methylnaphthalene	91-57-6		U	10.8	2.69
2-Nitroaniline	88-74-4		Q	53.8	13.4
3-Nitroaniline	99-09-2		U	53.8	13.4
3,3'-Dichlorobenzidine	91-94-1		U	21.5	2.69
4-Bromophenyl-phenylether	101-55-3		U	10.8	2.69
4-Chloroaniline	106-47-8		U	21.5	5.38
4-Chlorophenyl-phenyl ether	7005-72-3		U	10.8	2.69
4-Nitroaniline	100-01-6		U	53.8	13.4
Acenaphthylene	208-96-8		UJ	10.8	2.69
Acenaphthene	83-32-9		UJ	10.8	2.69
Anthracene	120-12-7		UJ	10.8	2.69
Benzo(a)anthracene	56-55-3		UJ	10.8	2.69
Benzo(a)pyrene	50-32-8		UJ	10.8	2.69
Benzo(k)fluoranthene	207-08-9		UJ	10.8	2.69

KEMRON ENVIRONMENTAL SERVICES

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Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix: Water
 Workgroup Number: WG261061
 Collect Date: 01/14/2008 11:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS4
 Prep Date: 01/16/2008 11:00
 Cal Date: 01/18/2008 13:25
 Run Date: 01/18/2008 19:11
 File ID: 4M40992

Analyte	CAS. Number	Result	Qual	RL	MDL
Benzo(b) fluoranthene	205-99-2		UJ	10.8	2.69
Benzo(g,h,i) Perylene	191-24-2		UJ	10.8	2.69
Benzyl alcohol	100-51-6		U	10.8	2.69
Bis(2-Chloroethoxy) Methane	111-91-1		U	10.8	2.69
Bis(2-Chloroethyl) ether	111-44-4		U	10.8	2.69
bis(2-Chloroisopropyl) ether	39638-32-9		U	10.8	2.69
bis(2-Ethylhexyl) phthalate	117-81-7		U	10.8	2.69
Butylbenzylphthalate	85-68-7	23.2	Q	10.8	2.69
Chrysene	218-01-9		UJ	10.8	2.69
Di-N-Butylphthalate	84-74-2		U	10.8	2.69
Di-n-octylphthalate	117-84-0		U	10.8	2.69
Dibenzo(a,h) Anthracene	53-70-3		U	10.8	2.69
Dibenzofuran	132-64-9		U	10.8	2.69
Diethylphthalate	84-66-2		U	10.8	2.69
Dimethylphthalate	131-11-3		U	10.8	2.69
Fluoranthene	206-44-0		UJ	10.8	2.69
Fluorene	86-73-7		UJ	10.8	2.69
Hexachlorobenzene	118-74-1		U	10.8	2.69
Hexachlorobutadiene	87-68-3		U	10.8	2.69
Hexachlorocyclopentadiene	77-47-4		U	10.8	2.69
Hexachloroethane	67-72-1		U	10.8	2.69
Indeno(1,2,3-cd) pyrene	193-39-5		UJ	10.8	2.69
Isophorone	78-59-1		U	10.8	2.69
N-Nitrosodiphenylamine	86-30-6		U	10.8	2.69
N-Nitroso-di-n-propylamine	621-64-7		U	10.8	2.69
Naphthalene	91-20-3		UJ	10.8	2.69
Nitrobenzene	98-95-3		U	10.8	2.69
Phenanthrene	85-01-8		UJ	10.8	2.69
Pyrene	129-00-0		UJ	10.8	2.69
2,4,5-Trichlorophenol	95-95-4		U	10.8	2.69
2,4,6-Trichlorophenol	88-06-2		U	10.8	2.69
2,4-Dichlorophenol	120-83-2		U	10.8	2.69
2,4-Dimethylphenol	105-67-9		U	10.8	2.69
2,4-Dinitrophenol	51-28-5		U	53.8	13.4
2-Chlorophenol	95-57-8		U	10.8	2.69
2-Methylphenol	95-48-7		U	10.8	2.69
2-Nitrophenol	88-75-5		U	10.8	2.69
4,6-Dinitro-2-methylphenol	534-52-1		U	53.8	13.4
4-Chloro-3-methylphenol	59-50-7		U	10.8	2.69
3,4-Methylphenol	106-44-5		Q	53.8	2.69
4-Nitrophenol	100-02-7		Q	53.8	13.4
Benzoic acid	65-85-0		U	53.8	13.4
Pentachlorophenol	87-86-5		Q	53.8	13.4
Phenol	108-95-2		U	10.8	2.69

1000519

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix Water
 Workgroup Number: WG261061
 Collect Date: 01/14/2008 11:00
 Sample Tag 01

PrePrep Method: NONE
 Prep Method: 3520C
 Analytical Method: 8270C
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS4
 Prep Date: 01/16/2008 11:00
 Cal Date: 01/18/2008 13:25
 Run Date: 01/18/2008 19:11
 File ID: 4M40992

Surrogate	% Recovery	Lower	Upper	Qual
2-Fluorophenol	84.7	20	120	
Phenol-d5	91.9	20	120	
Nitrobenzene-d5	109	41	120	
2-Fluorobiphenyl	95.6	48	120	
2,4,6-Tribromophenol	112	42	124	
p-Terphenyl-d14	38.4	51	135	*

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

* Surrogate or spike compound out of range

UJ Undetected; the MDL and RL are estimated due to quality control discrepancies.

Sample Number: L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix Water
 Workgroup Number: WG260978
 Collect Date: 01/14/2008 11:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: TMB
 Dilution: 1
 Units: ug/L

Instrument: HPMS10
 Prep Date: 01/18/2008 13:33
 Cal Date: 01/09/2008 18:38
 Run Date: 01/18/2008 13:33
 File ID: 10M61973

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8	1.45		1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200
1,4-Dichlorobenzene	106-46-7		U	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		Q	1.00	0.250
Acetone	67-64-1	5.64	F	10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-21
 Client ID: TA-3-EX-WATER-3
 Matrix: Water
 Workgroup Number: WG260978
 Collect Date: 01/14/2008 11:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: TMB
 Dilution: 1
 Units: ug/L

Instrument: HPMS10
 Prep Date: 01/18/2008 13:33
 Cal Date: 01/09/2008 18:38
 Run Date: 01/18/2008 13:33
 File ID: 10M61973

Analyte	CAS. Number	Result	Qual	RL	MDL
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
MEK (2-Butanone)	78-93-3		Q	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		Q	10.0	2.50
n-Butylbenzene	104-51-8	0.820	F	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-, p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6	0.722	F	1.00	0.250
p-Isopropyltoluene	99-87-6	0.712	F	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl acetate	108-05-4		Q	5.00	2.50
Vinyl chloride	75-01-4		U	1.00	0.250

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	88.7	85	115	
1,2-Dichloroethane-d4	92.6	72	119	
Toluene-d8	96.2	81	120	
4-Bromofluorobenzene	99.0	76	119	

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

F Found; the analyte was positively identified with concentration above MDL but below RL.

1000521
0500001

KEMRON ENVIRONMENTAL SERVICES

Report Number: L08010301

Report Date : January 22, 2008

Sample Number: L08010301-21
Client ID: TA-3-EX-WATER-3
Matrix: Water
Workgroup Number: WG260819
Collect Date: 01/14/2008 11:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: KHR
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 01/16/2008 06:00
Cal Date: 01/16/2008 13:27
Run Date: 01/16/2008 18:16
File ID: P2.011608.181645

Analyte	CAS. Number	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5	9.54		0.100	0.0500
Silver, Total	7440-22-4		U	0.0100	0.00500
Arsenic, Total	7440-38-2	0.0544		0.0100	0.00500
Barium, Total	7440-39-3	0.188		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.0100	0.000500
Calcium, Total	7440-70-2	36.1		0.200	0.100
Cadmium, Total	7440-43-9		U	0.0100	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Chromium, Total	7440-47-3	0.0128	F	0.0200	0.00250
Copper, Total	7440-50-8	0.0146	F	0.0200	0.00500
Iron, Total	7439-89-6	9.08		0.100	0.0250
Potassium, Total	7440-09-7	4.44		1.00	0.250
Magnesium, Total	7439-95-4	4.73		0.500	0.250
Manganese, Total	7439-96-5	0.150		0.0100	0.00500
Sodium, Total	7440-23-5	3.00		0.500	0.250
Nickel, Total	7440-02-0	0.00655	F	0.0400	0.00500
Lead, Total	7439-92-1	0.0225		0.00500	0.00250
Vanadium, Total	7440-62-2	0.0198		0.0100	0.00500
Zinc, Total	7440-66-6	0.0813		0.0200	0.00500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.



DR. WILLIE W. HERENTON - Mayor
KEITH L. MCGEE - Chief Administrative Officer
DIVISION OF PUBLIC WORKS
JERRY R. COLLINS JR. - Director
Maynard C. Stiles Wastewater Treatment Plant

Tuesday, February 05, 2008

Mr. Thomas Holmes
Project Manager
e2M Memphis Field office
2241 Truitt Street
Memphis, TN 38114

RE: Request for disposal of groundwater
Industrial Wastewater Discharge Agreement Permit # S-NN3-097
DES-DDC-EE (Memphis) @ 2163 Airways Blvd., Memphis, Tennessee

Dear Mr. Holmes:

We have received and approve your request to discharge of 2,500 gallons of groundwater from monitoring wells into the sanitary sewer system at the above referenced location. The discharge point is the sewer system through the existing discharge line for the ground water recovery system at the Dunn Field. The discharge flow rate should not exceed 30 gallon per minute.

This approval is for this batch of treated groundwater only.

If you should have any questions, please feel free to contact me at (901) 576-4337.

Sincerely,

Akil AL-Chokhachi
Environmental Engineer



4 February 2008

Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Wastewater Discharge Request
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with the referenced Agreement, engineering-environmental Management, Inc., on behalf of the Defense Logistics Agency, requests permission to discharge wastewater to the City of Memphis Sewer System. The wastewater was collected by the Air/Water Separator as part of ongoing Soil Vapor Extraction (SVE) operations at Defense Depot Memphis, Tennessee (Dunn Field).

A grab sample of the wastewater was collected on 24 January 2008 and submitted to Test America for analysis of metals and volatile and semi-volatile organic compounds in accordance with the Agreement. An analytical results summary with concentration limits from the Agreement and the complete laboratory report are attached. Zinc; 1,1,2,2-tetrachloroethane, and Bis(2-ethylhexyl)Phthalate exceeded the monthly average maximum but not the one day maximum. If approved, the wastewater volume of approximately 2,300 gallons will be discharged to the sewer system through the existing discharge line for the groundwater recovery system at Dunn Field.

If you need additional information, please contact the undersigned at 404-237-3982 or tholmes@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Thomas C. Holmes
Project Manager

cc: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE
Kevin Sedlak, e²M

engineering-environmental Management, Inc.

2451 Cumberland Parkway, Suite 3703, Atlanta, Georgia 30339 (404)799-1046

Sample Identification	FSVE- COND- 012408	City of Memphis Industrial Wastewater Allowable Levels	
		Monthly Average Maximum	One Day Maximum
Date Sample Collected	1/24/08		
Corrosivity	SU	SU	SU
pH	7.1	5.5 to 10	5.5 to 10
TAL Metals⁽¹⁾	mg/L	mg/L	mg/L
Aluminum (total)	ND	1.000	2.000
Arsenic (total)	ND	0.040	0.100
Barium (total)	0.053	NS	NS
Cadmium (total)	ND	0.010	0.020
Calcium (total)	27	NS	NS
Chromium (total)	ND	0.200	0.400
Cobalt (total)	0.0015 F	NS	NS
Copper (total)	ND	0.200	0.400
Iron (total)	1.5	10.000	20.000
Lead (total)	ND	0.150	0.300
Magnesium (total)	10	NS	NS
Manganese (total)	0.68	NS	NS
Mercury (total)	ND	0.001	0.002
Nickel (total)	ND	0.100	0.300
Potassium (total)	2.1	NS	NS
Selenium (total)	0.0077 F	NS	NS
Sodium (total)	11	NS	NS
Zinc (total)	0.680	0.300	1.000
TCL Volatile Organics⁽²⁾	ug/L	ug/L	ug/L
Carbon Tetrachloride	0.55 F	20	40
Chloroform	28	100	200
1,1-dichloroethene	0.17 F	50	100
Cis-1,2-dichloroethene	27	80	100
Trans-1,2-dichloroethene	6.3	50	100
Methylene Chloride	0.31 F	10	20
1,1,2,2-tetrachloroethane	590	500	1000
Tetrachloroethene	0.92 F	60	120
Toluene	ND	20	40
1,1,1-trichloroethane	ND	10	20
1,1,2-trichloroethane	1.6	50	100
Trichloroethene	60	400	800
Vinyl chloride	0.23 F	400	800
TCL Semi-Volatile Organics⁽³⁾	ug/L	ug/L	ug/L
Bis (2-ethylhexyl) Phthalate	11	10	20
Di-n-butyl Phthalate	ND	30	60
Naphthalene	ND	10	20
Phenol	ND	10	20

Notes

(1) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A) and Arsenic, Antimony, Thallium and Selenium (EPA Method 6020)

(2) TCL Volatile Organic analyses performed by EPA Method 8260B

(3) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

NS = No standard listed in the Industrial Wastewater Discharge Permit

ND = Analyte not detected; Reporting Limit shown

F = Found, the analyte was positively identified with concentration above MDL but below the reporting limit

B = Analyte found in a blank sample



ANALYTICAL REPORT

Memphis Depot - Fluvial SVE

Project#: 3202-031-01-04

PO#:

Lot #: D8A250161

Dr. Lance Hines

**e2M
184 Creekside Park
STE 100
Spring Branch, TX 78070**

TestAmerica, Inc.

A handwritten signature in black ink, appearing to read "Andrew Wemmer".

**Andrew Wemmer
Project Manager**

February 1, 2008

This report shall not be reproduced except in full, without the written approval of the laboratory

TestAmerica, Inc

Volatile GC/MS

CLP-Like Forms

Lot ID: D8A250161

Client: e2M

Method: SW846 8260B

Associated Samples: 001-002

Batch: 8032179

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Analysis Data Sheet

Lab Name: TESTAMERICA DENVERLot/SDG Number: D8A250161Matrix: WATER% Moisture: N/ABasis: WetAnalysis Method: 8260BUnit: ug/LQC Batch ID: 8032179Sample Aliquot: 20 mLDilution Factor: 1Client Sample ID: FSVE-COND-012408Lab Sample ID: D8A250161-001Lab WorkOrder: KE4V51A5Date/Time Collected: 01/24/08 09:30Date/Time Received: 01/25/08 08:45

Date Leached:

Date/Time Extracted: 02/01/08 06:58Date/Time Analyzed: 02/01/08 09:48Instrument ID: HExtraction Method: 5030B/8260B

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
630-20-6	1,1,1,2-Tetrachloroethane	Jason Reinhardt	JR	0.14	0.14	0.50	U
71-55-6	1,1,1-Trichloroethane	Jason Reinhardt	JR	0.053	0.053	1.0	U
79-00-5	1,1,2-Trichloroethane	Jason Reinhardt	JR	1.6	0.13	1.0	
75-34-3	1,1-Dichloroethane	Jason Reinhardt	JR	0.057	0.057	1.0	U
75-35-4	1,1-Dichloroethene	Jason Reinhardt	JR	0.17	0.074	1.0	F
563-58-6	1,1-Dichloropropene	Jason Reinhardt	JR	0.080	0.080	1.0	U
87-61-6	1,2,3-Trichlorobenzene	Jason Reinhardt	JR	0.16	0.16	1.0	U
96-18-4	1,2,3-Trichloropropane	Jason Reinhardt	JR	0.27	0.27	1.0	U
120-82-1	1,2,4-Trichlorobenzene	Jason Reinhardt	JR	0.14	0.14	1.0	U
95-63-6	1,2,4-Trimethylbenzene	Jason Reinhardt	JR	0.081	0.081	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	Jason Reinhardt	JR	0.71	0.71	2.0	U
106-93-4	1,2-Dibromoethane (EDB)	Jason Reinhardt	JR	0.18	0.18	1.0	U
95-50-1	1,2-Dichlorobenzene	Jason Reinhardt	JR	0.11	0.11	1.0	U
107-06-2	1,2-Dichloroethane	Jason Reinhardt	JR	0.068	0.068	0.50	U
78-87-5	1,2-Dichloropropane	Jason Reinhardt	JR	0.078	0.078	1.0	U
108-67-8	1,3,5-Trimethylbenzene	Jason Reinhardt	JR	0.083	0.083	1.0	U
541-73-1	1,3-Dichlorobenzene	Jason Reinhardt	JR	0.14	0.14	1.0	U
142-28-9	1,3-Dichloropropane	Jason Reinhardt	JR	0.077	0.077	0.40	U
106-46-7	1,4-Dichlorobenzene	Jason Reinhardt	JR	0.12	0.12	0.50	U
544-10-5	1-Chlorohexane	Jason Reinhardt	JR	0.11	0.11	1.0	U
594-20-7	2,2-Dichloropropane	Jason Reinhardt	JR	0.18	0.18	1.0	U
78-93-3	2-Butanone (MEK)	Jason Reinhardt	JR	1.2	1.2	10	U
95-49-8	2-Chlorotoluene	Jason Reinhardt	JR	0.088	0.088	1.0	U
106-43-4	4-Chlorotoluene	Jason Reinhardt	JR	0.083	0.083	1.0	U
67-64-1	Acetone	Jason Reinhardt	JR	1.6	1.6	10	U
71-43-2	Benzene	Jason Reinhardt	JR	0.13	0.13	0.40	U
108-86-1	Bromobenzene	Jason Reinhardt	JR	0.066	0.066	1.0	U
74-97-5	Bromochloromethane	Jason Reinhardt	JR	0.21	0.21	1.0	U
75-27-4	Bromodichloromethane	Jason Reinhardt	JR	0.21	0.21	0.50	U

Form 1 Analysis Data Sheet Equivalent

1000528

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
 Lot/SDG Number: D8A250161
 Matrix: WATER
 % Moisture: N/A
 Basis: Wet
 Analysis Method: 8260B
 Unit: ug/L
 QC Batch ID: 8032179
 Sample Aliquot: 20 mL
 Dilution Factor: 1

Client Sample ID: FSVE-COND-012408
 Lab Sample ID: D8A250161-001
 Lab WorkOrder: KF4V51A5
 Date/Time Collected: 01/24/08 09:30
 Date/Time Received: 01/25/08 08:45
 Date Leached:
 Date/Time Extracted: 02/01/08 06:58
 Date/Time Analyzed: 02/01/08 09:48
 Instrument ID: H
 Extraction Method: 5030B/8260B

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
75-25-2	Bromoform	Jason Reinhardt	JR	0.22	0.22	1.0	U
74-83-9	Bromomethane	Jason Reinhardt	JR	0.19	0.19	3.0	U
56-23-5	Carbon tetrachloride	Jason Reinhardt	JR	0.55	0.11	1.0	F
108-90-7	Chlorobenzene	Jason Reinhardt	JR	0.076	0.076	0.50	U
75-00-3	Chloroethane	Jason Reinhardt	JR	0.13	0.13	1.0	U
67-66-3	Chloroform	Jason Reinhardt	JR	28	0.052	0.30	
74-87-3	Chloromethane	Jason Reinhardt	JR	0.083	0.083	1.0	U
156-59-2	cis-1,2-Dichloroethene	Jason Reinhardt	JR	27	0.098	1.0	
10061-01-5	cis-1,3-Dichloropropene	Jason Reinhardt	JR	0.078	0.078	0.50	U
124-48-1	Dibromochloromethane	Jason Reinhardt	JR	0.046	0.046	0.50	U
74-95-3	Dibromomethane	Jason Reinhardt	JR	0.17	0.17	1.0	U
75-71-8	Dichlorodifluoromethane	Jason Reinhardt	JR	0.049	0.049	1.0	U
100-41-4	Ethylbenzene	Jason Reinhardt	JR	0.099	0.099	1.0	U
87-68-3	Hexachlorobutadiene	Jason Reinhardt	JR	0.16	0.16	0.60	U
98-82-8	Isopropylbenzene	Jason Reinhardt	JR	0.12	0.12	1.0	U
108-10-1	Methyl isobutyl ketone (MIBK)	Jason Reinhardt	JR	1.1	1.1	10	U
1634-04-4	Methyl tert-butyl ether	Jason Reinhardt	JR	0.18	0.18	5.0	U
75-09-2	Methylene chloride	Jason Reinhardt	JR	0.31	0.21	2.0	F
136777-61-2	m-Xylene & p-Xylene	Jason Reinhardt	JR	0.10	0.10	2.0	U
91-20-3	Naphthalene	Jason Reinhardt	JR	0.25	0.25	1.0	U
104-51-8	n-Butylbenzene	Jason Reinhardt	JR	0.12	0.12	1.0	U
103-65-1	n-Propylbenzene	Jason Reinhardt	JR	0.13	0.13	1.0	U
95-47-6	o-Xylene	Jason Reinhardt	JR	0.087	0.087	1.0	U
99-87-6	p-Isopropyltoluene	Jason Reinhardt	JR	0.10	0.10	1.0	U
135-98-8	sec-Butylbenzene	Jason Reinhardt	JR	0.18	0.18	1.0	U
100-42-5	Styrene	Jason Reinhardt	JR	0.066	0.066	1.0	U
98-06-6	tert-Butylbenzene	Jason Reinhardt	JR	0.099	0.099	1.0	U
127-18-4	Tetrachloroethene	Jason Reinhardt	JR	0.92	0.14	1.0	F
108-88-3	Toluene	Jason Reinhardt	JR	0.068	0.068	1.0	U

Form 1 Analysis Data Sheet Equivalent

TestAmerica

... ..

THE LEADER IN ENVIRONMENTAL TESTING
e2M Engineering-Environmental Mngmt Inc

Memphis Depot

35000 Analysis Data Sheet

Lab Name: TESTAMERICA DENVER

Lot/SDG Number: D8A250161

Matrix: WATER

% Moisture: N/A

Basis: Wet

Analysis Method: 8260B

Unit: ug/L

OC Batch ID: 8032179

Sample Aliquot: 20 mL

Dilution Factor: 1

Client Sample ID: FSVE-COND-012408

Lab Sample ID: D8A250161-001

Lab WorkOrder: KF4V51A5

Date/Time Collected: 01/24/08 09:30

Date/Time Received: 01/25/08 08:45

Date Leached:

Date/Time Extracted: 02/01/08 06:58

Date/Time Analyzed: 02/01/08 09:48

Instrument ID: H

Extraction Method: 5030B/8260B

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
156-60-5	trans-1,2-Dichloroethene	Jason Reinhardt	JR	6.3	0.056	1.0	
10061-02-6	trans-1,3-Dichloropropene	Jason Reinhardt	JR	0.065	0.065	1.0	U
79-01-6	Trichloroethene	Jason Reinhardt	JR	60	0.10	1.0	
75-69-4	Trichlorofluoromethane	Jason Reinhardt	JR	0.067	0.067	1.0	U
75-01-4	Vinyl chloride	Jason Reinhardt	JR	0.23	0.078	1.0	F

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
17060-07-0	1,2-Dichloroethane-d4	83	72	119	
2037-26-5	Toluene-d8	87	81	120	
1868-53-7	Dibromofluoromethane	98	85	115	
460-00-4	4-Bromofluorobenzene	94	76	119	

0000010000530

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Analysis Data Sheet

Lab Name: TESTAMERICA DENVERLot/SDG Number: D8A250161Matrix: WATER% Moisture: N/ABasis: WetAnalysis Method: 8260BUnit: ug/LQC Batch ID: 8032179Sample Aliquot: 1 mLDilution Factor: 20Client Sample ID: FSVE-COND-012408Lab Sample ID: D8A250161-001Lab WorkOrder: KF4V52A5Date/Time Collected: 01/24/08 09:30Date/Time Received: 01/25/08 08:45

Date Leached:

Date/Time Extracted: 02/01/08 06:58Date/Time Analyzed: 02/01/08 10:30Instrument ID: HExtraction Method: 5030B/8260B

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	Jason Reinhardt	JR	590	3.0	10	

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
17060-07-0	1,2-Dichloroethane-d4	79	72	119	
2037-26-5	Toluene-d8	91	81	120	
1868-53-7	Dibromofluoromethane	95	85	115	
460-00-4	4-Bromofluorobenzene	95	76	119	

Form 1 Analysis Data Sheet Equivalent

636000

TestAmerica, Inc

Semivolatile GC/MS

CLP-Like Forms

Lot ID: D8A250161

Client: e2M

Method: SW846 8270C

Associated Samples: 001

Batch: 8025170

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Analysis Data Sheet

Lab Name: TESTAMERICA DENVERLot/SDG Number: D8A250161Matrix: WATER% Moisture: N/ABasis: WetAnalysis Method: 8270CUnit: ug/LQC Batch ID: 8025170Sample Aliquot: 899 mLDilution Factor: 1.11Client Sample ID: FSVE-COND-012408Lab Sample ID: D8A250161-001Lab WorkOrder: KF4V51A6Date/Time Collected: 01/24/08 09:30Date/Time Received: 01/25/08 08:45

Date Leached:

Date/Time Extracted: 01/25/08 12:00Date/Time Analyzed: 01/29/08 13:27Instrument ID: KExtraction Method: 3520C

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
120-82-1	1,2,4-Trichlorobenzene	Daniel Kiekel	DK	0.50	0.50	11	U
95-50-1	1,2-Dichlorobenzene	Daniel Kiekel	DK	0.31	0.31	11	U
541-73-1	1,3-Dichlorobenzene	Daniel Kiekel	DK	0.32	0.32	11	U
106-46-7	1,4-Dichlorobenzene	Daniel Kiekel	DK	0.33	0.33	11	U
95-95-4	2,4,5-Trichlorophenol	Daniel Kiekel	DK	0.43	0.43	56	U
88-06-2	2,4,6-Trichlorophenol	Daniel Kiekel	DK	0.41	0.41	11	U
120-83-2	2,4-Dichlorophenol	Daniel Kiekel	DK	1.4	1.4	11	U
105-67-9	2,4-Dimethylphenol	Daniel Kiekel	DK	0.63	0.63	11	U
51-28-5	2,4-Dinitrophenol	Daniel Kiekel	DK	22	22	56	U
121-14-2	2,4-Dinitrotoluene	Daniel Kiekel	DK	0.28	0.28	11	U
606-20-2	2,6-Dinitrotoluene	Daniel Kiekel	DK	0.26	0.26	11	U
91-58-7	2-Chloronaphthalene	Daniel Kiekel	DK	0.34	0.34	11	U
95-57-8	2-Chlorophenol	Daniel Kiekel	DK	0.42	0.42	11	U
91-57-6	2-Methylnaphthalene	Daniel Kiekel	DK	0.32	0.32	11	U
95-48-7	2-Methylphenol	Daniel Kiekel	DK	1.1	1.1	11	U
88-74-4	2-Nitroaniline	Daniel Kiekel	DK	0.36	0.36	56	U
88-75-5	2-Nitrophenol	Daniel Kiekel	DK	2.2	2.2	11	U
91-94-1	3,3'-Dichlorobenzidine	Daniel Kiekel	DK	2.2	2.2	22	U
99-09-2	3-Nitroaniline	Daniel Kiekel	DK	2.2	2.2	56	U
534-52-1	4,6-Dinitro-2-methylphenol	Daniel Kiekel	DK	0.39	0.39	56	U
101-55-3	4-Bromophenyl phenyl ether	Daniel Kiekel	DK	0.48	0.48	11	U
59-50-7	4-Chloro-3-methylphenol	Daniel Kiekel	DK	2.2	2.2	22	U
106-47-8	4-Chloroaniline	Daniel Kiekel	DK	2.2	2.2	22	U
7005-72-3	4-Chlorophenyl phenyl ether	Daniel Kiekel	DK	0.72	0.72	11	U
106-44-5	4-Methylphenol	Daniel Kiekel	DK	0.82	0.82	56	U
100-01-6	4-Nitroaniline	Daniel Kiekel	DK	1.1	1.1	56	U
100-02-7	4-Nitrophenol	Daniel Kiekel	DK	1.9	1.9	56	U
83-32-9	Acenaphthene	Daniel Kiekel	DK	0.31	0.31	11	U
208-96-8	Acenaphthylene	Daniel Kiekel	DK	0.54	0.54	11	U

Form 1 Analysis Data Sheet Equivalent

3000001
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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
 Lot/SDG Number: D8A250161
 Matrix: WATER
 % Moisture: N/A
 Basis: Wet
 Analysis Method: 8270C
 Unit: ug/L
 QC Batch ID: 8025170
 Sample Aliquot: 899 mL
 Dilution Factor: 1.11

Client Sample ID: FSVE-COND-012408
 Lab Sample ID: D8A250161-001
 Lab WorkOrder: KF4V51A6
 Date/Time Collected: 01/24/08 09:30
 Date/Time Received: 01/25/08 08:45
 Date Leached:
 Date/Time Extracted: 01/25/08 12:00
 Date/Time Analyzed: 01/29/08 13:27
 Instrument ID: K
 Extraction Method: 3520C

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
120-12-7	Anthracene	Daniel Kiekel	DK	0.47	0.47	11	U
56-55-3	Benzo(a)anthracene	Daniel Kiekel	DK	0.39	0.39	11	U
50-32-8	Benzo(a)pyrene	Daniel Kiekel	DK	0.82	0.82	11	U
205-99-2	Benzo(b)fluoranthene	Daniel Kiekel	DK	0.43	0.43	11	U
191-24-2	Benzo(ghi)perylene	Daniel Kiekel	DK	0.56	0.56	11	U
207-08-9	Benzo(k)fluoranthene	Daniel Kiekel	DK	0.51	0.51	11	U
65-85-0	Benzoic acid	Daniel Kiekel	DK	22	22	110	U
100-51-6	Benzyl alcohol	Daniel Kiekel	DK	0.50	0.50	22	U
111-91-1	bis(2-Chloroethoxy)methane	Daniel Kiekel	DK	0.36	0.36	11	U
111-44-4	bis(2-Chloroethyl) ether	Daniel Kiekel	DK	0.46	0.46	11	U
108-60-1	bis(2-Chloroisopropyl) ether	Daniel Kiekel	DK	0.48	0.48	11	U
117-81-7	bis(2-Ethylhexyl) phthalate	Daniel Kiekel	DK	11	0.62	11	
85-68-7	Butyl benzyl phthalate	Daniel Kiekel	DK	1.1	1.1	11	U
218-01-9	Chrysene	Daniel Kiekel	DK	0.60	0.60	11	U
53-70-3	Dibenz(a,h)anthracene	Daniel Kiekel	DK	0.57	0.57	11	U
132-64-9	Dibenzofuran	Daniel Kiekel	DK	0.32	0.32	11	U
84-66-2	Diethyl phthalate	Daniel Kiekel	DK	0.42	0.42	11	U
131-11-3	Dimethyl phthalate	Daniel Kiekel	DK	1.1	1.1	11	U
84-74-2	Di-n-butyl phthalate	Daniel Kiekel	DK	1.3	1.3	11	U
117-84-0	Di-n-octyl phthalate	Daniel Kiekel	DK	0.39	0.39	11	U
206-44-0	Fluoranthene	Daniel Kiekel	DK	0.22	0.22	11	U
86-73-7	Fluorene	Daniel Kiekel	DK	0.34	0.34	11	U
118-74-1	Hexachlorobenzene	Daniel Kiekel	DK	0.73	0.73	11	U
87-68-3	Hexachlorobutadiene	Daniel Kiekel	DK	0.57	0.57	11	U
67-72-1	Hexachloroethane	Daniel Kiekel	DK	0.51	0.51	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	Daniel Kiekel	DK	0.72	0.72	11	U
78-59-1	Isophorone	Daniel Kiekel	DK	0.23	0.23	11	U
91-20-3	Naphthalene	Daniel Kiekel	DK	0.32	0.32	11	U
98-95-3	Nitrobenzene	Daniel Kiekel	DK	0.90	0.90	11	U

Form 1 Analysis Data Sheet Equivalent

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000001

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Analysis Data Sheet

Lab Name: TESTAMERICA DENVERLot/SDG Number: D8A250161Matrix: WATER% Moisture: N/ABasis: WetAnalysis Method: 8270CUnit: ug/LQC Batch ID: 8025170Sample Aliquot: 899 mLDilution Factor: 1.11Client Sample ID: FSVE-COND-012408Lab Sample ID: D8A250161-001Lab WorkOrder: KF4V51A6Date/Time Collected: 01/24/08 09:30Date/Time Received: 01/25/08 08:45

Date Leached:

Date/Time Extracted: 01/25/08 12:00Date/Time Analyzed: 01/29/08 13:27Instrument ID: KExtraction Method: 3520C

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
621-64-7	N-Nitrosodi-n-propylamine	Daniel Kiekel	DK	0.39	0.39	11	U
86-30-6	N-Nitrosodiphenylamine	Daniel Kiekel	DK	0.49	0.49	11	U
87-86-5	Pentachlorophenol	Daniel Kiekel	DK	22	22	56	U
85-01-8	Phenanthrene	Daniel Kiekel	DK	0.29	0.29	11	U
108-95-2	Phenol	Daniel Kiekel	DK	0.34	0.34	11	U
129-00-0	Pyrene	Daniel Kiekel	DK	0.41	0.41	11	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
321-60-8	2-Fluorobiphenyl	76	48	120	
367-12-4	2-Fluorophenol	79	20	120	
118-79-6	2,4,6-Tribromophenol	83	42	124	
4165-60-0	Nitrobenzene-d5	81	41	120	
4165-62-2	Phenol-d5	84	20	120	
1718-51-0	Terphenyl-d14	95	51	135	

TestAmerica, Inc.

Total Metals

CLP-Like Forms

Lot ID: D8A250161

Client: e2M

Method: SW846 6010B / 7470A

Associated Samples: 001

Batch: 8025436, 8028174

1000536

TestAmerica

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGEContract: e2M Engineering - Environmental Mngmt IncSDG No.: D8A250161Lab Code: TALDEN

Case No.: _____

SAS No.: _____

SOW No.: _____

Sample ID.Lab Sample No.FSVE-COND-012408D8A250161-001

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YESIf yes-were raw data generated before
application of background corrections?Yes/No NOComments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice CollinsName: Janice CollinsDate: 2/1/08Title: Metals Analyst

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
 Lot/SDG Number: D8A250161
 Matrix: WATER
 % Moisture: N/A
 Basis: Wet
 Analysis Method: 6010B
 Unit: mg/L
 QC Batch ID: 8025436
 Sample Aliquot: 50 mL
 Dilution Factor: 1

Client Sample ID: FSVE-COND-012408
 Lab Sample ID: D8A250161-001
 Lab WorkOrder: KF4V5
 Date/Time Collected: 01/24/08 09:30
 Date/Time Received: 01/25/08 08:45
 Date Leached:
 Date/Time Extracted: 01/28/08 08:30
 Date/Time Analyzed: 01/29/08 13:16
 Instrument ID: 025
 Extraction Method: 3010A

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
7429-90-5	Aluminum	Lynn-Anne Trudell	LT	0.018	0.018	0.20	U
7440-38-2	Arsenic	Lynn-Anne Trudell	LT	0.0044	0.0044	0.030	U
7440-39-3	Barium	Lynn-Anne Trudell	LT	0.053	0.0010	0.050	
7440-41-7	Beryllium	Lynn-Anne Trudell	LT	0.00047	0.00047	0.0010	U
7440-43-9	Cadmium	Lynn-Anne Trudell	LT	0.00045	0.00045	0.0050	U
7440-70-2	Calcium	Lynn-Anne Trudell	LT	27	0.034	1.1	
7440-47-3	Chromium	Lynn-Anne Trudell	LT	0.0026	0.0026	0.010	U
7440-48-4	Cobalt	Lynn-Anne Trudell	LT	0.0015	0.0012	0.060	F
7440-50-8	Copper	Lynn-Anne Trudell	LT	0.0045	0.0045	0.010	U
7439-92-1	Lead	Lynn-Anne Trudell	LT	0.0026	0.0026	0.025	U
7439-95-4	Magnesium	Lynn-Anne Trudell	LT	10	0.043	1.0	
7439-96-5	Manganese	Lynn-Anne Trudell	LT	0.68	0.0018	0.010	
7439-98-7	Molybdenum	Lynn-Anne Trudell	LT	0.0053	0.0053	0.015	U
7440-02-0	Nickel	Lynn-Anne Trudell	LT	0.0078	0.0078	0.020	U
7440-09-7	Potassium	Lynn-Anne Trudell	LT	2.1	0.24	1.0	
7440-22-4	Silver	Lynn-Anne Trudell	LT	0.0028	0.0028	0.010	U
7440-23-5	Sodium	Lynn-Anne Trudell	LT	11	0.092	1.0	
7440-28-0	Thallium	Lynn-Anne Trudell	LT	0.0049	0.0049	0.080	U
7440-62-2	Vanadium	Lynn-Anne Trudell	LT	0.0025	0.0025	0.010	U
7440-66-6	Zinc	Lynn-Anne Trudell	LT	0.68	0.0045	0.020	

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
 Lot/SDG Number: D8A250161
 Matrix: WATER
 % Moisture: N/A
 Basis: Wet
 Analysis Method: 6010B
 Unit: mg/L
 QC Batch ID: 8025436
 Sample Aliquot: 50 mL
 Dilution Factor: 1

Client Sample ID: FSVE-COND-012408
 Lab Sample ID: D8A250161-001
 Lab WorkOrder: KF4V5
 Date/Time Collected: 01/24/08 09:30
 Date/Time Received: 01/25/08 08:45
 Date Leached:
 Date/Time Extracted: 01/28/08 08:30
 Date/Time Analyzed: 01/30/08 07:26
 Instrument ID: 025
 Extraction Method: 3010A

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
7439-89-6	Iron	Lynn-Anne Trudell	LT	1.5	0.022	0.20	
7782-49-2	Selenium	Lynn-Anne Trudell	LT	0.0077	0.0049	0.030	F

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER

Client Sample ID: FSVE-COND-012408

Lot/SDG Number: D8A250161

Lab Sample ID: D8A250161-001

Matrix: WATER

Lab WorkOrder: KF4V5

% Moisture: N/A

Date/Time Collected: 01/24/08 09:30

Basis: Wet

Date/Time Received: 01/25/08 08:45

Analysis Method: 6010B

Date Leached:

Unit: mg/L

Date/Time Extracted: 01/28/08 08:30

QC Batch ID: 8025436

Date/Time Analyzed: 01/31/08 10:47

Sample Aliquot: 50 mL

Instrument ID: 025

Dilution Factor: 1

Extraction Method: 3010A

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
7440-36-0	Antimony	Lynn-Anne Trudell	LT	0.0031	0.0031	0.050	U

CC 1000540

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

e2M Engineering-Environmental Mngmt Inc

Memphis Depot

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVERLot/SDG Number: D8A250161Matrix: WATER% Moisture: N/ABasis: WetAnalysis Method: 7470AUnit: mg/LQC Batch ID: 8028174Sample Aliquot: 10 mLDilution Factor: 1Client Sample ID: FSVE-COND-012408Lab Sample ID: D8A250161-001Lab WorkOrder: KF4V5Date/Time Collected: 01/24/08 09:30Date/Time Received: 01/25/08 08:45

Date Leached:

Date/Time Extracted: 01/28/08 17:50Date/Time Analyzed: 01/29/08 15:15Instrument ID: 019Extraction Method: 7470A

CAS No.	Analyte	Analyst Name	Initials	Conc.	MDL	RL	Q
7439-97-6	Mercury	Christopher Grisdale	CG	0.000027	0.000027	0.0010	U

TestAmerica, Inc.

General Chemistry
CLP-Like Forms

Lot ID: D8A250161

Client: e2M

Method: 9040B

Associated Samples: 001

Batch: 8026128

1000542

e2M Engineering-Environmental Mngmt Inc

Client Sample ID: FSVE-COND-012408

General Chemistry

Lot-Sample #....: D8A250161-001 Work Order #....: KF4V5 Matrix.....: WATER
Date Sampled....: 01/24/08 09:30 Date Received...: 01/25/08

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	7.1	0.10	No Units	SW846 9040B	01/25/08	8026128
		Dilution Factor: 1		Analysis Time..: 16:10	MDL.....:	



May 6, 2009

Mr. Akil AL-Chokhachi
City of Memphis
2303 North Second Avenue
Memphis, Tennessee 38127-7500

Reference: Wastewater Discharge Request – Fluvial SVE Condensate
Industrial Wastewater Discharge Agreement S-NN3-097
Defense Depot Memphis, Tennessee

Dear Mr. AL-Chokhachi:

In accordance with Section F – Self-Monitoring Schedule of the referenced Agreement, engineering-environmental Management, Inc. (e²M), on behalf of the Defense Logistics Agency, requests permission to discharge wastewater to the City of Memphis Sewer System. The wastewater was collected by the air/water separator for the Fluvial Soil Vapor Extraction (FSVE) system at Defense Depot Memphis, Tennessee (Dunn Field).

A grab sample of the condensate was collected from the holding tank on 27 April 2009. The sample was submitted to Microbac Laboratories, Inc., in Marietta, Ohio for analysis of metals, volatile and semi-volatile organic compounds, and pH in accordance with the Agreement. The analytical results are compared to the concentration limits from the Agreement on the attached table; the laboratory report is also attached. Manganese exceeded the monthly average and one day maximum permit limits; sodium exceeded the monthly average but not the one day maximum. All other constituents were below the monthly average maximum permit limit. If approved, the wastewater volume of approximately 20,000 gallons will be discharged to the sewer system through the existing discharge line for the groundwater recovery system at Dunn Field.

If you need additional information, please contact the undersigned at (916) 852-7792 or steven.herrera@e2m.net. Correspondence can also be sent to e²M's Memphis field office at 2241 Truitt St., Memphis, TN 38114.

Sincerely,
engineering-environmental Management, Inc.

Steven Herrera, P.E.
FSVE Task Manager

cc: Michael A. Dobbs, DES-DDC-EE
Brian Renaghan, AFCEE/EXA
Thomas Holmes, e²M, Inc.

engineering-environmental Management, Inc.

11171 Sun Center Drive, Suite 210, Rancho Cordova, CA 95670 • (916) 852-7792 • Fax (916) 852-7836

1000544

Summary of Analytical Results
Fluvial Soil Vapor Extraction Condensate Discharge
Defense Depot Memphis, Tennessee
FA8903-04D-8722-0031
e²M Project 3202-031

Sample Identification Date Sample Collected	City of Memphis Industrial Permit Discharge Limits		
	FSVE-CW-42709 4/27/2009	Monthly Average Maximum	One Day Maximum
<u>pH⁽¹⁾</u>			
pH	6.88	5.5 to 10.0	5.5 to 10.0
<u>Total Metals⁽²⁾</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>
Aluminum	ND	5000	10000
Antimony	ND	6	12
Arsenic	ND	40	100
Barium	77.9	2000	4000
Cadmium	ND	10	20
Calcium	8180	40000	80000
Chromium	ND	200	400
Copper	287	600	1200
Iron	3600	15000	30000
Lead	ND	150	300
Magnesium	3260	20000	40000
Manganese	379	50	100
Mercury	0.106 F	1	2
Nickel	10.6 F	100	300
Potassium	964 F	2000	4000
Selenium	ND	50	100
Sodium	55100	40000	80000
Thallium	ND	2	4
Zinc	86.1	300	1000
<u>Volatile Organic Compounds⁽³⁾</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>
1,1,2,2-Tetrachloroethane	5.06	500	1000
1,1,1-Trichloroethane	ND	10	20
1,1,2-Trichloroethane	ND	50	100
1,1-Dichloroethane	ND	10	20
1,1-Dichloroethene	ND	50	100
Acetone	239	2000	4000
Carbon tetrachloride	ND	20	40
Chloroform	3.61	100	200
Chloromethane	ND	10	20
cis-1,2-Dichloroethene	0.568 F	80	100
Methylene chloride	ND	10	20
MEK (2- Butanone)	59.4	NS	NS
Tetrachloroethene	ND	60	120
Toluene	ND	20	40
trans-1,2-Dichloroethene	ND	50	100
Trichloroethene	1.18	400	800
<u>Semi-volatile Organic Compounds⁽⁴⁾</u>	<u>ug/L</u>	<u>ug/L</u>	<u>ug/L</u>
Benzoic Acid	22.7 F	NS	NS
Bis (2-ethylhexyl) Phthalate	ND	35	70
Di-n-butyl Phthalate	ND	30	60
Fluoranthene	ND	10	20
Naphthalene	ND	10	20
Phenanthrene	ND	10	20
Phenol	ND	10	20
Pyrene	ND	10	20

Notes:

(1) pH analyses performed by EPA Method 9040C

(2) Target Analyte List (TAL) Metals analyses performed by EPA Method 6010B except for Mercury (EPA Method 7470A) and Antimony, Arsenic, Selenium, and Thallium (EPA Method 6020)

(3) TCL Volatile Organic analyses performed by EPA Method 8260B

(4) TCL Semi-Volatile Organic Analyses performed by EPA Method 8270C

F Estimated quantitation: result below the reporting limit or estimated based on the QC data

ND Not detected above the reporting limit

NS No standard

LABORATORY REPORT

L09040666

05/01/09 16:06

Submitted By

Microbac Laboratories Inc.

158 Starlite Drive

Marietta, OH 45750

740-373-4071

For

Account Name: Engineering-Environmental Management
627 Spacious Sky

San Antonio, TX 78260

Attention: Lance Hines

Project Number: 2886.001

Project: DEFENSE DEPOT

Site: DEFENSE DEPOT MEMPHIS TN

Sample Summary

Client ID	Lab ID	Date Collected	Date Received
FSVE-CW-42709	L09040666-01	04/27/2009 08:00	04/28/2009
TB-42709	L09040666-02	04/27/2009	04/28/2009

1000546

Microbac Laboratories Inc.

Report Number: L09040666
Report Date: May 1, 2009

Sample Number: L09040666-01
Client ID: FSVE-CW-42709
Matrix: Water
Workgroup Number: WG301019
Collect Date: 04/27/2009 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 7470A
Analytical Method: 7470A
Analyst: SLP
Dilution: 1
Units: mg/L

Instrument: HYDRA
Prep Date: 04/28/2009 15:06
Cal Date: 04/29/2009 10:50
Run Date: 04/29/2009 11:32
File ID: HY.042909.113217

Analyte	CAS. Number	Result	Qual	RL	MDL
Mercury	7439-97-6	0.000106	F	0.000200	0.000100

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L09040666-01
Client ID: FSVE-CW-42709
Matrix: Water
Workgroup Number: WG301068
Collect Date: 04/27/2009 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3005A
Analytical Method: 6010B
Analyst: PDM
Dilution: 1
Units: mg/L

Instrument: PE-ICP2
Prep Date: 04/29/2009 06:03
Cal Date: 04/29/2009 11:43
Run Date: 04/29/2009 17:24
File ID: P2.042909.172452

Analyte	CAS. Number	Result	Qual	RL	MDL
Aluminum, Total	7429-90-5		U	0.100	0.0500
Barium, Total	7440-39-3	0.0779		0.0100	0.00250
Beryllium, Total	7440-41-7		U	0.0100	0.000500
Cadmium, Total	7440-43-9		U	0.0100	0.00250
Calcium, Total	7440-70-2	8.81		0.200	0.100
Chromium, Total	7440-47-3		U	0.0200	0.00250
Cobalt, Total	7440-48-4		U	0.0200	0.00250
Copper, Total	7440-50-8	0.287		0.0200	0.00500
Iron, Total	7439-89-6	3.60		0.100	0.0250
Lead, Total	7439-92-1		U	0.00500	0.00250
Magnesium, Total	7439-95-4	3.26		0.500	0.250
Manganese, Total	7439-96-5	0.379		0.0100	0.00500
Nickel, Total	7440-02-0	0.0106	F	0.0400	0.00500
Potassium, Total	7440-09-7	0.964	F	1.00	0.250
Silver, Total	7440-22-4		U	0.0100	0.00500
Sodium, Total	7440-23-5	55.1		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6	0.0861		0.0200	0.00500

U Undetected; the analyte was analyzed for, but not detected.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L09040666-01
Client ID: FSVE-CW-42709
Matrix: Water
Workgroup Number: WG301052
Collect Date: 04/27/2009 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3015
Analytical Method: 6020
Analyst: JYH
Dilution: 1
Units: mg/L

Instrument: ELAN-ICP
Prep Date: 04/29/2009 11:29
Cal Date: 04/29/2009 10:32
Run Date: 04/29/2009 19:29
File ID: EL.042909.192903

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	0.00100	0.000250
Antimony, Total	7440-36-0		U	0.00100	0.000250
Selenium, Total	7782-49-2		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.0000500

U Undetected; the analyte was analyzed for, but not detected.

Report Number: L09040666

Report Date : May 1, 2009

Sample Number: L09040666-01

Client ID: FSVE-CW-42709

Matrix: Water

Workgroup Number: WG301150

Collect Date: 04/27/2009 08:00

Sample Tag: 01

PrePrep Method: NONE

Prep Method: 3510C

Analytical Method: 8270C

Analyst: CAA

Dilution: 1

Units: ug/L

Instrument: HPMS4

Prep Date: 04/28/2009 08:00

Cal Date: 04/16/2009 15:02

Run Date: 04/29/2009 12:11

File ID: 4M46686

Analyte	CAS. Number	Result	Qual	RL	MDL
1,2,4-Trichlorobenzene	120-82-1		U	11.7	2.92
1,2-Dichlorobenzene	95-50-1		U	11.7	2.92
1,3-Dichlorobenzene	541-73-1		U	11.7	2.92
1,4-Dichlorobenzene	106-46-7		U	11.7	2.92
2,4-Dinitrotoluene	121-14-2		Q	11.7	2.92
2,6-Dinitrotoluene	606-20-2		U	11.7	2.92
2-Chloronaphthalene	91-58-7		U	11.7	2.92
2-Methylnaphthalene	91-57-6		U	11.7	2.92
2-Nitroaniline	88-74-4		U	58.5	14.6
3-Nitroaniline	99-09-2		U	58.5	14.6
3,3'-Dichlorobenzidine	91-94-1		U	23.4	2.92
4-Bromophenyl-phenylether	101-55-3		U	11.7	2.92
4-Chloroaniline	106-47-8		U	11.7	5.85
4-Chlorophenyl-phenyl ether	7005-72-3		U	11.7	2.92
4-Nitroaniline	100-01-6		U	58.5	14.6
Acenaphthylene	208-96-8		U	11.7	2.92
Acenaphthene	83-32-9		U	11.7	2.92
Anthracene	120-12-7		U	11.7	2.92
Benzo(a)anthracene	56-55-3		U	11.7	2.92
Benzo(a)pyrene	50-32-8		U	11.7	2.92
Benzo(k)fluoranthene	207-08-9		U	11.7	2.92
Benzo(b)fluoranthene	205-99-2		U	11.7	2.92
Benzo(g,h,i)Perylene	191-24-2		U	11.7	2.92
Benzyl alcohol	100-51-6		U	11.7	2.92
Bis(2-Chloroethoxy)Methane	111-91-1		U	11.7	2.92
Bis(2-Chloroethyl) ether	111-44-4		U	11.7	2.92
bis(2-Chloroisopropyl) ether	39638-32-9		U	11.7	2.92
bis(2-Ethylhexyl)phthalate	117-81-7		U	11.7	2.92
Butylbenzylphthalate	85-68-7		Q	11.7	2.92
Chrysene	218-01-9		U	11.7	2.92
Di-N-Butylphthalate	84-74-2		U	11.7	2.92
Di-n-octylphthalate	117-84-0		U	11.7	2.92
Dibenzo(a,h)Anthracene	53-70-3		U	11.7	2.92
Dibenzofuran	132-64-9		U	11.7	2.92
Diethylphthalate	84-66-2		U	11.7	2.92
Dimethylphthalate	131-11-3		U	11.7	2.92
Fluoranthene	206-44-0		U	11.7	2.92
Fluorene	86-73-7		U	11.7	2.92
Hexachlorobenzene	118-74-1		U	11.7	2.92
Hexachlorobutadiene	87-68-3		U	11.7	2.92
Hexachlorocyclopentadiene	77-47-4		U	11.7	2.92
Hexachloroethane	67-72-1		U	11.7	2.92
Indeno(1,2,3-cd)pyrene	193-39-5		U	11.7	2.92
Isophorone	78-59-1		U	11.7	2.92
N-Nitrosodiphenylamine	86-30-6		U	11.7	2.92
N-Nitroso-di-n-propylamine	621-64-7		U	11.7	2.92
Naphthalene	91-20-3		U	11.7	2.92
Nitrobenzene	98-95-3		U	11.7	2.92
Phenanthrene	85-01-8		U	11.7	2.92
Pyrene	129-00-0		U	11.7	2.92
2,4,5-Trichlorophenol	95-95-4		U	11.7	2.92
2,4,6-Trichlorophenol	88-06-2		U	11.7	2.92
2,4-Dichlorophenol	120-83-2		U	11.7	2.92
2,4-Dimethylphenol	105-67-9		U	11.7	2.92
2,4-Dinitrophenol	51-28-5		Q	58.5	14.6
2-Chlorophenol	95-57-8		U	11.7	2.92
2-Methylphenol	95-48-7		U	11.7	2.92
2-Nitrophenol	88-75-5		U	11.7	2.92
4,6-Dinitro-2-methylphenol	534-52-1		Q	58.5	14.6

1000548
5620001

Microbac Laboratories Inc.

Report Number: L09040666

Report Date : May 1, 2009

Sample Number: L09040666-01
Client ID: FSVE-CW-42709
Matrix: Water
Workgroup Number: WG301150
Collect Date: 04/27/2009 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 3510C
Analytical Method: 8270C
Analyst: CAA
Dilution: 1
Units: ug/L

Instrument: HPMS4
Prep Date: 04/28/2009 08:00
Cal Date: 04/16/2009 15:02
Run Date: 04/29/2009 12:11
File ID: 4M46686

Analyte	CAS. Number	Result	Qual	RL	MDL
4-Chloro-3-methylphenol	59-50-7		U	11.7	2.92
3-,4-Methylphenol	106-44-5		U	11.7	2.92
4-Nitrophenol	100-02-7		U	58.5	14.6
Benzoic acid	65-85-0	22.7	F	58.5	14.6
Pentachlorophenol	87-86-5		Q	58.5	14.6
Phenol	108-95-2		U	11.7	2.92

Surrogate	% Recovery	Lower	Upper	Qual
2-Fluorophenol	47.5	20	120	
Phenol-d5	32.0	20	120	
Nitrobenzene-d5	71.0	41	120	
2-Fluorobiphenyl	69.0	48	120	
2,4,6-Tribromophenol	115	42	124	
p-Terphenyl-d14	116	51	135	

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

F Found; the analyte was positively identified with concentration above MDL but below RL.

Sample Number: L09040666-01
Client ID: FSVE-CW-42709
Matrix: Water
Workgroup Number: WG300977
Collect Date: 04/27/2009 08:00
Sample Tag: 01

PrePrep Method: NONE
Prep Method: 5030B
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/L

Instrument: HPMS8
Prep Date: 04/29/2009 19:25
Cal Date: 04/22/2009 19:08
Run Date: 04/29/2009 19:25
File ID: 8M353494

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5	5.06		0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200
1,4-Dichlorobenzene	106-46-7		U	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
Acetone	67-64-1	239		10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500

Report Number: L09040666

Report Date : May 1, 2009

Sample Number: L09040666-01
 Client ID: FSVE-CW-42709
 Matrix: Water
 Workgroup Number: WG300977
 Collect Date: 04/27/2009 08:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS8
 Prep Date: 04/29/2009 19:25
 Cal Date: 04/22/2009 19:08
 Run Date: 04/29/2009 19:25
 File ID: 8M353494

Analyte	CAS. Number	Result	Qual	RL	MDL
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		Q	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3	3.61		0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2	0.568	F	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
MEK (2-Butanone)	78-93-3	59.4		10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-,p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6	1.18		1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl acetate	108-05-4		Q	5.00	2.50
Vinyl chloride	75-01-4		U	1.00	0.250

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	103	85	115	
1,2-Dichloroethane-d4	98.3	72	119	
Toluene-d8	104	81	120	
4-Bromofluorobenzene	103	76	119	

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

F Found; the analyte was positively identified with concentration above MDL but below RL.

1000550
0420001

Microbac Laboratories Inc.

Report Number: L09040666

Report Date : May 1, 2009

Sample Number: L09040666-01
Client ID: FSVE-CW-42709
Matrix: Water
Workgroup Number: WG300989
Collect Date: 04/27/2009 08:00PrePrep Method: NONE
Prep Method: 9040C
Analytical Method: 9040C
Analyst: JBK
Dilution: 1
Units: UNITSInstrument: PRECISION
Prep Date: 04/28/2009 16:50
Cal Date:
Run Date: 04/28/2009 16:50
File ID: PR09042914042401

Analyte	CAS. Number	Result	Qual	RL	MDL
Corrosivity pH	10-29-7	6.88			

Sample Number: L09040666-02
Client ID: TB-42709
Matrix: Water
Workgroup Number: WG300977
Collect Date: 04/27/2009 00:01
Sample Tag: 01PrePrep Method: NONE
Prep Method: 5030B
Analytical Method: 8260B
Analyst: MES
Dilution: 1
Units: ug/LInstrument: HPMS8
Prep Date: 04/29/2009 10:51
Cal Date: 04/22/2009 19:08
Run Date: 04/29/2009 10:51
File ID: 8M353478

Analyte	CAS. Number	Result	Qual	RL	MDL
1,1,1,2-Tetrachloroethane	630-20-6		U	0.500	0.250
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	0.500	0.125
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,1-Dichloroethene	75-35-4		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,2-Dichloroethane	107-06-2		U	0.500	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,2-Dibromo-3-chloropropane	96-12-8		U	2.00	1.00
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,2-Dibromoethane	106-93-4		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,3-Dichloropropane	142-28-9		U	0.400	0.200
1,4-Dichlorobenzene	106-46-7	0.376	F	0.500	0.125
1-Chlorohexane	544-10-5		U	1.00	0.125
2,2-Dichloropropane	594-20-7		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	0.400	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	0.500	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
Carbon disulfide	75-15-0		Q	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	0.500	0.125
Chloroethane	75-00-3		U	1.00	0.500
Chloroform	67-66-3		U	0.300	0.125
Chloromethane	74-87-3		U	1.00	0.250
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	0.500	0.250
Dibromochloromethane	124-48-1		U	0.500	0.250
Dibromomethane	74-95-3		U	1.00	0.250

1000551
3329901

Report Number: L09040666

Report Date : May 1, 2009

Sample Number: L09040666-02

Client ID: TB-42709

Matrix: Water

Workgroup Number: WG300977

Collect Date: 04/27/2009 00:01

Sample Tag: 01

PrePrep Method: NONE

Prep Method: 5030B

Analytical Method: 8260B

Analyst: MES

Dilution: 1

Units: ug/L

Instrument: HPMS8

Prep Date: 04/29/2009 10:51

Cal Date: 04/22/2009 19:08

Run Date: 04/29/2009 10:51

File ID: 8M353478

Analyte	CAS. Number	Result	Qual	RL	MDL
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
Hexachlorobutadiene	87-68-3		U	0.600	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
Methylene chloride	75-09-2		U	1.00	0.250
Methyl t-butyl ether (MTBE)	1634-04-4		U	5.00	0.500
MEK (2-Butanone)	78-93-3		U	10.0	2.50
MIBK (methyl isobutyl ketone)	108-10-1		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
n-Propylbenzene	103-65-1		U	1.00	0.125
m-,p-Xylene	136777-61-2		U	2.00	0.500
Naphthalene	91-20-3		U	1.00	0.200
o-Xylene	95-47-6		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
Styrene	100-42-5		U	1.00	0.125
Trichloroethene	79-01-6		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.304	F	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
Trichlorofluoromethane	75-69-4		U	1.00	0.250
Vinyl acetate	108-05-4		Q	5.00	2.50
Vinyl chloride	75-01-4		U	1.00	0.250

Surrogate	% Recovery	Lower	Upper	Qual
Dibromofluoromethane	102	85	115	
1,2-Dichloroethane-d4	99.1	72	119	
Toluene-d8	103	81	120	
4-Bromofluorobenzene	103	76	119	

U Undetected; the analyte was analyzed for, but not detected.

Q One or more quality control criteria failed. See narrative.

F Found; the analyte was positively identified with concentration above MDL but below RL.

1000001
1000552

Thursday, May 07, 2009

Mr. Thomas Holmes
Project Manager
e²M Memphis Field office
2241 Truitt Street
Memphis, TN 38114

RE: Request for disposal of groundwater
Industrial Wastewater Discharge Agreement Permit # S-NN3-097
DES-DDC-EE (Memphis) @ 2163 Airways Blvd., Memphis, Tennessee

Dear Mr. Holmes:

We have received and approve your request to discharge of 20,000 gallons of groundwater from monitoring wells into the sanitary sewer system at the above referenced location. The discharge point is the sewer system through the existing discharge line for the ground water recovery system (IRA System) at the Dunn Field. The discharge flow rate should not exceed 30 gallon per minute.

This approval is for this batch of treated groundwater only.

If you should have any questions, please feel free to contact me at (901) 576-4337.

Sincerely,



Akil AL-Chokhachi
Environmental Engineer

Fax 774-6718

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APPENDIX D

WASTE DISPOSAL MANIFESTS

TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
TA-1 Initial							
12/4/2007	10600561	20	41460	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/4/2007	10600564	20	37900	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/4/2007	10600566	20	33040	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/4/2007	10600567	20	44500	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/4/2007	10600568	20	39080	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/5/2007	10600570	20	34040	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/5/2007	10600572	20	33040	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/10/2007	10600552	20	31940	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/10/2007	10600553	20	45020	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
12/11/2007	10600554	20	39720	Resource Transportation LLC	Rolloff	WMI Tunica	Contaminated soil
TA-1 Final							
3/4/2009	10907586	15	25700	Evergreen Tank Service	Rolloff	WMI Tunica	Contaminated soil
3/4/2009	10907587	15	27700	Evergreen Tank Service	Rolloff	WMI Tunica	Contaminated soil
3/4/2009	10907588	15	15960	Evergreen Tank Service	Rolloff	WMI Tunica	Contaminated soil
3/4/2009	10907589	15	25780	Evergreen Tank Service	Rolloff	WMI Tunica	Contaminated soil
IDW Soils							
7/31/2007	3101	20	nr	Allied Waste	Rolloff	BFI South Shelby	FSVE Trench Soil, construction debris
2/12/2008	10660649	2	nr	nr	2 Drums	WMI Tunica	ET&D storm water frac tank sludge
TA-3 Initial							
10/29/2007	10600625	20	46120	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/29/2007	10600626	20	38520	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/29/2007	10600630	20	42960	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/29/2007	10600633	20	41900	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/30/2007	10600627	20	45080	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/30/2007	10600628	20	43280	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/30/2007	10600629	20	38400	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/30/2007	10600631	20	41780	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/30/2007	10600632	20	43240	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/30/2007	10600634	20	44980	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600617	20	37480	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600618	20	41660	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600619	20	32360	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600620	20	45280	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600621	20	42000	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600622	20	36760	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600623	20	38000	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
10/31/2007	10600624	20	35800	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil

TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
11/1/2007	10600609	20	35900	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/1/2007	10600615	20	45680	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/1/2007	10600616	20	42060	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/6/2007	10600612	20	33040	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/6/2007	10600613	20	17840	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/6/2007	10600614	20	33860	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/7/2007	10600601	20	23740	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/7/2007	10600603	20	36700	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/7/2007	10600611	20	33960	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/8/2007	10600545	26	40580	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/8/2007	10600587	26	47420	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/8/2007	10600588	26	38040	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/8/2007	10600600	26	48280	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/8/2007	10600602	20	34200	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/8/2007	10600604	20	33360	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/8/2007	10600606	20	35720	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/9/2007	10600544	26	43140	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600546	26	39280	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600547	26	50740	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600548	26	40540	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600549	26	35940	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600550	26	42840	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600589	26	32100	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600590	20	37900	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/9/2007	10600591	26	46740	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600592	20	39540	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/9/2007	10600593	26	42540	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600594	26	47740	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600595	26	31440	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600596	26	35260	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600597	26	47800	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600598	26	34620	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600599	26	44920	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/9/2007	10600608	20	38980	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/9/2007	10601973	26	38940	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
11/12/2007	10600569	20	35460	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/15/2007	10600571	20	40020	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
11/15/2007	10600607	20	27240	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
12/3/2007	10600560	20	55920	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
12/3/2007	10600565	20	48060	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil
12/5/2007	10600572	20	33040	Resource Transportation LLC	Rolloff	WMI Tunica	Crushed drums, soil

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TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
1/3/2008	10600576	26	44700	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600577	26	42660	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600578	26	56840	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600579	26	51080	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600580	26	45000	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600581	26	54240	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600582	26	61900	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600583	26	49780	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600584	26	59320	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/3/2008	10600585	26	51740	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600551	26	54800	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600555	26	59000	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600556	26	39440	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600557	26	60640	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600558	26	50800	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600559	26	48800	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600573	26	53720	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600574	26	35800	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600575	26	42660	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10600586	26	69020	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621573	26	48820	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621574	26	39740	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621575	26	33480	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621576	26	55680	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621577	26	45440	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621578	26	63380	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621579	26	45480	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621581	26	40600	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621582	26	57700	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621583	26	51640	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621584	26	50560	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621585	26	48660	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621586	26	35620	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621587	26	49200	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621588	26	60560	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621589	26	44920	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621590	26	57040	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621591	26	55180	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621593	26	56660	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621594	26	42860	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621595	26	43900	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil

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TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
1/4/2008	10621596	26	46480	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621597	26	52580	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621598	26	53700	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621599	26	51080	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621600	26	50660	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/4/2008	10621602	26	58840	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600635	26	58000	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600636	26	54440	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600637	26	62080	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600638	26	53220	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600639	26	56500	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600640	26	59240	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600641	26	56760	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600642	26	45720	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10600643	26	48620	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10621553	26	58860	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10621554	26	50880	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10621555	26	55400	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10621556	26	48500	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10621555	26	57500	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/5/2008	10621580	26	61760	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26003	26	59060	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26004	26	54220	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26005	26	62140	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26008	26	54900	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26009	26	43600	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26010	26	53940	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26011	26	50460	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26012	26	63000	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26013	26	55700	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26014	26	47240	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26015	26	59980	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26016	26	50480	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26017	26	49880	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26018	26	50040	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26019	26	57540	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26020	26	49580	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	26021	26	53160	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621557	26	56300	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621558	26	53360	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621559	26	56360	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil

TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
1/7/2008	10621560	26	56900	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621561	26	54140	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621562	26	55080	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621563	26	40520	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621564	26	58840	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621566	26	47480	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621567	26	63880	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621568	26	53160	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621569	26	54680	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621570	26	58440	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621571	26	53920	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/7/2008	10621572	26	43100	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26001	26	56820	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26002	26	54960	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26006	26	54360	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26007	26	55240	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26023	26	54200	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26025	26	58720	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26027	26	50380	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26030	26	52300	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26031	26	48880	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26032	26	54240	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26033	26	62580	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26034	26	60780	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26035	26	61720	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26036	26	59160	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26037	26	59100	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26038	26	52340	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26039	26	55260	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26040	26	53980	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26041	26	35640	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26042	26	58640	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26043	26	55940	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	26044	26	49900	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660555	26	53360	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660556	26	54520	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660557	26	77640	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660558	26	43600	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660650	26	56240	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660651	26	57940	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
1/8/2008	10660652	26	43480	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil

TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
1/8/2008	10660653	26	51300	Matthew's Trucking	Dump	WMI Tunica	Crushed drums, soil
TA-3 Final							
5/12/2009	10970083	20	56580	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/12/2009	10970085	20	58200	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/12/2009	10970086	20	62640	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/12/2009	10970087	20	53860	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970072	20	40540	Knight Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970073	20	52360	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970074	20	38700	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970075	20	40340	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970076	20	44560	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970079	20	50160	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970080	20	50360	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970081	20	56940	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970082	20	51060	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970084	20	52580	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970088	20	57180	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970089	20	42160	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970090	20	62040	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970091	20	51880	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970092	20	63800	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970093	20	57020	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970094	20	44560	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970095	20	49900	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970096	20	40200	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970097	20	53680	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970099	20	60920	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970101	20	61600	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970102	20	62020	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970103	20	56700	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970104	20	45580	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/13/2009	10970110	20	45020	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970071	20	52380	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970098	20	66360	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970105	20	68740	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970106	20	67280	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970107	20	57920	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970108	20	48560	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970111	20	50580	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970112	20	61380	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil

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TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
5/14/2009	10970113	20	44420	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970114	20	43120	KLB Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970115	20	56120	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970116	20	62340	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970117	20	60820	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970118	20	61080	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970119	20	54920	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970120	20	43000	KLB Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970121	20	51900	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970122	20	59120	KLB Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970123	20	54660	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970124	20	54160	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970125	20	50120	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970126	20	50200	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970127	20	45120	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970128	20	55920	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970129	20	56280	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970130	20	47340	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970131	20	46080	KLB Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970132	20	58580	KLB Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970133	20	50440	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970134	20	51400	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970135	20	43260	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
5/14/2009	10970136	20	57880	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660562	20	48600	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660563	20	43420	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660569	20	66120	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660570	20	58360	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660571	20	47440	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660572	20	68260	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660573	20	54240	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660574	20	57620	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660575	20	41660	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660576	20	54680	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660577	20	39100	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660578	20	42480	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660579	20	46100	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660580	20	47440	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660581	20	48740	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660582	20	58180	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660583	20	63100	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil

00000001 000000561

TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
6/1/2009	10660584	20	53860	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660585	20	46720	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660586	20	48120	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660588	20	53940	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660589	20	40180	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660590	20	44960	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660591	20	42120	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660592	20	46120	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660593	20	48560	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/1/2009	10660594	20	40900	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660564	20	46800	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660565	20	47880	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660566	20	44500	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660567	20	41420	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660568	20	47400	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660567	20	43760	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660596	20	58640	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660597	20	49420	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660598	20	57380	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660599	20	56660	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660600	20	46900	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660601	20	50460	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660602	20	44940	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660603	20	54720	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660604	20	58600	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660605	20	60400	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660606	20	62420	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660607	20	47780	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660608	20	48500	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660609	20	54600	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660610	20	47440	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660611	20	48700	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660612	20	47160	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660613	20	49620	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660614	20	48880	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660615	20	47100	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660618	20	45400	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660619	20	48200	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/2/2009	10660620	20	56180	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660616	20	54800	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660621	20	55320	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil

Received

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
6/3/2009	10660622	20	54820	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660623	20	57040	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660624	20	47980	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660625	20	50020	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660626	20	44560	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660627	20	54660	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660628	20	53980	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660629	20	48620	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660630	20	53380	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660631	20	53740	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660632	20	50200	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660633	20	50020	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660634	20	54740	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660635	20	58940	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660636	20	50380	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660637	20	58400	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660638	20	53440	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660639	20	47380	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660640	20	47180	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660641	20	44300	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660642	20	49860	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660643	20	53200	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660644	20	58900	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660645	20	57920	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10660646	20	58960	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731670	20	48140	Matthew's & Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731671	20	52500	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731672	20	60380	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731673	20	47800	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731674	20	46860	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731675	20	43340	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731677	20	65580	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731678	20	53260	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731679	20	47800	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731680	20	42440	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731681	20	44940	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10731676	20	42880	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966566	20	45340	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966567	20	39760	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966568	20	61720	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966576	20	50140	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil

TABLE D-1
WASTE MANIFEST SUMMARY
SOURCE AREAS INTERIM REMEDIAL ACTION COMPLETION REPORT
Dunn Field - Defense Depot Memphis, Tennessee

Date	Manifest #	Cubic Yard	Weight (lbs)	Trucking Co.	Container	Disposal Facility	Comments
6/3/2009	10966569	20	46140	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966570	20	44840	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966571	20	49860	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966572	20	63380	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966573	20	48140	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/3/2009	10966574	20	61320	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/4/2009	10966575	20	65280	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/4/2009	10979752	20	38640	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/4/2009	10979754	20	51160	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/4/2009	10979755	20	45120	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/4/2009	10979756	20	46100	Strayhorn Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966577	20	55640	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966578	20	54960	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966579	20	63320	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966580	20	54140	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966581	20	55340	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966582	20	70080	Ross Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966583	20	61720	Perry Trucking	Dump	WMI Tunica	Crushed drums, soil
6/12/2009	10966584	20	56620	Shirley Trucking	Dump	WMI Tunica	Crushed drums, soil



NON-HAZARDOUS MANIFEST

1000564

320006

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CWM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address WENDEX DEFENSE DEPOT 1716 DILL AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 17607561			
4. Generator's Phone 210 634-9718				B. State Generator's ID TN 110053			
5. Transporter 1 Company Name Lawrence Transportation LLC		6. US EPA ID Number MS 1452001002024		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOVDRE ROAD BOONVILLE MS 38824				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS RB20089 WM Profile # 10076245				02/01 07 06/07/07			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TA-1 Ticket # 316292							
Purchase Order # _____				EMERGENCY CONTACT:			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kim Feuch				Signature "On behalf of" [Signature]		Month Day Year 11/14/07	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name MARTY WINDHAM				Signature [Signature]		Month Day Year 11/20/07	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/21/07	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316292

Customer Name E2M INC 436 E2M INC_436

Ticket Date 12/04/2007

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10600561

Destination

PO

Profile 100709MS (BURNED DRUMS)

Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time

In 12/04/2007 10:07:00 Scale1

Out 12/04/2007 10:07:00

Comments

Inbound Gross 84160 lb
Tare 42700 lb
Net 41460 lb
Tons 20.73

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.73	Tons				SHE
2 TRT-TRANSPORTATION 100		20.73	Tons				SHE

Total Tax
Total Ticket

Driver's Signature
Antony Winkler



NON-HAZARDOUS MANIFEST

9320001
1000566

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CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114		A. Manifest Number WMNA 10600564		
4. Generator's Phone 210 639-9719		B. State Generator's ID 10/1/03		
5. Transporter 1 Company Name Proance Transport & Hire LLC		C. State Transporter's ID 10/1/03		
6. US EPA ID Number 14523613102621		D. Transporter's Phone (615) 211-1125		
7. Transporter 2 Company Name		E. State Transporter's ID		
8. US EPA ID Number		F. Transporter's Phone		
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWWRE ROAD BIRMINGHAM MS 38244		G. State Facility's ID		
10. US EPA ID Number		H. Facility's Phone 662 363-2282		
11. Description of Waste Materials		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
a. BURIED DRUMS				
WM Profile # 100709MS		601	07	000070
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information Truck # 06010 Ticket # 316300 Purchase Order # _____ EMERGENCY CONTACT.				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Smith Signature "On behalf of" [Signature] Month Day Year 11/09/07				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature] Signature _____ Month Day Year 11/09/07			
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____			
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.			
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name [Signature] Signature [Signature] Month Day Year 11/09/07			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316302

Customer Name E2MINE_436 E2M INC_436
Ticket Date 12/04/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600564
Manifest
Destination
PO
Profile 100703MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 12/04/2007 10:45:50 Scaled
Out 12/04/2007 10:45:50
Comments

Inbound Gross 79660 lb
Tare 41760 lb
Net 37900 lb
Tons 18.95

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		18.95	Tons				SHE
2 TRI-TRANSPORTATION 100		18.95	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

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CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 164210070510		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 OLNEY AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600566	
4. Generator's Phone 210 839-8710						B. State Generator's ID TNHN057	
5. Transporter 1 Company Name <i>Waste Transfer, Inc.</i>				6. US EPA ID Number 1618100010121214		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD POUNCEVILLE MS 38664				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 333-2762	
11. Description of Waste Materials						12. Containers	
						No.	Type
						13. Total Quantity	
						14. Unit Wt/Vol	
						15. Misc. Comments	
a. BURIED DRUMS <i>8580074</i> WM Profile # 1007081AS						010107 100700	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information <i>Truck # 0717 Ticket # 316326</i> Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kenn S. Smith</i> Signature "On behalf of" <i>[Signature]</i> Month Day Year <i>12/1/93</i>							
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month Day Year <i>12/1/93</i>						
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____						
	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.						
	20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month Day Year <i>12/1/93</i>						



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316326

Customer Name E2MINC_436 E2M INC_436
Ticket Date 12/04/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600565
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier Vehicle#
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

Time	Scale	Inbound	Gross	Tare	Net	Tons
In 12/04/2007 12:21:56	Scale1		75740 lb	42700 lb	33040 lb	16.52
Out 12/04/2007 12:21:56						

Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		16.52	Tons				SHE
2 TRT-TRANSPORTATION 100		16.52	Tons				SHE

Total Tax
Total Ticket

Driver's Signature *Marty Windham*



NON-HAZARDOUS MANIFEST

10688570

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

CWM!

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEXIS DEFENSE DEPOT 1716 DICK AVE NEWARK NJ 07102				A. Manifest Number WMNA 10688570			
4. Generator's Phone 210 633-4710				B. State Generator's ID NJ 053			
5. Transporter 1 Company Name Hess Transport LLC		6. US EPA ID Number NJ 0001026214		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDIE ROAD ROBINSONVILLE MS 38854				E. State Transporter's ID			
10. US EPA ID Number				F. Transporter's Phone			
11. Description of Waste Materials BURIED DRUGS				G. State Facility's ID			
12. Containers				13. Total Quantity			
14. Unit Wt/Vol				15. Misc. Comments			
a. BURIED DRUGS				WM Profile # 10670043			
b.				WM Profile #			
c.				WM Profile #			
d.				WM Profile #			
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TA-1 PR 100000 Truck # 0717 Ticket # 316352							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Stouck				Signature "On behalf of" [Signature]			
Month Day Year 11/1/07							
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]			
Month Day Year 11/1/07							
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
Month Day Year							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name [Signature]				Signature [Signature]			
Month Day Year 11/1/07							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316352

Customer Name E2HINC_436 E2H INC_436
Ticket Date 12/04/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600567
Destination
PG
Profile 100705MS (BURNED DRUMS)
Generator 191-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0717
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

File
In 12/04/2007 15:01:23 Scale
Out 12/04/2007 15:01:23
Operator TRAMY
TAMY
Inbound
Gross 87200 lb
Tare 42700 lb
Net 44500 lb
Tons 22.25

Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		22.25	Tons				SHE
2 TRT-TRANSPORTATION 100		22.25	Tons				SHE

Total Tax
Total Ticket

Marty Windham
Driver's Signature



NON-HAZARDOUS MANIFEST

10005682

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 BURNING AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10005682							
4. Generator's Phone 210 839-8719				B. State Generator's ID TN							
5. Transporter 1 Company Name Pioneer Transportation LLC		6. US EPA ID Number TN 1000000000		C. State Transporter's ID TN							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 615-221-0198							
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID TN							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 682 323-2232							
11. Description of Waste Materials				12. Containers		13. Total Quantity		14. Unit Wt/Vol		I. Misc. Comments	
a. BURIED DRUMS				No. Type							
WM Profile # 1007000000				001/001		00000000					
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information A-1 Truck # 0016 Ticket # 316356 Purchase Order # _____ EMERGENCY CONTACT _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Spauld Signature "On behalf of" [Signature] Month Day Year 11 11 11											
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature] Signature [Signature] Month Day Year 11 11 11											
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature] Signature [Signature] Month Day Year 11 11 11											
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name [Signature] Signature [Signature] Month Day Year 11 11 11											



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316356

Customer Name E2MINC_436 E2M INC_436
Ticket Date 12/04/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600568
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time		Scale	Operator	Inbound	Gross	80840 lb
In	12/04/2007 15:20:05	Scale1	TAMMY		Tare	41760 lb
Out	12/04/2007 15:20:05		TAMMY		Net	39080 lb
					Tons	19.54

Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	19.54	Tons				SHE
2 TRT-TRANSPORTATION	100	19.54	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

1120001
1000574

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No T16421101070520		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600570			
4. Generator's Phone 210 638-8719				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Resource Transportation LLC				6. US EPA ID Number MSR000102624		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 601-664-7178	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38884				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100708MS				001 1017010020		14. Unit Wt/Vol	
b. WM Profile #						Misc. Comments	
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Purchase Order # TR # 0616 TR # 316426 EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Socolic				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/20/07	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Michael E. Gordon				Signature <i>[Signature]</i>		Month Day Year 11/20/07	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Francis Boyd				Signature <i>[Signature]</i>		Month Day Year 11/20/07	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316426

Customer Name E2M INC 436 E2M INC_436
Ticket Date 12/05/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600570
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 12/05/2007 12:50:47 Scale1
Out 12/05/2007 12:50:47
Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		17.02	Tons				SHE
2 TRT-TRANSPORTATION 100		17.02	Tons				SHE
3 LIN-LINERS 100		1	Each				
4 EVL-Env Fee Lg. - 100		1	Load				
5 FUEL-Fuel Surcharg 100			%				

Total Tax
Total Ticket

Driver's Signature

10600572



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TKH121100705701		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600572			
4. Generator's Phone 210 630-6710				B. State Generator's ID TNH053			
5. Transporter 1 Company Name Resource Transportation LLC		6. US EPA ID Number MSR10101162624		C. State Transporter's ID		D. Transporter's Phone 661-664-7178	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD ROBINSONVILLE MS 38884				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials BURIED DRUMS WM Profile # 100708MS				12. Containers		13. Total Quantity	
				No. Type		Unit wt./Vol	
				0101 017 00101210			
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TKH 0616 TKH 316455 Purchase Order # _____				EMERGENCY CONTACT:			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seavak				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 1/21/07	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Michael E. London				Signature <i>[Signature]</i>		Month Day Year 1/21/07	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Francis Boyce Signature <i>[Signature]</i> Month Day Year 1/21/07							



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 100700000000000000		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 9716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600552			
4. Generator's Phone 210 639-9710				B. State Generator's ID TN 40 053			
5. Transporter 1 Company Name P... ..		6. US EPA ID Number 100700000000000000		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
a. BURIED DRUMS				No. Type		Unit	
WM Profile # 1007000000				001 017		001 017	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information							
Purchase Order # 06019 Ticket # 314755 EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION:							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Ken Smith				Signature "On behalf of" [Signature]		Month Day Year 11/1/00	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/1/00	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/1/00	



Tunica Landfill
6835 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316755

Customer Name E2M INC 436 E2M INC_436
Ticket Date 12/10/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600552
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

Time	Scale	Operator	Inbound	Gross	75060 lb
In 12/10/2007 14:16:39	Scale1	TAMMY		Tare	43120 lb
Out 12/10/2007 14:16:39		TAMMY		Net	31940 lb
				Tons	15.97

Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		15.97	Tons				SHE
2 TRT-TRANSPORTATION 100		15.97	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

403W/M

1820001
1000580



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWMM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114		4. Generator's US EPA ID No. TH4210070270		A. Manifest Number WMNA 10600553
4. Generator's Phone 210 639-0719		5. Transporter 1 Company Name Waste Transfer Station, LLC		B. State Generator's ID PN46053
5. Transporter 1 US EPA ID Number MSR10000100716241		6. Transporter 2 Company Name		C. State Transporter's ID
7. Transporter 2 US EPA ID Number		8. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOONEVILLE MS 38824		D. Transporter's Phone 601-664-7178
9. Designated Facility US EPA ID Number		10. Facility's Phone 662 333-2282		E. State Transporter's ID
11. Description of Waste Materials BURIED DRUMS		12. Containers No. Type		F. Transporter's Phone
WM Profile # 10070205		13. Total Quantity 001 015 0101020		G. State Facility's ID
b. WM Profile #		14. Unit Wt./Vol.		H. Facility's Phone
c. WM Profile #		15. Misc. Comments		
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information Truck # 06610 Ticket # 316725 Purchase Order # _____ EMERGENCY CONTACT: _____				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name Anna Seabrook		Signature "On behalf of" <i>[Signature]</i>		Month Day Year 1/21/01
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Michael E. Leach		Signature <i>[Signature]</i>		Month Day Year 1/21/01
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name Barney Red		Signature <i>[Signature]</i>		Month Day Year 1/21/01



Original
Ticket# 316725

RESOURCE TRANS PORTATION
0616 Volume

[illegible]

Serial No: 0000436
Gen ID

Gross	85140 lb
Tare	43120 lb
Net	45020 lb
Tons	22.51

Inbound

Operator
T-2-1
T-2-2

CLOSED Dec. 24th at 12:00 noon & all day Dec. 25th. Reopen Dec. 26th.

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	22.51	Tons				SHE
2 TRI-TRANSPORTATION	100	22.51	Tons				SHE
3 EVL-Env Fee Lg. -	100	1	Load				SHE
4 FUEL-fuel Surcharg	100		%				SHE
5 LIN-LINERS	100	1	Each				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWMH

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 7104210070-70		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1736 DUTCH AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600554			
4. Generator's Phone 210 639-9718				B. State Generator's ID TN H0053			
5. Transporter 1 Company Name <i>Parsons Transportation LLC</i>		6. US EPA ID Number <i>MS 18100070 107624</i>		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 HOWDRE ROAD ROBINSONVILLE MS 38064		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 333-2232			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS							
WM Profile # 100712MS				<i>06/10/17</i>		<i>06/02/10</i>	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information							
<i>Truck # 06016</i> <i>Ticket # 314795</i> Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION.							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Smith</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year <i>1/21/2017</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Michael C. Smith</i>				Signature <i>[Signature]</i>		Month Day Year <i>1/21/2017</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Kevin Smith</i>				Signature <i>[Signature]</i>		Month Day Year <i>1/21/2017</i>	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316795

Customer Name E2M INC 436 E2M INC 436
Ticket Date 12/11/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600554
Destination
PO
Profile 100709MS (RUKNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

Time Scale Inbound Gross
In 12/11/2007 08:16:13 Scale1 TAWNY 82840 1b
Out 12/11/2007 08:16:13 TAWNY 43120 1b
Net 39720 1b
Tons 19.86

Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1. BURIED DRUMS-TONS- 100		19.86	Tons				SHE
2. TRT-TRANSPORTATION 100		19.86	Tons				SHE
3. EVL-Env Fee Lg. - 100		1	Load				SHE
4. FUEL-Fuel Surcharg 100		x					SHE
5. LIN-LINERS 100		1	Each				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Box # 2169

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TIA021106701010		Manifest Document No.		2. Page 1 of 1		
3. Generator's Name and Mailing Address Memphis Police Dept 1716 Dunn Ave Memphis, TN				A. Manifest Number WMNA 10907586				
4. Generator's Phone 210-679-6719				B. State Generator's ID TN4210907586				
5. Transporter 1 Company Name TIA 021106701010				C. State Transporter's ID				
6. US EPA ID Number				D. Transporter's Phone				
7. Transporter 2 Company Name				E. State Transporter's ID				
8. US EPA ID Number				F. Transporter's Phone				
9. Designated Facility Name and Site Address TUNICA, MS.				G. State Facility's ID				
10. US EPA ID Number				H. Facility's Phone				
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
a. Soil WM Profile # 101176MS				0101176		11115	TN	
b. WM Profile #								
c. WM Profile #								
d. WM Profile #								
J. Additional Descriptions for Materials Listed Above Landfill <input checked="" type="checkbox"/> Solidification <input type="checkbox"/> Bio Remediation <input type="checkbox"/>				K. Disposal Location Cell Level Ticket # 352537 TONS-B				
15. Special Handling Instructions and Additional Information IN CASE OF EMERGENCY CALL USES AT 1800 980-3232 Purchase Order # EMERGENCY CONTACT								
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.								
Printed/Typed Name X KEITH SENEK				Signature "On behalf of" X [Signature]		Month Day Year 12/10/09		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name X Roy Brown				Signature X [Signature]		Month Day Year 12/10/09		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year		
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.								
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name X [Signature]				Signature X [Signature]		Month Day Year 12/14/09		

18000585



Tunica Landfill
6035 Roadie Rd
Robinsonville, MS, 38064
Ph: 662 363 2202

Original -
Ticket# 382507

Customer Name USES_300 USES_300
Ticket Date 03/04/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code

Carrier EVERGREEN ETS EVERGREEN ETS TANK (SOL)
Vehicle# 842700 Volume
Container
Driver
Check#
Billing # 00000300
Gen Env ID

Manifest 10007506
Destination
PU 1) 000750 2) 000750 3) 000750 4) 000750
Profile 10117503 (CONTAMINATED SOIL AND DEBRIS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time	Scale	Operator	Inbound	Gross	
In 03/04/2009 09:27:32	Scale1	FRANCIS		Tare	60500 1b
Out 03/04/2009 09:27:32		FRANCIS		Net	34720 1b
				Tons	25700 1b
					11.89

Comments

OPEN MONDAY- FRIDAY 6:00 to 3:30 & SATURDAY 6:00 TO 11:30

Product	LD%	Qty	Unit	Rate	Tax	Amount	Origin
1 Special Misc-Tons- 100		12.89	Tons	24.00		\$309.36	SHF
2 FUEL-Fuel Surcharge 100			%	2.51		\$0.97	SHF
3 CVESA-Env Fee \$4.5 100		1	Load	4.00		\$4.00	SHF
4 Evf0-Env Fee \$0.10 100		1	Load	0.00		\$0.00	SHF

Roy Bryan

Total Tax
Total Ticket 3429.43

Driver's Signature



NON-HAZARDOUS MANIFEST

320001
1000586

Please print or type (Form designed for use on elite (12-pitch) typewriter)

box # 2274

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No		Manifest Document No		2. Page 1 of	
3. Generator's Name and Mailing Address Memphis before Depot 870011 1750 Dunn Rd. Memphis, TN		7142114070570				A. Manifest Number WMNA 10907587	
4. Generator's Phone 210-639-9719						B. State Generator's ID TN410053	
5. Transporter 1 Company Name Eich Green Tank Services		6. US EPA ID Number				C. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number				D. Transporter's Phone	
9. Designated Facility Name and Site Address Turned Landfill Robinsonville, MS		10. US EPA ID Number				E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone	
11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit Wt/Vol	
a. S.O.I. WM Profile # 101176 MS		No. Type		Quantity		Misc Comments	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill <input checked="" type="checkbox"/> Solidification <input type="checkbox"/> Bio Remediation <input type="checkbox"/>		K. Disposal Location		Cell		Level	
15. Special Handling Instructions and Additional Information IN CASE OF EMERGENCY, CALL USES, AT 1800-280-3232 Purchase Order # EMERGENCY CONTACT						Grid	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.		Printed/Typed Name Steve Souda		Signature: On Behalf of [Signature]		Month Day Year 10/30/92/9	
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year 11/3/92/9	
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year 11/3/92/9	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non hazardous materials covered by this manifest		Printed/Typed Name		Signature		Month Day Year	

CWM - NHM - 1 - 5/97

#2 - GENERATOR #1 COPY



Sanica Landfill
6235 Decore Rd
Robinsonville, MS, 38654
Ph: 662 363 2800

Original
Ticket# 352648

Customer Name USES_300 USES_300

Ticket Date 03/05/2009

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10007507

Destination

pt 1) 000750 2) 000750 3) 000750 4) 000750

Profile 10116MS (CONTAMINATED SOIL AND DEBRIS)

Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier EVERGREEN ETS EVERGREEN ETS TANK SOU

Vehicle# N08767

Volume

Container

Driver

Check#

Billing # 00000300

Gen EPA ID

	Time	Scale	Operator	Amount	Gross	
In	03/05/2009 09:04:35	Scaled	TARMY		Tare	74000 lb
Out	03/05/2009 09:45:46	Scaled	TARMY		Net	47100 lb
					Tons	13.05

Comments

OPEN MONDAY- FRIDAY 6:00 to 3:30 & SATURDAY 6:30 to 11:30

Product	LO%	Qty	Unit	Rate	Tax	Amount	Origin
1 Special Misc-Tons- 100		13.05	Tons	44.00		582.40	ONE
2 FUEL-Fuel Surcharge 100		%		2.51		50.64	ONE
3 EvF04-Env Fee \$4 S 100		1	Load	4.00		44.00	ONE
4 EvF0-Env Fee \$0 Lg 100		1	Load	0.00		0.00	ONE

Total Tax

Total Ticket

6353.44

Driver's Signature

T. Farnum



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Box # N 23742

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN 4210070570		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address Memphis Detenc. Plant 7777 DUNN AVE MEMPHIS TN				A. Manifest Number WMNA 10907588			
4. Generator's Phone 210-639-9719				B. State Generator's ID TN HND53			
5. Transporter 1 Company Name KUSPER TR SERVICES		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address TUNICA LANDFILL KOBLETSVILLE, MS.		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. SOI WM Profile # 10A76 MS				901 BX		15 TN	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill <input checked="" type="checkbox"/> Solidification <input type="checkbox"/> Bin Remediation <input type="checkbox"/>				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information IN CASE OF EMERGENCY CALL 1-800-220-3011 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
X Printed/Typed Name Kevin Spauld				Signature "On behalf of"		Month Day Year 10/30/21	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name R. B. Linn				Signature R. B. Linn		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name _____ Signature _____ Month Day Year _____							



Unica Landfill
6035 Dondos Rd
Robinsonville, MS, 38864
Ph: 662 363 1202

Original
Ticket# 352571

Customer Name USEG_300 USEG_300
Ticket Date 03/04/2000
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code

Carrier EVERGREEN ETS EVERGREEN ETS TANK SUI
Vehicle# 042/00 Volume
Container
Driver
Check#
Billing # 00000300
Ben EPA ID

Manifest 1090/588
Destination
PO 1) 0008750 2) 0008750 3) 0008750 4) 0008750 5)
Profile 10117600 (CONTAMINATED SOIL AND DEBRIS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

	Time	Scale	Operator	Inbound	Gross	
In	03/04/2000 12:50:11	Scale1	FRANCIS		50600	16
Out	03/04/2000 12:50:11		FRANCIS		34720	16
					15880	16
					7.98	

Comments

OPEN MONDAY- FRIDAY 6:00 to 3:30 & SATURDAY 6:00 TO 11:00

Product	Qty	UOM	Rate	Tax	Amount	Origin
1 Special Misc-Tons- 100	7.98	Tons	24.00		\$191.52	SHE
2 FUEL-Fuel Surcharge 100		%	2.51		\$5.36	SHE
3 EvFSA-Env Fee 94.5 100	1	Load	4.00		\$4.00	SHE
4 EvF8-Env Fee 10 Lg 100	1	Load	8.00		\$8.00	SHE
5 APV-Initial Approv 100	1	Each	50.00		\$50.00	SHE

Roy Bryan

Total Tax
Total Ticket 5259.00

Driver's Signature



NON-HAZARDOUS MANIFEST

102000190
1000590

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN 4210070570		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS Defense Depot 2000 E. Main Ave Memphis, TN				A. Manifest Number WMNA 10907589			
4. Generator's Phone 210-634-1719				B. State Generator's ID TN HNO53			
5. Transporter 1 Company Name EVERGREEN TANK SERVICES				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address TUNICA LANDFILL Robinsonville MS				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. Sol. WM Profile # 101176 MS				1001 BX		14. Unit wt/Vol 15 7A	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill <input checked="" type="checkbox"/> Solidification <input type="checkbox"/> Bio Remediation <input type="checkbox"/>				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information IN CASE OF EMERGENCY CALL 1800-280-3011 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Semak				Signature "On behalf of" [Signature]		Month Day Year 10/30/97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name L. Hancock				Signature [Signature]		Month Day Year 10/30/97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name				Signature		Month Day Year	

001000591
00100001

Tunica Landfill
6032 Woodro Rd
Robinsonville, MS, 38664
Ph: 662 363 2222

Original
Ticket# 352727

Customer Name USEG_300 USEG_300

Ticket Date 03/05/2009

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10507509

Destination

PO 1) 000750 2) 000750 3) 000750 4) 000750

Profile 10117645 (CONTAMINATED SOIL AND DEBRIS)

Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier EVERGREEN ETS EVERGREEN ETS TANK SOU

Vehicle# N38767

Volume

Container

Driver

Check#

Billing # 00000300

Gen Exp 10

	Time	Scale	Operator	Inbound	Gross	72000 lb
In	03/05/2009 13:07:50	Scale1	TAMMY		Lane	47100 lb
Out	03/05/2009 13:07:59		TAMMY		Net	25700 lb
					Tons	12.09

Comments

OPEN MONDAY- FRIDAY 6:00 To 3:30 & SATURDAY 6:30 To 11:30

Product	LO%	Qty	UOM	Rate	Tax	Amount	Origin
1 Special Misc-Tons- 1000		12.09	Tons	24.00		\$290.16	SHE
2 FUEL-Fuel Surcharge 1000			%	2.50		\$0.07	SHE
3 EvfS4-Env Fee 14.5 1000		1	Load	4.00		\$4.00	SHE
4 EvfD-Env Fee 30 Ly 1000		1	Load	0.00		\$0.00	SHE

Total Tax
Total Ticket \$294.23

Driver's Signature





BFI OF TENNESSEE, INC.
7111 OLD MILLINGTON RD.
MILLINGTON, TN 38053
(901) 872-7200

LMS TICKET NO. 142139

3101

NON-HAZARDOUS SPECIAL AND ASBESTOS WASTE MANIFEST

GENERATOR

GENERATOR INSTRUCTIONS

SPECIAL WASTE- COMPLETE SECTIONS: I., II., V., VII., VIII., IX., XI
ASBESTOS WASTE- COMPLETE SECTIONS: I thru XII (Section 1, if required to analyze for hazardous waste characteristics)

SECTION I BFI WASTE CODE TN 071231/43478658

SECTION II GENERATOR

NAME Memphis Defense Depot (E2M)

GENERATING LOCATION

PHONE NO

MAILING ADDRESS

2241 Truitt St. Memphis 38114

PHONE NO (210) 639-9719

SECTION III OPERATOR/CONTRACTOR

NAME

ADDRESS

PHONE NO

SECTION IV OWNER

NAME

PHONE NO

SECTION V WASTE DISPOSAL SITE

☐ North Shelby Landfill 7111 Old Millington Rd. Millington, Tenn. 38053

PHYSICAL SITE LOCATION

☒ South Shelby Landfill 5494 Malone Rd. Memphis, Tenn. 38116

PHONE NO

SECTION VI RESPONSIBLE AGENCY (LOCAL, STATE, EPA)

Mphs. & Shelby Cty Health Dept. 814 Jefferson Memphis, TN 38105

(901) 576-7588

Tenn. Div. of Air Pollution 295 Summer Jackson, TN 38301-3984

PHONE NO (901) 423-6484

SECTION VII DESCRIPTION OF WASTE

CONTAINERS
NO TYPE

TOTAL QUANTITY
UNIT

TYPE
DM-METAL DRUM
DM-PLASTIC DRUM
BA-6MIL PLASTIC
BAGS/WRAP
T-TRUCK
O-OTHER

UNITS
P-POUND
Y-YARDS
M³-CUBIC
METER
Y-CUBIC
YARDS
O-OTHER

10W cont. Soil

1 T

20yd³

ASBESTOS WASTE

RO, Asbestos, 9, NA2212, PG III

REGULATED

NON-REGULATED

SECTION VIII SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

SECTION IX GENERATOR CERTIFICATION

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations, AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Print/Type Name & Title

Signature

SECTION X OPERATOR CERTIFICATION (ASBESTOS)

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Print/Type Name & Title

Signature

TRANSPORTER

SECTION XI TRANSPORTER 1

NAME OF CO. Allied Waste

ADDRESS 3840 Homewood Rd. Memphis

DRIVER Rodney Stanton

TRUCK NO. 3035 PHONE NO. 794-3800

Acknowledgement of receipt of materials

Signature Rodney Stanton Date 2-31-07

SECTION XII TRANSPORTER 2

NAME OF CO.

ADDRESS

DRIVER

TRUCK NO. PHONE NO.

Acknowledgement of receipt of materials

Signature

Date

DISPOSAL SITE

DISCREPANCY INDICATION SPACE

DISPOSAL COORDINATES

(Landfill use only)

Print/Type Name

Signature/Date

SITE AND ADDRESS

DISPOSAL INSTRUCTIONS

☒ SOUTH SHELBY 5494 MALONE RD PERMIT # SNL 79-106-0135
☐ NORTH SHELBY 7111 OLD MILLINGTON RD PERMIT # SNL 79-106-0224

I hereby certify that the above material has been accepted and to the best of my knowledge the foregoing is true and accurate.

UR mix w/ refuse

Signature of Authorized Agent (Please Print)

Signature of Authorized Agent

Receiving Date

GENERATOR / OPERATOR ORIGINAL - WHITE • LANDFILL - YELLOW • TRANSPORTER - PINK • GENERATOR FILE - GOLDENROD



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1 Generator's US EPA ID No TM/42110070570		Manifest Document No 1111		2 Page 1 of 1	
3 Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 BIRCH JAVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10660649			
4 Generator's Phone 901-506-0748				B State Generator's ID TM/42110070570			
5 Transporter 1 Company Name		6 US EPA ID Number		C State Transporter's ID			
7 Transporter 2 Company Name		8 US EPA ID Number		D Transporter's Phone			
9 Designated Facility Name and Site Address THE TUCULA LANDFILL 6005 BOWTIE ROAD		10 US EPA ID Number		E State Transporter's ID			
				F Transporter's Phone			
				G State Facility's ID			
				H Facility's Phone 615-233-2122			
11 Description of Waste Materials BURIED DRUMS				12 Containers No	13 Total Quantity	14 Unit Wt/Vol	I. Misc. Comments
a BURIED DRUMS 2 Drums							
WM Profile # 10070246							
b							
WM Profile #							
c							
WM Profile #							
d							
WM Profile #							
J Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K Disposal Location Cell _____ Level _____ Grd _____			
15 Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name John Soper				Signature "On behalf of" 		Month Day Year 10/21/2018	
17 Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
18 Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20 Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name				Signature		Month Day Year	



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600025			
4. Generator's Phone 210 839-6710				B. State Generator's ID 10600025			
5. Transporter 1 Company Name Howland & Co		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone 601-661-2120	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 601 363-2282	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
a. BURIED DRUMS				No. Type		14. Unit Wt/Vol	
WM Profile # 100700MS				421 017		60.0 170	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information							
Truck # 0606 Ticket # 313580 Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION:							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin S. Smith				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/09/07	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Kevin S. Smith				Signature <i>[Signature]</i>		Month Day Year 10/09/07	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Kevin S. Smith				Signature <i>[Signature]</i>		Month Day Year 10/09/07	



Corrected Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313737

Customer Name EDMING, 436 EDM INC_436
Ticket Date 10/29/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600625
Manifest
Destination
PO
Carrier RESOURCE TRANS RESOURCE TRANSPORTATION
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 103702MS (GULMED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT

Time 10:23:22 11:15:22 11:15:22
Scale
Operator 103702
Inbound
Gross 87000 lb
Tare 41760 lb
Net 46120 lb
Tons 23.06
Comments REPLACEMENT TICKET FOR TICKET # 313737 REPLACEMENT TICKET FOR TICKET # 313697

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	23.06	Tons				SE
2 FUEL-Fuel Surchar	100	X					SE
3 TRL-TRANSPORTATION	100	1	Load				
4 DEL-DELIVERY FEE	100	1	Each				
5 LIN-LINENS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2202

Original
Ticket# 313550

Customer Name E2MINC_436 E2M INC_436
Ticket Date 10/29/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500625
Destination
PO
Carrier RESOLVE TRANS RESOURCE TRANSPORTION
Vehicle# 0816
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 102702MS (BURIED-VALUITS)
Generator 181-MEMPHISDEFENSE/OT MEMPHIS DEFENSE 0307

Time
In 10/29/2007 11:15:22 Scale
Out 10/29/2007 11:15:22 Scale1
Comments
Operator TERRY
Inbound
Gross 87880 lb
Tare 41760 lb
Net 46120 lb
Tons 23.06

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		23.06	Tons				SEE
2 FUEL-fuel Surchang 100			%				SEE

Additional Charges

Total Tax
Total Ticket

Driver's Signature

Joe J. Fry



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. [Blank]		Manifest Document No. [Blank]		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600626	
4. Generator's Phone 210-634-0710						B. State Generator's ID [Blank]	
5. Transporter 1 Company Name Robbin Transportation LLC				6. US EPA ID Number [Blank]		C. State Transporter's ID [Blank]	
7. Transporter 2 Company Name [Blank]				8. US EPA ID Number [Blank]		D. Transporter's Phone (615) 444-7179	
9. Designated Facility Name and Site Address THE FLORIDA LANDFILL 6035 BOYDRE ROAD ROBINSONVILLE MS 38234				10. US EPA ID Number [Blank]		E. State Transporter's ID [Blank]	
						F. Transporter's Phone [Blank]	
						G. State Facility's ID [Blank]	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100704485				0101 70		010270	
b. WM Profile #				[Blank]		[Blank]	
c. WM Profile #				[Blank]		[Blank]	
d. WM Profile #				[Blank]		[Blank]	
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ B o Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Box # 100941 TRUCK # 0700 TICKET # 313551 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name: Kevin Smith Signature: <i>[Signature]</i> Month Day Year: 11/12/07							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: Robbin Thomas Signature: <i>[Signature]</i> Month Day Year: 11/12/07							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: _____ Signature: _____ Month Day Year: _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name: Tracy Reed Signature: <i>[Signature]</i> Month Day Year: 11/12/07							



Corrected Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2202

Original
Ticket# 313738

Customer Name E2TIME 436 E2PI INC 436
Ticket Date 10/29/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 106400626
Destination
Profile 100709MS (BURIED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 07230
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 10/29/2007 11:19:17 Scaled
Out 10/29/2007 12:04:37 Scaled
Comments REPLACEMENT TICKET FOR TICKET # 313551 REPLACEMENT TICKET FOR TICKET # 313625

Inbound Gross 81700 lb
Tare 43180 lb
Net 38520 lb
Tons 19.26

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.26	Tons				SHE
2 FUEL-Fuel Surcharg 100		X					SHE
3 DEL-DELIVERY FEE 100		1	Each				
4 LIN-LINERS 100		1	Each				
5 TRL-TRANSPORTATION 100		1	Load				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313551

Customer Name ERMING 436 E2M INC_436
Ticket Date 10/29/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600526
Manifest Destination
Profile 103703MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0720 Volume
Container
Driver
Check#
Billing # 02000436
Gen EPA ID

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-100		19.26	Tons				SE
2 FUEL-Fuel Surcharg 100			X				SE

Additional Charges

Total Tax
Total Ticket

Driver's Signature *Rodric Thompson*

0021000601



Corrected Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313735

Customer Name E2M INC 436
Ticket Date 10/29/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600630
Manifest
Destination
PO
Profile 100789MS (BURIED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale Inbound Gross
In 10/29/2007 14:36:57 Scale1 84720 1b
Out 10/29/2007 14:36:57 41760 1b
Net 42360 1b
Tons 21.48

Comments REPLACEMENT TICKET FOR TICKET # 313594 REPLACEMENT TICKET FOR TICKET # 313690

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		21.48	Tons				SHE
2 FUEL-Fuel Surchang 100		%					SHE
3 TRL-TRANSPORTATION 100		1	Load				
4 DEL-DELIVERY FEE 100		1	Each				
5 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bourdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 3135794

Customer Name E2MINE_436 E2M INC_436
Ticket Date 10/23/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600630
Destination
PO
Profile 1007009MS (BURNED DRUMS)
Generator 101-MECHWISDEFENSE/OT MERCHANTS DEFENSE DEPOT

Carrier RESOURCE TRONS RESOURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time In 10/29/2007 14:36:57 Out 10/29/2007 14:36:57
Scale Scale1
Operator TONY TONY
Inbound Gross 84720 lb
Tare 41760 lb
Net 42960 lb
Tons 21.48

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-1000		21.48	Tons				SHE
2 FUEL-Fuel Surcharg 100			%				SHE

Additional Charges

Total Tax
Total Ticket

Driver's Signature

[Signature]

1000603



NON-HAZARDOUS MANIFEST

CWM

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 11111111111111111111		Manifest Document No. 11111111111111111111		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600833	
4. Generator's Phone 215 630-0716						B. State Generator's ID 4-053	
5. Transporter 1 Company Name Trans-Action LLC				6. US EPA ID Number 11111111111111111111		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone (615) 111-7178	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 5035 BOVDRE ROAD ROBINSONVILLE MS 38884				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						14. Unit Wt./Vol.	15. Misc. Comments
WM Profile # 100703MS						100	1000000
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Box # 30014 Truck # 0710 Ticket 313595 Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seolok				Signature "On behalf of"		Month Day Year 1/13/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name John Thompson				Signature		Month Day Year 1/13/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Thomas Reed				Signature		Month Day Year 1/13/97	



Tunica Landfill
6035 Bowdye Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Corrected Copy

Original
Ticket# 313736

Customer Name E2M INC 436
Ticket Date 10/23/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600633
Destination
PO
Profile 100709MS (BURIED DRUMS)
Generator 101-11EM411DEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURC TRANSPORTION
Vehicle# 0720
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 10/23/2007 14:40:57 Scale1
Out 10/23/2007 14:41:23 Scale1
Comments REPLACEMENT TICKET FOR TICKET # 313595 REPLACEMENT TICKET FOR TICKET # 313688

Operator TAPPY
Inbound Gross 85000 lb
Tare 43180 lb*
Net 41900 lb
Tons 20.95

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.95	Tons				SEE
2 FUEL-Fuel Surchang 100			%				SEE
3 TNL-TRANSPORTATION 100		1	Load				
4 DEL-DELIVERY FEE 100		1	Each				
5 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6835 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313595

Customer Name E2M INC 436 E2M INC 436
Ticket Date 10/29/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600633
Destination
Profile
Generator 10070916 (BURNED DRUMS)
191-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0720
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 10/29/2007 14:40:57 Scale
Out 10/29/2007 14:41:23 Scale
Comments
Operator
TAMMY
TAMMY
* Manual Weight
Inbound
Gross
Tare
Net
Tons
45000 lb
43100 lb*
41900 lb
20.95

WE WILL BE CLOSED MAINEER E2M FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.95	Tons				SHE
2 FUEL-Fuel Surcharg 100			x				SHE

Additional Charges

Driver's Signature

Robert Thompson

Total Tax
Total Ticket

3030001
1000607



Corrected Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313732

Customer Name ESTING, 436 EZM INC, 436

Ticket Date 10/23/2007

Payment Type Credit Account

Vehicle# 0720

Container Driver

Check#

Billing # 0000436

Gen EPA ID

Route

State Route Code

Plant Code

City

Profile

Generation

10/23/2007 15:01:24

Scale

Scale

10/23/2007 10:01:24

Operator

TON/AY

TON/AY

Gross

Tare

Net

Tons

86260 1b

43180 1b

45080 1b

22.54

Comments

FOX 23248 REPLACEMENT TICKET FOR TICKET # 313645 REPLACEMENT TICKET FOR TICKET

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-100	100	22.54	Tons				SHE
2 FUEL-Fuel Surcharg 100			x				SHE
3 TRN-TRANSPORTATION 100		1	Load				
4 DEL-DELIVERY FEE 100		1	Each				
5 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bowdrie Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313645

Customer Name E2M INC_436 E2M INC_436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600627
Destination
NO
Profile 100703MS (BURIED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT
Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0720
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 10/30/2007 10:01:24 Scale
Out 10/30/2007 10:01:24 Scale
Comments BOX 20048
Operator FRANCIS
Inbound
Gross 88260 lb
Tare 43100 lb
Net 45060 lb
Tons 22.54

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-100		22.54	Tons				SHE
2 FUEL-Fuel Surcharg 100			%				SHE

Additional Charges

Total Tax
Total Ticket

Driver's Signature

Richard Thompson



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 10600628		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600628			
4. Generator's Phone 210 532-0719				B. State Generator's ID TN 42053			
5. Transporter 1 Company Name E		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM MS 38264		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 383-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100709008				001 01		000020	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information 2320080 Truck #0719 - Ticket # 313641 Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name: <u>Gene Seabolt</u> Signature: <u>[Signature]</u> Month Day Year: <u>11 16 97</u>							
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: <u>Tim McLean</u> Signature: <u>[Signature]</u> Month Day Year: <u>11 16 97</u>						
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: _____ Signature: _____ Month Day Year: _____						
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.						
	20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name: <u>Theresa J. Ford</u> Signature: <u>[Signature]</u> Month Day Year: <u>11 16 97</u>						



Corrected Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313729

Customer Name EWM INC 436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600628
Manifest Destination
Profile 100700MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time In 10/30/2007 07:49:27 Scale 1
Out 10/30/2007 09:49:27
Operator TATTOY
Inbound Gross 85760 lb
Tare 42480 lb
Net 43280 lb
Tons 21.64
Comments REPLACEMENT TICKET FOR TICKET # 313641 REPLACEMENT TICKET FOR TICKET # 313638

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		21.64	Tons				GC
2 INTL-TRANSPORTATION 100		1	Load				
3 DEL-DELIVERY FEE 100		1	Each				
4 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
62035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313641

Customer Name E2M INC 436 E2M INC 436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600028
Manifest
Destination
FO
Profile 100700MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0719
Container
Driver
Check#
Balling # 0000436
Gen EPA ID

Time
In 10/30/2007 09:49:27 Scale
Out 10/30/2007 09:49:27 Scale
Comments

Inbound
Gross 65760 lb
Tare 42480 lb
Net 43280 lb
Tons 21.64

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	Unit	Rate	Tax	Amount	Origin
1 BURNED DRUMS-TONS-100		21.64	Tons				SHE
2 FUEL-Fuel Surcharg 100			X				SHE

Additional Charges

Total Tax
Total Ticket

Driver's Signature

8180900612



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

direct

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 1142110070374		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DILL AVE MEMPHIS TN 38114				A. Manifest Number WMNA 10900629							
4. Generator's Phone 210 639-9719				B. State Generator's ID							
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BOWDREVILLE MS 38824		10. US EPA ID Number		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 662 333-2732							
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments	
WM Profile # 100703MS				11 11		1000000					
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____					
15. Special Handling Instructions and Additional Information Purchase Order # 313669 EMERGENCY CONTACT.											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name: Kevin S. [Signature] Signature "On behalf of": [Signature] Month Day Year: 11/23/97											
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: [Signature] Signature: [Signature] Month Day Year: 11/23/97											
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: [Signature] Signature: [Signature] Month Day Year: 11/23/97											
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name: [Signature] Signature: [Signature] Month Day Year: 11/23/97											



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Corrected Copy

Original
Ticket# 313733

Customer Name E2M INC 436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10000629
Destination
PO
Profile 10070965 (HURLED DRUMS)
Generator 101-HEM-HISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 10/30/2007 12:11:07 Scale1
Out 10/30/2007 12:11:07
Gross 80880 lb
Tare 42400 lb
Net 38480 lb
Tons 19.20

Comments REPLACEMENT TICKET FOR TICKET # 313669 REPLACEMENT TICKET FOR TICKET # 313696

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS--	100	19.20	Tons				SHE
2 FUEL-Fuel Surcharg	100	x					SHE
3 INTL-TRANSPORTION	100	1	Load				
4 DEL-DELIVERY FEE	100	1	Each				
5 LIN-LINERS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313669

Customer Name E2M INC_436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10000529
Destination
EO
Profile 100700MS (BURIED DRUMS)
Generator 101-RENT-HISDEFENSEDEPOT REPAIRS DEFENSE DEPOT

Carrier RESOLVE TRANS RESOURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 00000436
Can EPA ID

Time
In 10/30/2007 12:11:07 Scale
Out 10/30/2007 12:11:07 Scale
Comments

Operator FRANCIS
Inbound
Gross 42400 lb
Tare 42400 lb
Net 30400 lb
Tons 13.20

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.20	Tons				SHE
2 FUEL-Fuel Surcharg 100		%					SHE

Additional Charges

Total Tax
Total Ticket

Driver's Signature

JMM



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600631	
4. Generator's Phone 210 614 0710						B. State Generator's ID 71160000	
5. Transporter 1 Company Name McGraw-Hill Construction				6. US EPA ID Number 170611421024		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone (601) 614-7178	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials BURIED DRUMS						12. Containers No.	13. Total Quantity
WM Profile # 100700MS						Type	14. Unit Wt/Vol
							I. Misc. Comments
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information Re 10062 TR 11 #1 0710 TCH 314677							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Frank				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/13/97	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name Kevin Frank		Signature <i>[Signature]</i>	
						Month Day Year 11/13/97	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
						Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis Bond				Signature <i>[Signature]</i>		Month Day Year 11/13/97	



Corrected Copy

Tunica Landfill
6035 Rowdine Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313734

Customer Name E2MNC_436 E2M INC_436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600531
Destination
PG
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0720
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

Time Scale
In 10/30/2007 12:40:58 Scale1
Out 10/30/2007 12:40:58
Gross 84960 lb
Tare 43180 lb
Net 41780 lb
Tons 20.89

Comments REPLACEMENT TICKET FOR TICKET # 313677 REPLACEMENT TICKET FOR TICKET # 313694

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.89	Tons				SHE
2 FUEL-Fuel Surchang 100			x				SHE
3 TRL-TRANSPORTATION 100		1	Load				
4 DEL-DELIVERY FEE 100		1	Each				
5 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver: 313734



Tunica Landfill
6835 Bowdrie Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313677

Customer Name EZHINC 436 E2M INC 436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600631
Manifest
Destination
FC
Profile 106789MS (BURNED DRUMS)
Generator 191-RETF415DEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time
In 10/30/2007 12:40:58 Scale Scale1
Out 10/30/2007 12:40:58
Comments

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.89	Tons				SE
2 FUEL-fuel Surcharg 100			x				SE

Additional Charges

Total Tax
Total Ticket

Driver's Signature

Robbie Thompson



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. [] [] [] [] [] [] [] [] [] []		Manifest Document No. [] [] [] [] [] [] [] [] [] []		2. Page 1 of 1									
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600632											
4. Generator's Phone 210 635 0719				B. State Generator's ID 61152											
5. Transporter 1 Company Name <i>Acme Transport</i>		6. US EPA ID Number 190101026241		C. State Transporter's ID											
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone											
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD POBISHVILLE MO 65064		10. US EPA ID Number		E. State Transporter's ID											
				F. Transporter's Phone											
				G. State Facility's ID											
				H. Facility's Phone 682 383-2282											
11. Description of Waste Materials				12. Containers		13. Total		14. Unit		15. Misc. Comments					
				No. Type		Quantity		Wt./Vol							
a. BURIED DRUMS				WM Profile # 1007004S		101 CT		100422							
b.				WM Profile #											
c.				WM Profile #											
d.				WM Profile #											
J. Additional Descriptions for Materials Listed Above				K. Disposal Location											
Landfill _____ Solidification _____				Cell _____ Level _____											
Bio Remediation _____				Grid _____											
15. Special Handling Instructions and Additional Information <i>RD 20042 Truck # 0719 - 313 700</i>															
Purchase Order # _____ EMERGENCY CONTACT: _____															
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.															
Printed/Typed Name <i>Alan Spauld</i>				Signature "On behalf of" <i>[Signature]</i>				Month Day Year 10 30 92							
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name <i>Tom Mil...</i>				Signature <i>[Signature]</i>				Month Day Year 11 10 92			
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.															
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.															
Printed/Typed Name <i>James E. ...</i>				Signature <i>[Signature]</i>				Month Day Year 11 10 92							



Corrected Copy

Tunica Landfill
6235 Bayshore Rd
Robinsonville, MS 38664
Ph: 662 355-8282

Original
Ticket# 313728

Carrier: Resource Trans Resource Transportation
Vehicle# 0719
Container:
Driver:
Dispatch:
Billing # 02220436
Gen EPA ID

10/23/2007 14:23:35

10/23/2007 14:23:35

10/23/2007 14:23:35

10/23/2007 14:23:35

10/23/2007 14:23:35

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10/23/2007 14:23:35

Driver's Signature

Total Tax
Total Ticket

Product	LDX	Qty	Unit	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	21.62	Tons				SHE
2 TRL-TRANSPORTATION	100	1	Load				SHE
3 DEL-DELIVERY FEE	100	1	Each				
4 LIN-LINERS	100	1	Each				

12 WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

REPLACEMENT TICKET FOR TICKET # 313728

Time	Scale	Operator	Inbound	Gross	65720 1b
10/23/2007 14:23:35	202151	WATSON		Tare	42480 1b
10/23/2007 14:23:35				Net	43240 1b
				Tons	21.62

10000620



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313700

Void

Customer Name EZM INC 436 EZM INC_436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600632
Manifest
Destination
Profile 100705YS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT
Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 10/30/2007 14:23:55 Scale
Out 10/30/2007 14:23:55
Comments
Inbound Gross 85720 1b
Tare 42480 1b
Net 43240 1b
Tons 21.62

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 CARRIED DRUMS-TONS- 100		21.62	Tons				SHE
2 101 TRANSPORTATION 100		1	Load				SHE
3 DEL-DELIVERY FLE 100		1	Each				
4 REMOVAL MATERIAL 100		0	Each				
5 RES. TRANSFER 100		1	Each				
6 LHM LHMFS 100		1	Each				

Remove

Total Tax
Total Ticket

Driver's Signature *MM*

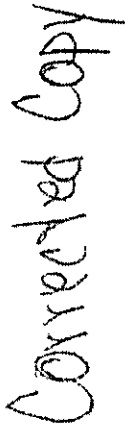


NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 021 007 057 01		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DISPO 1718 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600634			
4. Generator's Phone 210 638-8719				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name T. A. T. Co.		6. US EPA ID Number 157 46 411 001 001 001		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone (615) 781-7172			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOONVILLE MS 38824		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials BURIED DRUMS WM Profile # 10070645				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Route 1 TUNICA 0100 781-313787 Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Seaton Signature [Signature] Month Day Year 10/26/97							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name John T. ... Signature [Signature] Month Day Year 10/26/97							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name [Signature] Signature [Signature] Month Day Year 10/26/97							



Original Ticket# 313727

[illegible]

22-49
44380 1b
43180 1b
88160 1b

Gross
 Total
 Net
 Total

parroquia

1001-1002

U.S. AIR FORCE, AIRCRAFT ENGINEERING CENTER, WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6157

WE WILL BE CLOSED NOVEMBER 26th FOR THANKSGIVING DAY. REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	22.49	Tons				SHE
2 TRL-TRANSPORTATION	100	1	Load				SHE
3 DEL-DELIVERY FEE	100	1	Each				SHE
4 LIN-LINERS	100	1	Each				SHE

Total Tax
Total Ticket

Driver's Signature

CS 996622



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313707

Customer Name E2HINC_436 E2H INC_436
Ticket Date 10/30/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600034
Manifest
Destination
PO
Profile 10070075 (BURNED DRUMS)
Generator 181-REYNOLDS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0720
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

RESOURCE TRANS RESURCE TRANSPORTION
Volume

Time
In 10/30/2007 15:00:17 Scale
Out 10/30/2007 15:00:17 Scale
Gross 80160 lb
Tare 43180 lb
Net 44980 lb
Tons 22.49

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY KEOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS-TONS- 100		22.49	Tons				SE
2 TRL-TRANSPORTATION 100		1	Load				SE
3 DEL-DELIVERY FEE 100		1	Each				
4 BOX-PAY RETAIL 100		0	Each				
5 TRL-LINETS 100		1	Each				

Remove

Total Tax
Total Ticket

Driver's Signature

Robbin Thompson



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313723

Customer Name E2MNC_436 E2M INC_436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0000
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

In 10/31/2007 06:59:50 Scale1
Out 10/31/2007 06:59:50
Comments 10 BOXES FOR 10 DAYS= 100
2 BOXES FOR 2 DAYS = 4

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	0.01	Tons				SHE
2 BOX-BOX RENTAL	100	104	Each				SHE

Total Tax
Total Ticket

Driver's Signature

per: Carl Simmons *CR*

1000625



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 1047101025101		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1715 DUNN AVENUE MEMPHIS TN 38114						WMNA	
4. Generator's Phone 210-634-0719						B. State Generator's ID TN410005	
5. Transporter 1 Company Name R. C. ...				6. US EPA ID Number 1047101025101		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone (615) 444-1111	
9. Address THE TECHNICAL LANDFILL 6035 HOWARD ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 901-343-4281	
11. Description of Waste Materials						12. Containers	
BLINDED DRUMS						No. Type	
WM Profile #						13. Total Quantity	
WM Profile #						14. Unit Wt/Vol	
WM Profile #						1. Misc Comments	
J. Additional Descriptions for Materials Listed Above Landfill Solidification Bio Remediation						K. Disposal Location Cell Level Grid	
15. Special Handling Instructions and Additional Information Purchase Order # 0770 EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Signature: [Signature] Month Day Year 10/21/02							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: [Name] Signature: [Signature] Month Day Year 10/21/02							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: [Name] Signature: [Signature] Month Day Year							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name: [Name] Signature: [Signature] Month Day Year 10/21/02							



Converted Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 353 2282

Original
Ticket# 313725

Customer Name EEMINC 436 EEM INC_436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 106000517
Destination
PO
Profile 100700MS (BURIED DRUMS)
Generator 181-4EM04HSDENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS
Vehicle# 0720
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

RESOURCE TRANS
Volume

Time
In 10/31/2007 06:21:43 Scale
Out 10/31/2007 06:21:43
Operator
TERRY
TERRY
Inbound
Gross 00060 lb
Tare 43180 lb
Net 37480 lb
Tons 19.74

Comments REPLACEMENT TICKET FOR TICKET # 313719

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	18.74	Tons				SE
2 TRL-TRANSPORTATION	100	1	Load				SE
3 DEL-DELIVERY FEE	100	1	Each				SE
4 LIN-LINERS	100	1	Each				SE

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bowdye Rd
Robinsonville, MS, 38654
Ph: 662 363 2282

Original
Ticket# 313719

Customer Name E2M INC 436 INC 436
Ticket Date 10/31/2007
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code 10600617
Manifest
Destination

Profile 100704MS (MIND DUMPS)
Generator 101-METPHISDCHEPSEDERP WITH HIS DEVENE BROTHER

Type In 10/31/2007 06:21:43 Scaled
Out 10/31/2007 06:21:43
Comments

Carrier RESOURCE TRANS RESURCE TRANSPORTION
Vehicle# 0720
Container#
Driver
Check#
Bill # 0000436
Gen # 10

Inbound Gross 99660 1b
Tare 43100 1b
Net 37460 1b
Tons 18.74

WE WILL BE CLOSED NOVEMBER 22ND FOR THANKSGIVING DAY MONDAY 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	EMPHIS DUMPS-TONS - 100	18.74	Tons				SEE
2	TR - TRANSPORTATION 100	1	Load				SEE
3	DEL - DELIVERY FEE 100	1	Each				
4	LUMP - LUMPS 100	1	Each				
5	SEA - SEA RENT 100	2	Each				

Total Tax
Total Ticket

Driver's Signature *Robb Thompson*



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 08 21 0 008 000		Manifest Document No.		2. Page 1 of 1			
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600618			
4. Generator's Phone 210 639-8719						B. State Generator's ID TN 011033			
5. Transporter 1 Company Name ...				6. US EPA ID Number 08 21 0 008 000		C. State Transporter's ID			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone ...			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD ROBINSONVILLE MS 38864				10. US EPA ID Number		E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility's ID			
						H. Facility's Phone 682 373-7282			
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Misc. Comments
a. BURIED DRUMS									
WM Profile # 101708MS						001 57	000020		
b.									
WM Profile #									
c.									
WM Profile #									
d.									
WM Profile #									
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information P.O. # 20100 TRUCK # 0790 TIT # 313717 Purchase Order # _____ EMERGENCY CONTACT: _____									
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Spauld Signature "On behalf of" Kevin Spauld Month Day Year 11/02/07									
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Public Thompson Signature Public Thompson Month Day Year 11/02/07									
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____									
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.									
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Kevin Spauld Signature Kevin Spauld Month Day Year 11/02/07									



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313798

Customer Name E2VINC_436 E2M INC_436

Ticket Date 10/31/2007

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10600618

Destination

PO

Profile 100700MS (BURIED DRUMS)

Generator 181-TEMP-HISDEFENSEDEJOT NEWHIS DEFENSE DEJOT

Time

In 10/31/2007 13:27:02

Out 10/31/2007 13:27:02

Comments

Carrier RESOURCE TRANS RESOURCE TRANSPORTION

Vehicle# 0720

Container

Driver

Check#

Billing # 00000436

Gen EPA ID

Volume

Inbound Gross 84840 lb
Tare 43180 lb
Net 41660 lb
Tons 20.83

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
---------	-----	-----	-----	------	-----	--------	--------

1	BURIED DRUMS-TONS-100	20.83	Tons				SH
2	TRL-TRANSPORTATION 100	1	Load				SH
3	LNH-LINERS 100	1	Each				

Total Tax
Total Ticket

Robert Thompson

Generator's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 1110070532		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNE AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10500619	
4. Generator's Phone 210 694-9719						B. State Generator's ID TN 111005	
5. Transporter 1 Company Name T. J. L.				6. US EPA ID Number 105200100104		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDIE ROAD ROBINSONVILLE MS 38869				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 682 353-2232	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
BURIED DRUMS							14. Unit Wt/Vol
WM Profile # 10070245						200	215
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information TOX # 313789 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Norm S. Smith				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/03/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Tim Hill				Signature <i>[Signature]</i>		Month Day Year 11/03/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator, Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Norm S. Smith				Signature <i>[Signature]</i>		Month Day Year 11/03/97	



Tunica Landfill
6035 Rowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313789

Customer Name E2MINC_436 E2M INC_436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10622619
Manifest
Destination
PO
Profile 102707MS (BURIED DRAINS)
Generator 181-1ETMHSIDFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 00020436
Gen EPA ID

Time Scale
In 10/31/2007 12:13:28 Scaled
Out 10/31/2007 12:13:28
Comments

Inbound Gross
Tare
Net
Tons
74940 lb
42400 lb
32360 lb
16.18

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRAINS-TONS-100		16.18	Tons				SEE
2 TRL-TRANSPORTATION 100		1	Load				SEE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature

[Signature]



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T U 4 0 1 1 3 3 3 0		Manifest Document No.		2. Page 1 of 2	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600620	
4. Generator's Phone 210 635-0719						B. State Generator's ID TN 11 W 053	
5. Transporter 1 Company Name				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWMORE ROAD BOONVILLE MS 38824						E. State Transporter's ID	
10. US EPA ID Number						F. Transporter's Phone	
11. Description of Waste Materials						G. State Facility's ID	
12. Containers						H. Facility's Phone	
13. Total Quantity						14. Unit Wt/Vol	
15. Misc. Comments							
b. BURIED DRUMS							
WM Profile # 100709M5						0 2 0 0 7 0 0 0 0 0 0 0	
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information Pur # 20089 Truck # 10730 10730 213775 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name: <i>Kevin St. Paul</i> Signature "On behalf of": <i>[Signature]</i> Month Day Year: 11/17/97							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: <i>John T. [Signature]</i> Signature: <i>[Signature]</i> Month Day Year: 11/17/97							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: _____ Signature: _____ Month Day Year: _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name: <i>Frankie [Signature]</i> Signature: <i>[Signature]</i> Month Day Year: 11/17/97							



Waste Management
6035 Roudre Rd
Robinsonville, MS, 38664
Ph. 662 353 2232

Original
Ticket# 313775

Customer Name: ERMING 435 LHM INV 435
Ticket Date: 12/31/2007
Payment Type: Credit Account
Cancel Ticket:
Billing Ticket:
Route:
State Abbr Code: 165000000
Manifest:
Destination:
Profile: 10370976 (BURIED DRUMS)
Generation: 101-REPAIRS/STREETS/POI MEMPHIS DEFENSE DEPOT

Time: Scale: Inbound Gross 89460 1b
In 10/31/2007 10:57:53 Scale 43160 1b
Out 12/31/2007 10:57:53 Net 45289 1b
Tons 22.64

Comments:

WE WILL RE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		22.64	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature

Rollie Dwyer



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T07731100706710		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address KEYSIS DEFENSE DEPOT 1700 HAVENITE MEMPHIS TN 38114				A. Manifest Number WMNA 10800621			
4. Generator's Phone 210 530-0710				B. State Generator's ID TN000000			
5. Transporter 1 Company Name R. T. ... LLC		6. US EPA ID Number MSR000110101		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
				WM Profile # 100700MS		001 07 000000	
				b. WM Profile #			
				c. WM Profile #			
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TR 400 1117 Tot # 313766							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin S. ...</i>				Signature "On behalf of" <i>[Signature]</i>			
				Month Day Year 10 11 11			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>T. ...</i>				Signature <i>[Signature]</i>			
				Month Day Year 11 10 11			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
				Month			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>			
				Month Day Year			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313766

Customer Name EDMC 436 E2M INC 436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Routes
State Waste Code
Manifest 10600621
Destination
PO
Carrier RESOURCE TRANS RESURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 10070976 (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time	In	Out	Scale	Operator	Inbound	Gross	Net	Tons
	10/31/2007 10:22:21	10/31/2007 10:22:21	Scale1	TIMMY		42400 lb	42400 lb	21.00

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY HOLIDAY 22nd

Product	LD%	Qty	UJM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		21.00	Tons				SEE
2 TRL-TRANSPORTATION 100		1	Load				SEE
3 LIN-LINKS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature

405/04



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 7040100200707070		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600622	
4. Generator's Phone 210 638-0719						B. State Generator's ID TN 111252	
5. Transporter 1 Company Name 2. ...				6. US EPA ID Number 0000000000000000		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone (615) 1-4-7128	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38664				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 333-2132	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS WM Profile # 100702MS						0000000000000000	0000000000000000
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information P.O. # AB 10082 T-4 0760 Ticket # 313752 PURCHASE ORDER # EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seash				Signature "On behalf of" [Signature]		Month Day Year 1/13/12	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kathleen Thompson				Signature Kathleen Thompson		Month Day Year 1/13/12	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Thermy Rod							
				Signature [Signature]		Month Day Year 1/13/12	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
PH: 662 353 2282

Original
Ticket# 313752

Customer Name ERM INC 436 ERM INC 436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600622
Destination
FO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0720
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time In 10/31/2007 08:43:20 Scale Scale1
Out 10/31/2007 08:43:20
Comments
Inbound Gross 79240 1b
Tare 43100 1b
Net 36740 1b
Tons 10.30

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS-TONS-	100	10.30	Tons				SFE
2 TMA-TRANSPORTATION	100	1	Load				SFE
3 LIN-LINERS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature *Robbie Thompson*



NON-HAZARDOUS MANIFEST

01000638

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 1210970520		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 QUINN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600623							
4. Generator's Phone 210 634 9710				B. State Generator's ID TN 111553							
5. Transporter 1 Company Name R. T. ...		6. US EPA ID Number 1210970520		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOHNSVILLE MS 38824		10. US EPA ID Number		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 662 363-2000							
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity		14. Unit wt/vol		I. Misc. Comments	
WM Profile # 10070045				201 017		00001010					
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling instructions and Additional Information Rx RB 20087 Tank # 0719 Ticket # 315748 Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name Karin Spoush				Signature "On behalf of" [Signature]				Month Day Year 10/31/07			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name [Signature]				Signature [Signature]				Month Day Year 10/31/07			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest											
Printed/Typed Name [Signature]				Signature [Signature]				Month Day Year 10/31/07			

10000639



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313748

Customer Name E2M INC 436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600623
Destination
PO
Profile 10070975 (BURIED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Volume

Time
In 10/31/2007 08:18:44 Scale1
Out 10/31/2007 08:18:44
Comments

Operator
TERRY
TERRY

Inbound
Gross 80400 lb
Tare 42400 lb
Net 38000 lb
Tons 19.000

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.000	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature *JM*



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T W 4 2 1 0 8 7 5 7 0		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600624			
4. Generator's Phone 210 639-2719				B. State Generator's ID TN 11153			
5. Transporter 1 Company Name P. T. ...		6. US EPA ID Number 101 2 5 7 1 2 0 1 3 4		C. State Transporter's ID			
7. Transporter 2 Company Name Resource Transportation		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE TN 38864		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 652 333-2222			
11. Description of Waste Materials				12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
a. BURIED DRUMS WM Profile # 100703213				0 0 1 0 7 0 3 2 1 3			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Box # RB 20044 Trial # 119 Ticket # 313717 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin St. Mal...				Signature "On behalf of:" <i>[Signature]</i>		Month Day Year 10/31/17	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Tim ...				Signature <i>[Signature]</i>		Month Day Year 11/1/17	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name ...				Signature <i>[Signature]</i>		Month Day Year 10/31/17	



Corrected Copy

Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313726

Customer Name E2M INC 436 E2M INC 436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10000624
Destination
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time In 10/31/2007 06:00:48 Scale Scaled
Out 10/31/2007 06:00:48
Operator TERRY TERRY
Inbound Gross 78280 lb
Tare 42480 lb
Net 35800 lb
Tons 17.90

Comments REPLACEMENT TICKET FOR TICKET # 313717

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS-TONS-	100	17.90	Tons				SHE
2 TRL-TRANSPORTATION	100	1	Load				SHE
3 LIN-LINERS	100	1	Each				
4 DEL-DELIVERY FEE	100	1	Each				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6835 Bowdre Rd
Robinsonville, MS, 38954
Ph: 662 363 2282

Original
Ticket# 313717

VOID

Customer Name E2M INC 436 E2M INC 436
Ticket Date 10/31/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600024
Destination
FC
Profile 100709MS (REMOVED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time
In 10/31/2007 06:00:48 Scale
Out 10/31/2007 06:09:48 Scaled
Comments

Carrier RESOLUCE TRANS RESOURCE TRANSPORTION
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	ARMED DRUMS-TONS	100	17.90 Tons				
2	TRL-TRANSPORTATION	100	1 Load				SHE
3	LIN LIFERS	100	1 Each				SHE
4	DELIVERY FEE	100	1 Each				
5	DELIVERY FEE	100	1 Each				

Remove

Total Tax
Total Ticket

Driver's Signature *MM*



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 921 2070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600609	
4. Generator's Phone 210 639-0719						B. State Generator's ID TN 61053	
5. Transporter 1 Company Name Acme Transportation LLC				6. US EPA ID Number AB 2000102634		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6055 BOWDRE ROAD POBINSOAVILLE MS 38864				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						Type	14. Unit (Wt/Vol)
WM Profile # 100709MS						6101 07019010	I. Misc Comments
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information Box # 18 20042 Truck # 0219 Ticket # 313 829							
Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Anna Sproul				Signature "On behalf of"		Month Day Year 11/19/07	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Tommy Red				Signature		Month Day Year 11/19/07	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Tommy Red				Signature		Month Day Year 11/19/07	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 39664
Ph: 662 363 2282

Original
Ticket# 313829

Customer Name E2M INC 436
Ticket Date 11/01/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600509
Manifest
Destination
Profile 10070000 (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/01/2007 07:18:21 Scale
Out 11/01/2007 07:18:21
Comments

Inbound
Gross 78380 lb
Tare 42480 lb
Net 35900 lb
Tons 17.95

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS-TONS- 100		17.95	Tons				SE
2 TRL-TRANSPORTATION 100		1	Load				SE
3 LIN-LINENS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature

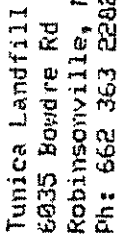


NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN 42116070570		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600815	
4. Generator's Phone 210 631-0710						B. State Generator's ID TN 42053	
5. Transporter 1 Company Name Resource Transportation LLC				6. US EPA ID Number 42R000103621		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							14. Unit w/vol
WM Profile # 100709MS						0010700040	I. Misc. Comments
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Box# RB 20080 Tin# 0719 TCH# 313888 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Sproule Signature "On behalf of" [Signature] Month Day Year 11/14/97							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Tom Williams Signature [Signature] Month Day Year 11/14/97							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name Thomas Williams Signature [Signature] Month Day Year 11/14/97							



Original Ticket# 313860

Carrier
Vehicle# 0719
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

NEWFHS DEFENSE DEPOT

88160 1b
42480 1b
45680 1b
22-84

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS--	100	22.84	Tons				SHE
2 TRL-TRANSPORTATION	100	1	Load				SHE
3 LIN-LINERS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature

1000647



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

C10049

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TW4210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600616	
4. Generator's Phone 210 638-9719						B. State Generator's ID TN H0053	
5. Transporter 1 Company Name Zaner Transportation LLC				6. US EPA ID Number MSR020010202H		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWERS ROAD BOBINSVILLE MS 38964				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						0	0
WM Profile # 100709043						0	0
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Purchase Order # <i>RLX# RB 20044</i> <i>Truck # 0719</i> EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Seibert</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/10/02	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Tom Miller</i>				Signature <i>[Signature]</i>		Month Day Year 11/10/02	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name <i>David</i>				Signature <i>[Signature]</i>		Month Day Year 11/10/02	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 313890

Customer Name E2HINC_436 E2H INC_436
Ticket Date 11/01/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500616
Destination
Profile 109709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0719
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Volume

In 11/01/2007 12:16:10 Scaled 84540 lb
Out 11/01/2007 12:16:10 Scaled 42480 lb
Net 42060 lb
Tons 21.03

Comments

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REDFEN 23rd

Product	Qty	Unit	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100	21.03	Tons				SHE
2 TRL-TRANSPORTATION 100	1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on 8 1/2 (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN0210000570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600612			
4. Generator's Phone 210 638-9710				B. State Generator's ID TN HWS			
5. Transporter 1 Company Name Remco Transportation LLC		6. US EPA ID Number MS1700010122024		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 615-648-9178			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDORE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 862 383-2282			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS				001 07		100020	
WM Profile # 100700MS							
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information 4R # 0616 Tet # 314308 EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seawt				Signature "On behalf of"		Month Day Year 1/10/07	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name Michael E. ...		Signature [Signature]	
						Month Day Year 1/15/07	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
						Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 1/1/07	



Tunica Landfill
5035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 353 2282

Original
Ticket# 314308

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/06/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600612
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 11/06/2007 14:14:47 Scale
Out 11/06/2007 14:14:47
Comments
Inbound Gross 74800 lb
Tare 41760 lb
Net 33040 lb
Tons 16.52

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		16.52	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T101310072570		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600613			
4. Generator's Phone 210 639-0710				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Resource Transportation LLC		6. US EPA ID Number MS12000100624		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 615-664-7198			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 363-2782			
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100708MS				001 07		000020	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR 101310072570 TCF # 314284							
Purchase Order #				EMERGENCY CONTACT:			
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name A. J. Smith				Signature "On behalf of"		Month Day Year 11/10/97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name A. J. Smith				Signature		Month Day Year 11/10/97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name Franklin Brown							
Signature				Month Day Year 11/10/97			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314284

Customer Name E2M INC 436 E2M INC 436
Ticket Date 11/06/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600613
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 11/06/2007 11:56:10 Scale1
Out 11/06/2007 11:56:10
Comments
Inbound Gross 59600 lb
Tare 41760 lb
Net 17840 lb
Tons 8.92

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	8.92	Tons				SHE
2 TRL-TRANSPORTATION	100	1	Load				SHE
3 LIN-LINERS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature

1000653



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWMR

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T1004510070270		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600614			
4. Generator's Phone 210 638-8714				B. State Generator's ID TNM1053			
5. Transporter 1 Company Name Resource Transportation LLC		6. US EPA ID Number MSR020102624		C. State Transporter's ID		D. Transporter's Phone 661-664-9114	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD DORRINGTON MS 38924		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662-363-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 10070045				001 07		000020	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Truck # 066 Ticket # 314250 Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin S. Smith				Signature "On behalf of"		Month Day Year 11/2/07	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Mr. David C. L. L.				Signature		Month Day Year 11/2/07	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Tommy Reed							
Signature Tommy Reed						Month Day Year 11/1/07	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314250

Customer Name E2M INC_436 E2M INC_436
Ticket Date 11/06/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600614
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/06/2007 08:48:51 Scale
Out 11/06/2007 08:48:51 Scale
Comments

Inbound
Operator
TAMMY
TAMMY
Gross 75620 lb
Tare 41760 lb
Net 33860 lb
Tons 16.93

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		16.93	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN-H-111111111111111111		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 1000655	
4. Generator's Phone 218-638-710						B. State Generator's ID TN-H-111111	
5. Transporter 1 Company Name S. C. ...				6. US EPA ID Number TN-111111111111111111		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE ... AND ... 6005 HOWELL ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662-363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
UNIDENTIFIED MS							14. Unit Wt/Vol
WM Profile # 110700000							Misc. Comments
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill Solidification Bio Remediation						K. Disposal Location Cell Level Grid	
15. Special Handling Instructions and Additional Information Purchase Order # 7-11-81 0000 7-11-81 314364 EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name				Signature "On behalf of"		Month Day Year	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
19. Certificate of Final Treatment/Disposal				I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.			
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest				Printed/Typed Name		Signature	
						Month Day Year	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314364

Customer Name E2M INC_436 E2M INC_436
Ticket Date 11/07/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600601
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/07/2007 11:05:12 Scale
Out 11/07/2007 11:05:12 Scale
Comments
Inbound Gross 65500 lb
Tare 41760 lb
Net 23740 lb
Tons 11.87

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		11.87	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature

1000657



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1 Generator's US EPA ID No T 0 4 0 0 2 0 1 7 0		Manifest Document No		2 Page 1 of 1	
3 Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1776 DUAN AVENUE MEMPHIS TN 38114						A Manifest Number WMNA	
4 Generator's Phone 901-328-4719						B State Generator's ID T 0 4 0 0	
5 Transporter 1 Company Name T. J. DICK			6 US EPA ID Number T 0 4 0 0 2 0 1 7 0			C State Transporter's ID	
7 Transporter 2 Company Name			8 US EPA ID Number			D Transporter's Phone (a) 9 0 1	
						E State Transporter's ID	
						F Transporter's Phone	
			10 US EPA ID Number			G State Facility's ID	
THE PUNKA LANDFILL 6025 BOWEN ROAD MEMPHIS TN 38114						H Facility's Phone 901-363-2262	
G E N E R A T O R	11 Description of Waste Materials				12 Containers No	13 Total Quantity	14 Unit Wt/Vol
	WORLD DRUGS						
	WM Profile # 10770685						
	b WM Profile #						
	c WM Profile #						
d WM Profile #							
J Additional Descriptions for Materials Listed Above						K Disposal Location	
Landfill Solidification						Cell Level	
Bio Remediation						Grid	
15 Special Handling Instructions and Additional Information							
16 GENERATOR'S CERTIFICATION							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name				Signature "On behalf of"			
				Month Day Year			
T R A N S P O R T E R	17 Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name				Signature		
				Month Day Year			
18 Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
				Month Day Year			
F A C I L I T Y	19 Certificate of Final Treatment/Disposal						
	I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.						
20 Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name				Signature			
				Month Day Year			

1000658
1000001



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314341

Customer Name E2MINC 436 E2M INC_436
Ticket Date 11/07/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600603
Destination
PO
Profile 100709NS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

Time
In 11/07/2007 08:49:02 Scale
Out 11/07/2007 08:49:02 Scale1
Comments

Inbound
Gross 78460 lb
Tare 41760 lb
Net 36700 lb
Tons 18.35

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		18.35	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No <u>TU0021P070570</u>		Manifest Document No <u>1</u>		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600811			
4. Generator's Phone 210 639-0719				B. State Generator's ID TN00053			
5. Transporter 1 Company Name Resource Transportation LLC		6. US EPA ID Number <u>MSR0000102624</u>		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone <u>661-064-7171</u>			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD POUNCEVILLE MS 38864		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone <u>662 383-2232</u>			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit	
BURIED ORUGS WM Profile # <u>10070045</u> b. WM Profile # c. WM Profile # d. WM Profile #				201 01		100070	
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information <u>Truck # 06016 Ticket # 314322</u> Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <u>Kevin S. Smith</u>				Signature "On behalf of" <u>[Signature]</u>		Month Day Year <u>11/15/07</u>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <u>Michael J. Lane</u>				Signature <u>[Signature]</u>		Month Day Year <u>11/15/07</u>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <u>Thomas R. Ford</u>							
				Signature <u>[Signature]</u>		Month Day Year <u>11/02/07</u>	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314322

Customer Name E2MIND 436 E2M INC_436
Ticket Date 11/07/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600611
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/07/2007 06:07:35 Scale
Out 11/07/2007 06:07:35
Comments
Inbound Gross 75720 lb
Tare 41760 lb
Net 33960 lb
Tons 16.98

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		16.98	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TUN 12070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600545	
4. Generator's Phone 210 622-9710						B. State Generator's ID TN HWO51	
5. Transporter 1 Company Name <i>Miller Trucking</i>				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDIE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Facility's ID	
						F. Facility's Phone 901 353-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				WM Profile # 100709MS		14. Unit Wt/Vol 0101 01 010126	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information <i>Truck # HF4</i> <i>Ticket # 345 SS</i> Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin Spauld</i> Signature "On behalf of" <i>Kevin Spauld</i> Month Day Year <i>11/11/17</i>							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>David L. Johnson</i> Signature <i>David L. Johnson</i> Month Day Year <i>11/13/17</i>							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>Tommy Reed</i> Signature <i>Tommy Reed</i> Month Day Year <i>11/13/17</i>							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314555

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600545
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier HUBERT FRANKS LLC HUBERT FRANKS LLC
Vehicle# HF4
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Type
In 11/09/2007 10:58:47 Scale
Out 11/09/2007 10:58:47 Scale1
Comments

Inbound Gross 71720 lb
Tare 31140 lb
Net 40580 lb
Tons 20.29

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	20.29	Tons				SHE
2 TRT-TRANSPORTATION	100	20.29	Tons				SHE
3 FUEL-Fuel Surcharg	100	%					SHE
4 EVL-Env Fee Lg.	100	1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN072100005701		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600587	
4. Generator's Phone 210 630 0710						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Tennessee Trucking			6. US EPA ID Number			C. State Transporter's ID 1661702	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 HOWARD ROAD MEMPHIS TN 38114			10. US EPA ID Number			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 062 383 2282	
11. Description of Waste Materials a. BURIED DRUMS WM Profile # 1007094S						12. Containers	
						No.	Type
						b. WM Profile #	
						c. WM Profile #	
						d. WM Profile #	
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						13. Total Quantity	
						14. Unit Wt/Vol	
						Misc. Comments	
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____						K. Disposal Location Cell _____ Level _____ Grid _____	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <u>Acorn Sequent</u> Signature "On behalf of" <u>[Signature]</u> Month Day Year _____							
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <u>DANIEL L. WILKINSON</u> Signature <u>[Signature]</u> Month Day Year <u>11/18/97</u>						
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____						
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.						
	20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <u>FRANK BORD</u> Signature <u>[Signature]</u> Month Day Year <u>11/18/97</u>						



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314494

Customer Name E2M INC 436
Ticket Date 11/08/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600587
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 11/08/2007 15:24:21 Scale
Out 11/08/2007 15:24:21 Scale1
Inbound Gross 81260 lb
Tare 33840 lb
Net 47420 lb
Tons 23.71

Comments REPLACEMENT TICKET FOR TICKET # 314493

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-100		23.71	Tons				SHE
2 TRT-TRANSPORTATION 100		23.71	Tons				SHE
3 TRT-TRANSPORTATION 100		23.71	Tons				

Total Tax
Total Ticket

Driver's Signature



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314493

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/08/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600587
Manifest
Destination
Profile
Generator 100709MS (BURNED DRUMS)
181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/08/2007 15:24:21 Scale
Out 11/08/2007 15:24:21 Scale1
Comments
Inbound Gross 01260 lb
Tare 33840 lb
Net 47420 lb
Tons 23.71

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS--100		23.71	Tons				SHE
2 TRT-TRANSPORTATION 100		23.71	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T 10 01 1 7 0 0 7 0 5 7 0		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1710 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600588							
4. Generator's Phone 210 633-9710				B. State Generator's ID TN H2053							
5. Transporter 1 Company Name McKinnis Trucking		6. US EPA ID Number		C. State Transporter's ID 1661723		D. Transporter's Phone					
7. Transporter 2 Company Name 0		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone					
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 333-7332					
11. Description of Waste Materials BURIED DRUMS WM Profile # 1007082AS				12. Containers		13. Total Quantity		14. Unit Wt/Vol		I. Misc. Comments	
				No. Type							
				0101 017		01010216					
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name Karen Smith				Signature "On behalf of" <i>[Signature]</i>				Month Day Year 11 08 07			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name David Thompson				Signature <i>[Signature]</i>				Month Day Year ____			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name ____				Signature ____				Month Day Year ____			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.											
Printed/Typed Name ____				Signature ____				Month Day Year ____			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314520

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500568
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Type
In 11/09/2007 07:44:45 Scale
Out 11/09/2007 07:44:45 Scale1
Comments
Operator TAMMY
Inbound
Gross 67680 lb
Tare 29640 lb
Net 38040 lb
Tons 19.02

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LO%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.02	Tons				SHE
2 TRT-TRANSPORTATION 100		19.02	Tons				SHE
3 EVL-Env Fee Lg. - 100		1	Load				SHE
4 FUEL-Fuel Surcharg 100			%				SHE

[Signature]

Driver's Signature

Total Tax
Total Ticket



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 7443100020570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600600			
4. Generator's Phone 210 639-9710				B. State Generator's ID TN 00052			
5. Transporter 1 Company Name Hillman Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6005 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 602 333-2732			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS							
WM Profile # 1007000AS				02/10/97		02/10/97	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information Truck # RT02 Ticket # 314506 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Spauld				Signature "On behalf of" [Signature]		Month Day Year 11/10/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name N. L. E. N.				Signature [Signature]		Month Day Year 11/10/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name T. J. [Signature]				Signature [Signature]		Month Day Year 11/10/97	

83200001
10006669



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314506

Customer Name E2M INC 436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600600
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 11/09/2007 06:41:35 Scale1
Out 11/09/2007 06:59:58 Scale1
Comments

Inbound Gross 76840 lb
Tare 30560 lb
Net 46280 lb
Tons 24.14

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-100		24.14	Tons				SHE
2 TRT-TRANSPORTATION 100		24.14	Tons				SHE
3 EVL-Env Fee Lg. - 100		1	Load				SHE
4 FUEL-Fuel Surcharg 100		%					SHE

Total Tax
Total Ticket

Driver's Signature

Handwritten signature



NON-HAZARDOUS MANIFEST

1500670
1000670

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TWH 2118070570		Manifest Document No.		2. Page 1 of 2					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNCAN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600602							
4. Generator's Phone 210 639-4710				B. State Generator's ID Tennessee							
5. Transporter 1 Company Name Resource Transportation LLC		6. US EPA ID Number ASR 000100624		C. State Transporter's ID		D. Transporter's Phone 601 621-7111					
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone					
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6135 BOWDRE ROAD BONDISVILLE MS 38824		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 363-2282					
11. Description of Waste Materials				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Misc. Comments				
a. BURNED DRUMS WM Profile # 10070BMS				001	01	000210					
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information Purchase Order # _____ T6 " 0606 T6 " 314867 EMERGENCY CONTACT											
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name Norm Seale				Signature "On behalf of"		Month Day Year 11/13/17					
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name W. J. H. H.				Signature		Month Day Year 11/13/17					
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year					
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Ernest B. B.								Signature Ernest B. B.		Month Day Year 11/13/17	

CWM - NHM - 1-597

#3 - TRANSPORTER #1 COPY



Tonaca Landfill
6835 Woodrue Rd
Robinsonville, MS 38664
Ph: 662 363 2282

Original
Ticket# 314464

Customer Name E2M INC_436 L2M INC_436
Ticket Date 11/08/2007
Payment Type Credit Account
Manifest Ticket#
Hauling Ticket#
Route
State Waste Code 1040302
Manifest 1040302
Destination
PO
Profile 102709MS (BURIED DUMPS)
Generator 181-NEPAHUSOFFEN-DEPOT NEWHUS DEFENSE DEPOT

Carrier RESOURCE TRIMS RESOURCE TRANSPORTATION
Vehicle# 0516
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale Inbound Gross Volume
In 11/08/2007 11:44:41 Sealed 75960 1b
Out 11/08/2007 11:44:41 41760 1b
34800 1b
17.10

Comments

WE WILL BE CLOSED NOVEMBER 22ND FOR THANKSGIVING DAY RETURN 23RD

Product	LOS	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DUMPS TRIMS - 100		17.10	Tons				SHE
2 TRL - TRANSPORTATION 100		1	Load				SHE
3 LHM-LINES 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 704210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600604			
4. Generator's Phone 210 639-4710				B. State Generator's ID TNHL1053			
5. Transporter 1 Company Name Romero Transport, Inc. LLC		6. US EPA ID Number MSR0000102624		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 601 629 7778			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDORE ROAD MEMPHIS TN 38124		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 353-2782			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		14. Unit Wt/Vol	
a. COILED DRUMS							
WM Profile # 100708248				00107		00020	
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TRF 06/15 TRF 2/4/03 Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Smith				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11 02 07	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Mark Smith				Signature <i>[Signature]</i>		Month Day Year 11 02 07	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Kevin Smith				Signature <i>[Signature]</i>		Month Day Year 11 02 07	

ST10000673



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314484

Customer Name E2WINC_436 E2M INC_436
Ticket Date 11/08/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600604
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRANS
Vehicle# 0616
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

RESOURCE TRANSPORTATION
Volume

Time Scale
In 11/08/2007 14:00:42 Scale1
Out 11/08/2007 14:00:42
Comments REPLACEMENT TICKET FOR TICKET # 314483

Inbound Gross 77120 lb
Tare 41760 lb
Net 35360 lb
Tons 17.68

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	17.68	Tons				SHE
2 TRL-TRANSPORTATION	100	1	Load				SHE
3 LIN-LINERS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN000110070570		Manifest Document No.		2. Page 1 of 3	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1760 RIVER AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600606			
4. Generator's Phone 210 639-9710				B. State Generator's ID TNH0053			
5. Transporter 1 Company Name Kerrigan Transport Inc		6. US EPA ID Number AL000001026214		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 615-444-9171			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWRE ROAD BIRMINGHAM AL 35207		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 862-343-2282			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS							
WM Profile # 10070845				0010700020			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Truck # 010160 Ticket # 314445 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kerrigan Transport Inc				Signature "On behalf of" [Signature]		Month Day Year 11 11 97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11 11 97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name [Signature]							
Signature [Signature]				Month Day Year 11 11 97			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314445

Customer Name E2M INC_436 E2M INC_436
Ticket Date 11/08/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600606
Manifest
Destination
PG
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/08/2007 09:42:11 Scale
Out 11/08/2007 09:42:11 Scale
Comments

Inbound Gross 77480 lb
Tare 41760 lb
Net 35720 lb
Tons 17.86

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		17.86	Tons				SHE
2 TRL-TRANSPORTATION 100		1	Load				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 100708MS		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEXICO DEFENSE DEPOT 1700 BILLOU AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600544							
4. Generator's Phone 210 639-9719				B. State Generator's ID TN 4W 053							
5. Transporter 1 Company Name Hickman Trucking		6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address THE TUSCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35234		10. US EPA ID Number		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 862 363-2282							
11. Description of Waste Materials				12. Containers		13. Total Quantity		14. Unit Wt./Vol		15. Misc. Comments	
a. BURIED DRUMS				No. Type							
WM Profile # 100708MS				02 1 07 02 02 0							
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above				K. Disposal Location							
Landfill _____ Solidification _____				Cell _____ Level _____							
Bio Remediation _____				Grid _____							
15. Special Handling Instructions and Additional Information Purchase Order # EMERGENCY CONTACT:											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name <i>Kevin Spauld</i>				Signature "On behalf of" <i>[Signature]</i>				Month Day Year 11/15/17			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name <i>Kevin Gregory</i>				Signature <i>[Signature]</i>				Month Day Year 11/15/17			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.											
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>				Month Day Year 11/15/17			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314565

Customer Name E2M INC 436 E2M INC 436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10500544
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/09/2007 11:44:46 Scale
Out 11/09/2007 11:44:46 Scale1
Comments
Inbound
Operator FRANCIS
Gross 75580 lb
Tare 32440 lb
Net 43140 lb
Tons 21.57

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		21.57	Tons				SHE
2 TRT-TRANSPORTATION 100		21.57	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Kevin Gregory

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 00004211000705170		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600546			
4. Generator's Phone 210 633-0719				B. State Generator's ID TN H053			
5. Transporter 1 Company Name <i>Matthew T. ...</i>		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 632 363-2132			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		14. Unit Wt/Vol	
a. BURIED DRUMS						I. Misc. Comments	
WM Profile # 10070845				06/10/97 06/02/96			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Soil Identification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information <i>TRUCK # MT3</i> <i>TICKET # 314556</i>							
Purchase Order #				EMERGENCY CONTACT			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kenn ...</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year <i>11/05/97</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>James ...</i>				Signature <i>[Signature]</i>		Month Day Year <i>11/05/97</i>	

1000679
8100001



Tunica Landfill
6035 Rowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314556

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500546
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier HUBERT FRANKS LLC HUBERT FRANKS LLC
Vehicle# MT3
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/09/2007 11:01:19 Scale
Out 11/09/2007 11:01:19 Scale
Comments

Inbound Gross 72440 lb
Tare 33160 lb
Net 39280 lb
Tons 19.64

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.64	Tons				SHE
2 TRT-TRANSPORTATION 100		19.64	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

(Signature)

Driver's Signature



1000880

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM - NHM - II - 507

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314544

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600547
Destination
PO
Profile 100703MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 11/09/2007 10:02:57 Scale1
Out 11/09/2007 10:02:57
Comments

Inbound Gross 81300 lb
Tare 30560 lb
Net 50740 lb
Tons 25.37

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDx	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		25.37	Tons				SHE
2 TRT-TRANSPORTATION 100		25.37	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. -- 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature

403WA



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TJ 001211 0007 05701		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600548	
4. Generator's Phone 210 830-9719						B. State Generator's ID TN 00053	
5. Transporter 1 Company Name <i>W. H. ...</i>			6. US EPA ID Number			C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38861			10. US EPA ID Number			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 303-2282	
11. Description of Waste Materials						12. Containers	13. Total Quantity
						No.	Unit
						Type	Wt/Vol
a. BURIED DRUMS							
WM Profile # 10070945						001	0020026
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information <i>Truck # 52</i> <i>Ticker # 314550</i>							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin ...</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year <i>11/01/07</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Walter Sanders</i>				Signature <i>[Signature]</i>		Month Day Year <i>11/01/07</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Travis ...</i>				Signature <i>[Signature]</i>		Month Day Year <i>11/01/07</i>	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314550

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600548
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# S2
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 11/09/2007 10:35:18 Scale1
Out 11/09/2007 10:35:18
Comments

Inbound Gross 72860 1b
Tare 32320 1b
Net 40540 1b
Tons 20.27

WE WILL BE CLOSED NOVEMBER 22nd FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.27	Tons				SHE
2 TRT-TRANSPORTATION 100		20.27	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature *Darrell Sanders*



NON-HAZARDOUS MANIFEST

81000684

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWSA

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN00210070570		Manifest Document No.		2. Page 1 of 1							
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNLAP AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 20607549							
4. Generator's Phone 210 632-4710						B. State Generator's ID TN 053							
5. Transporter 1 Company Name McKinnis Trucking						C. State Transporter's ID							
7. Transporter 2 Company Name						D. Transporter's Phone							
8. US EPA ID Number						E. State Transporter's ID							
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD GORDONSBURG MS 39054						F. Transporter's Phone							
10. US EPA ID Number						G. State Facility's ID							
11. Description of Waste Materials BURIED DRUMS						H. Facility's Phone 662 363-2282							
GENERATOR						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments	
						No. Type							
						2 5 1 0 1 7 0 2 0 2 4							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____													
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.													
Printed/Typed Name Tom Spack						Signature "On behalf of"		Month Day Year 11 11 97					
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name David Gail						Signature		Month Day Year 11 11 97					
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name						Signature		Month Day Year					
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.													
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.													
Printed/Typed Name Dennis Bond						Signature		Month Day Year 11 11 97					



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314567

Customer Name E2M INC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600549
Manifest
Destination
PG
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 11/09/2007 11:49:56 Scale1
Out 11/09/2007 11:49:56
Comments
Inbound Operator Gross
Francis FRANCIS Tare 67700 lb
Net 31760 lb
Tons 35940 lb
17.97

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REDFEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		17.97	Tons				SHE
2 TRT-TRANSPORTATION 100		17.97	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

David

Driver's Signature



NON-HAZARDOUS MANIFEST

1000686

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 71042110070530		Manifest Document No.		2. Page 1 of 1							
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 00001 1710 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600550									
4. Generator's Phone 210 639-9719				B. State Generator's ID TN/HW 053									
5. Transporter 1 Company Name McIntosh Trucking		6. US EPA ID Number		C. State Transporter's ID									
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone									
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35254		10. US EPA ID Number		E. State Transporter's ID									
				F. Transporter's Phone									
				G. State Facility's ID									
				H. Facility's Phone 602 363-2262									
11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit Wt/Vol		I. Misc. Comments					
a. HURIED DRUMS		No. Type		Quantity		Unit Wt/Vol		Misc. Comments					
WM Profile # 100700MS		0101 01T		01010106									
b. WM Profile #													
c. WM Profile #													
d. WM Profile #													
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____									
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____													
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.													
Printed/Typed Name K. Smith				Signature "On behalf of"				Month Day Year 11/01/07					
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name T. Smith				Signature				Month Day Year 11/01/07					
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature				Month Day Year					
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.													
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Frankie Boyd										Signature Frankie Boyd		Month Day Year 11/01/07	

310000687



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314569

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600550
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# TB2
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 11/09/2007 11:54:20 Scaled
Out 11/09/2007 11:54:20
Comments

Inbound Gross 73760 lb
Tare 30920 lb
Net 42840 lb
Tons 21.42

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		21.42	Tons				SHE
2 TRT-TRANSPORTATION 100		21.42	Tons				SHE
3 FUEL-Fuel Surcharg 100		%					SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CMSR

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNLAVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 100 13589	
4. Generator's Phone 210 632-9710						B. State Generator's ID	
5. Transporter 1 Company Name				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDIE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 632 383-2732	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUGS						Type	14. Unit Wt/Vol
WM Profile # 10070948							I. Misc. Comments
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TRUCK HF4 Ticket # 314526 Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Ann Saut				Signature "On behalf of" [Signature]		Month Day Year 11/1/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature		Month Day Year 11/1/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/1/97	

1000689



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314526

Customer Name E2MINC_436 E2M INC_436 Carrier HUBERT FRANKS LLC HUBERT FRANKS LLC
Ticket Date 11/09/2007 Vehicle# HF4 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000436
State Waste Code Gen EPA ID
Manifest 10600589
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time		Scale	Operator	Inbound	Gross
In	Out	Scale1	TAMMY		Tare
11/09/2007 08:41:52	11/09/2007 08:53:42	Scale1	TAMMY		Net
					Tons
				63240 lb	16.05
				31140 lb	
				32100 lb	

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		16.05	Tons				SHE
2 TAT-TRANSPORTATION 100		16.05	Tons				SHE
3 FUEL-Fuel Surcharg 100			X				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature

400WM



NON-HAZARDOUS MANIFEST

1000690

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TJH1053		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNCAN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600590			
4. Generator's Phone 210 632-9710				B. State Generator's ID TJH1053			
5. Transporter 1 Company Name McHone Trucking		6. US EPA ID Number		C. State Transporter's ID 16A1727		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TURCCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35234		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 632 333-2232	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100708345				0101 015		01010216	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT TR 571 TD 314538							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Koua S. Ford				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/10/97	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name David L. Ford				Signature <i>[Signature]</i>		Month Day Year 11/10/97	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Francis Boyd				Signature <i>[Signature]</i>		Month Day Year 11/10/97	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314538

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600590
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# 501
Container
Driver
Check#
Billing # 00000435
Gen EPA ID

Time In 11/09/2007 09:38:38 Out 11/09/2007 09:56:03
Scale Scale1
Operator FRANCIS
Inbound Gross 69650 lb
Tare 31750 lb
Net 37900 lb
Tons 18.95

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	18.95	Tons				SHE
2 TRT-TRANSPORTATION	100	18.95	Tons				SHE
3 FUEL-Fuel Surcharg	100	%					SHE
4 EVL-Env Fee Lg. -	100	1	Load				SHE

Total Tax
Total Ticket

Driver's Signature

David H. Hall



NON-HAZARDOUS MANIFEST

1000692
280901

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN000120070570		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 BINGHAM AVE MEMPHIS TN 38114				A. Manifest Number WMNA 10600591							
4. Generator's Phone 218-932-0710				B. State Generator's ID TN00073							
5. Transporter 1 Company Name Hillman Trucking		6. US EPA ID Number		C. State Transporter's ID 1667724							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 901-343-2282							
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments	
a. BURIED DRUMS WM Profile # 100702MS				0101 DT 0101 ZIC							
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information Truck # STC2 Ticket # 314529 Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin H. Hoot</i> Signature "On behalf of" <i>[Signature]</i> Month Day Year <i>11 15 07</i>											
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____											
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name <i>DAVID L. WILSON</i> Signature <i>[Signature]</i> Month Day Year <i>11 15 07</i>											
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>William J. Hoot</i> Signature <i>[Signature]</i> Month Day Year <i>11 15 07</i>											



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314529

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600591
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 00000436
Gen EPA ID
Time Scale Operator Inbound Gross
In 11/09/2007 09:00:31 Scale1 TAMMY 80560 lb
Out 11/09/2007 09:00:31 TAMMY 33840 lb
Net 46740 lb
Tons 23.37

Comments

WE WILL BE CLOSED NOVEMBER 23th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		23.37	Tons				SHE
2 TRT-TRANSPORTATION 100		23.37	Tons				SHE
3 FUEL-Fuel Surcharg 100		%					SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

1000694

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T1342110070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 RUMBLE AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600592			
4. Generator's Phone 210 638-6710				B. State Generator's ID TN			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 343-7282	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS							
WM Profile # 100700245				0101 01010126			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TR 1 B 4 -TCL- 314535							
Purchase Order # _____				EMERGENCY CONTACT: _____			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin French		Signature "On behalf of"		Month Day Year 11/13/17			
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name Tim Rubin		Signature		Month Day Year 11/13/17	
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.		20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		Printed/Typed Name Loren B...		Signature Loren B...	
				Month Day Year 11/13/17			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314535

Customer Name E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600592
Destination
PO
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TB2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPT MEMPHIS DEFENSE DEPOT

Time	Scale	Operator	Inbound	Gross	Volume
In 11/09/2007 09:33:34	Scale1	FRANCIS		Tare	70460 lb
Out 11/09/2007 09:51:11	Scale1	FRANCIS		Net	30920 lb
				Tons	39540 lb
					19.77

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.77	Tons				SHE
2 TRT-TRANSPORTATION 100		19.77	Tons				SHE
3 FUEL-Fuel Surchang 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

1000696

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUCK JAVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10000593			
4. Generator's Phone 210 634-9719				B. State Generator's ID TN/HHS3			
5. Transporter 1 Company Name Matthew Trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864				10. US EPA ID Number		G. State Facility's ID	
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		14. Unit Wt/Vol	
a. BURIED DRUMS						1. Misc. Comments	
WM Profile # 100700MS				0101 017		71012126	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TUNICA DEFENSE DEPOT TUNICA 314532							
Purchase Order # _____				EMERGENCY CONTACT _____			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin D. Hulse				Signature "On behalf of" [Signature]		Month Day Year 11/13/17	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Kevin Gregory 53				Signature Kevin Gregory 53		Month Day Year 11/13/17	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis Bond				Signature Francis Bond		Month Day Year 11/13/17	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314532

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600593
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S2
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		21.27	Tons				SHE
2 TRT-TRANSPORTATION 100		21.27	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature

Kevin Gregory



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 710210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address NEW JHS DEFENSE DEPOT 1716 EUE AVENUE NEW JHS TN 38114						A. Manifest Number WMNA 10600594	
4. Generator's Phone 210 639-8719						B. State Generator's ID TNH053	
5. Transporter 1 Company Name McGraw-Hill						C. State Transporter's ID	
6. US EPA ID Number						D. Transporter's Phone	
7. Transporter 2 Company Name						E. State Transporter's ID	
8. US EPA ID Number						F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 835 BOWDRE ROAD BOONVILLE MS 38854						G. State Facility's ID	
10. US EPA ID Number						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100709MS						201	2700056
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Truck # T701 Ticket # 314518 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin Stoddard</i> Signature "On behalf of" <i>Kevin Stoddard</i> Month Day Year 11/1/07							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>EMILY BLANCO</i> Signature <i>Emily Blanco</i> Month Day Year 11/1/07							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>Therese Reed</i> Signature <i>Therese Reed</i> Month Day Year 11/1/07							

10000699



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 362 2282

Original
Ticket# 314518

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10500594
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 00000435
Gen EPA ID

Time Scale Operator Inbound Gross 76140 lb
In 11/09/2007 07:37:40 Scale1 TAMMY Tare 28400 lb
Out 11/09/2007 07:37:40 Net 47740 lb
Tons 23.87

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	23.87	Tons				SHE
2 TRT-TRANSPORTATION	100	23.87	Tons				SHE
3 EVL-Env Fee Lg. -	100	1	Load				SHE
4 FUEL-Fuel Surcharg	100	x					SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

1000700

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 106-11595							
4. Generator's Phone 210 638-8719				B. State Generator's ID 106-11595							
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone					
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone					
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 602 363-2282					
11. Description of Waste Materials				12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments	
BURIED DRUMS				No. Type							
WM Profile # 100700045											
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above				K. Disposal Location							
Landfill _____ Solidification _____				Cell _____ Level _____							
Bio Remediation _____				Grid _____							
15. Special Handling Instructions and Additional Information											
Purchase Order # <i>TRUCK # MT3</i> EMERGENCY CONTACT: <i>TRUCK # 314528</i>											
16. GENERATOR'S CERTIFICATION											
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name <i>Don J. Smith</i>						Signature "On behalf of" <i>Don J. Smith</i>					
Month Day Year <i>11/1/97</i>											
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name						Signature					
Month Day Year <i>11/1/97</i>											
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name						Signature					
Month Day Year <i>11/1/97</i>											
19. Certificate of Final Treatment/Disposal											
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.											
Printed/Typed Name <i>Don J. Smith</i>						Signature <i>Don J. Smith</i>					
Month Day Year <i>11/1/97</i>											



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314528

Customer Name E2HINC_436 E2M INC_436 Carrier HUBERT FRANKS LLC HUBERT FRANKS LLC
Ticket Date 11/09/2007 Vehicle# MT3 Volume

Payment Type Credit Account Container

Manual Ticket# Driver

Hauling Ticket# Check#

Route Billing # 0000436

State Waste Code Gen EPA ID

Manifest 10600595

Destination

PO

Profile 100709MS (BURNED DRUMS)

Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

	Time	Scale	Operator	Inbound	Gross
In	11/09/2007 08:51:45	Scale1	TAMMY		64500 lb
Out	11/09/2007 09:12:00	Scale1	FRANCIS		33150 lb
					31440 lb
					15.72

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		15.72	Tons				SHE
2 TRI-TRANSPORTATION 100		15.72	Tons				SHE
3 FUEL-Fuel Surcharg 100		%					SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 11111111111111111111		Manifest Document No. 11111111111111111111		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600506			
4. Generator's Phone 210 639-8719				B. State Generator's ID 11111111111111111111			
5. Transporter 1 Company Name 11111111111111111111		6. US EPA ID Number 11111111111111111111		C. State Transporter's ID 11111111111111111111			
7. Transporter 2 Company Name 11111111111111111111		8. US EPA ID Number 11111111111111111111		D. Transporter's Phone 11111111111111111111			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number 11111111111111111111		E. State Facility's ID 11111111111111111111			
				F. Facility's Phone 682 363-2282			
11. Description of Waste Materials BURNED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100708215				11 11		11 11	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Truck # 52 Ticket # 314523 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name 11111111111111111111				Signature "On behalf of" 11111111111111111111			
Month Day Year 11 11 11							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name 11111111111111111111							
Signature 11111111111111111111				Month Day Year 11 11 11			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name 11111111111111111111							
Signature 11111111111111111111				Month Day Year 11 11 11			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name 11111111111111111111							
Signature 11111111111111111111				Month Day Year 11 11 11			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314523

Customer Name E2M INC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500596
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# S2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time
In 11/09/2007 08:08:37 Scale
Out 11/09/2007 08:33:38 Scale
Operator TAMMY
Inbound
Gross 67580 lb
Tare 32320 lb
Net 35260 lb
Tons 17.63

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		17.63	Tons				SHE
2 TRI-TRANSPORTATION 100		17.63	Tons				SHE
3 FUEL-Fuel Surcharg 100			%				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature *Danell Sanders*



NON-HAZARDOUS MANIFEST

1000704

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MINNAPOLIS DEFENSE DEPOT 1710 DURN AVENUE MINNAPOLIS MN 55114				A. Manifest Number WMNA 10600597			
4. Generator's Phone 210 639 0718				B. State Generator's ID 7440053			
5. Transporter 1 Company Name Althaus Trucking		6. US EPA ID Number 000111		C. State Transporter's ID			
7. Transporter 2 Company Name O		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TURKCA LANDFILL 6035 BOWDRE ROAD ROCKFORD ILL 61104		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 682 333-2189			
11. Description of Waste Materials				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Misc. Comments
BURIED DRUMS							
WM Profile # 100708215				001	47	400	16
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information							
Truck # T704 Ticket # 314495							
Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION:							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Smith				Signature "On behalf of" [Signature]		Month Day Year 11/03/07	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/03/07	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/03/07	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Tammy Reed				Signature [Signature]		Month Day Year 11/09/07	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314495

Customer Name E2M INC 436 E2M INC 436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600597
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 11/09/2007 05:23:20 Scale1
Out 11/09/2007 05:40:13 Scale1
Operator TAMMY
Inbound Gross 77440 lb
Tare 29640 lb
Net 47800 lb
Tons 23.90

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-100		23.90	Tons				SHE
2 TRT-TRANSPORTATION 100		23.90	Tons				SHE
3 FUEL-Fuel Surcharg 100			x				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

10007061

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM-1

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114		A. Manifest Number WMNA 10600598		
4. Generator's Phone 210 639-0710		B. State Generator's ID		
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID
				F. Transporter's Phone
				G. State Facility's ID
				H. Facility's Phone 652 383-2882
11. Description of Waste Materials		12. Containers No. Type	13. Total Quantity	14. Unit wt/vol
a. BURIED DRUMS WM Profile # 10070245		1	1	1
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information Truck # HFL6 Ticket # 314527 Purchase Order # _____ EMERGENCY CONTACT: _____				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name _____ Signature "On behalf of" _____ Month Day Year _____				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name _____ Signature _____ Month Day Year _____				



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363-2282

Original
Ticket# 314527

Customer Name E2M INC 436 E2M INC 436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600598
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier HUBERT FRANKS LLC HUBERT FRANKS LLC
Vehicle# HF6
Container
Driver
Check#
Billing # 0000435
Gen EPA ID

Volume

	In	Out	Time	Scale	Operator	Inbound	Gross	Tare	Net	Tons
	11/09/2007 08:43:56	11/09/2007 08:56:37	Scale1	Scale1	TAMMY		67640 lb	33020 lb	34620 lb	17.31

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	17.31	Tons				SHE
2 TRT-TRANSPORTATION	100	17.31	Tons				SHE
3 EVL-Env Fee Lg. -	100	1	Load				SHE
4 FUEL-Fuel Surcharg	100	%					SHE

Total Tax
Total Ticket

Driver's Signature

Wade



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 74421 0070813		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MACYS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10000599			
4. Generator's Phone 210 639 9710				B. State Generator's ID 7A/HND53			
5. Transporter 1 Company Name <i>Anthony Tanking</i>		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38854				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone 662 333-2032	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		14. Unit Wt/Vol	
a. BURIED DRUMS						I. Misc. Comments	
WM Profile # 1007081S				201 27 000216			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information							
<i>Truck # T-704</i> <i>Truck # 314516</i> Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION:							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Acorn Smith</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/10/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>		Month Day Year 11/10/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>		Month Day Year 11/10/97	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314516

Customer Name E2MINC_436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600599
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 11/09/2007 07:28:03 Scale1
Out 11/09/2007 07:28:03
Comments
Inbound Gross 74560 lb
Tare 29640 lb
Net 44920 lb
Tons 22.46

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		22.46	Tons				SHE
2 TRT-TRANSPORTATION 100		22.46	Tons				SHE
3 EVL-Env Fee Lg. - 100		1	Load				SHE
4 FUEL-Fuel Surcharg 100		%					SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

1000710
1110001

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No T1614210070570		Manifest Document No.		2. Page 1 of 1			
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600608					
4. Generator's Phone 210 633-0710				B. State Generator's ID TN 0053					
5. Transporter 1 Company Name Resource Transportation Inc				C. State Transporter's ID					
6. US EPA ID Number 1512000102624				D. Transporter's Phone 601-605-7778					
7. Transporter 2 Company Name				E. State Transporter's ID					
8. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204				F. Transporter's Phone					
10. US EPA ID Number				G. State Facility's ID					
				H. Facility's Phone 602 333-7732					
11. Description of Waste Materials		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments	
BURIED DRUMS									
WM Profile # 100708103		00107		001020					
b. WM Profile #									
c. WM Profile #									
d. WM Profile #									
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____					
15. Special Handling Instructions and Additional Information Truck # 06160 Ticket # 314500 Purchase Order # _____ EMERGENCY CONTACT: _____									
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name: Kevin Smith Signature: [Signature] Month Day Year: 11/10/97									
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: Michael L. [Signature] Signature: [Signature] Month Day Year: 11/10/97									
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: _____ Signature: _____ Month Day Year: _____									
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.									
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name: Tommy Ford Signature: [Signature] Month Day Year: 11/10/97									



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314500

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600608
Destination
PO
Profile 100703MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

In 11/09/2007 06:08:10 Scale 80740 lb
Out 11/09/2007 06:08:18 Scale 41760 lb
Net 38980 lb
Tons 19.49

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.49	Tons				SHE
2 TRT-TRANSPORTATION 100		19.49	Tons				SHE
3 LIN-LINERS 100		1	Each				SHE
4 EVL-Env Fee Lg. - 100		1	Load				SHE
5 FUEL-Fuel Surcharg 100		%					SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

01000712

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1								
3. Generator's Name and Mailing Address FEDERAL GOVERNMENT INTERCONTINENTAL 11700 S. AVENUE DEALERS INTL				A. Manifest Number WMNA 10601973										
4. Generator's Phone 602 706-3377				B. State Generator's ID										
5. Transporter 1 Company Name Trans Pacific		6. US EPA ID Number		C. State Transporter's ID										
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 602-601-7778										
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BROADWAY ROAD		10. US EPA ID Number		E. State Transporter's ID										
				F. Transporter's Phone										
				G. State Facility's ID										
				H. Facility's Phone 602 333-3752										
11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments						
a. SOIL		No. Type												
WM Profile # 90041457														
b.														
WM Profile #														
c.														
WM Profile #														
d.														
WM Profile #														
J. Additional Descriptions for Materials Listed Above				K. Disposal Location										
Landfill _____ Solidification _____				Cell _____ Level _____										
Bio Remediation _____				Grd _____										
15. Special Handling Instructions and Additional Information														
Truck # 0216 Ticked & ...														
Purchase Order # _____ EMERGENCY CONTACT: _____														
16. GENERATOR'S CERTIFICATION:														
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.														
Printed/Typed Name					Signature "On behalf of"					Month Day Year				
17. Transporter 1 Acknowledgement of Receipt of Materials														
Printed/Typed Name					Signature					Month Day Year				
18. Transporter 2 Acknowledgement of Receipt of Materials														
Printed/Typed Name					Signature					Month Day Year				
19. Certificate of Final Treatment/Disposal														
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.														
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.														
Printed/Typed Name					Signature					Month Day Year				



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314533

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/09/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10601973
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 11/09/2007 09:22:23 Scale1
Out 11/09/2007 09:22:23
Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		19.47	Tons				SHE
2 TRT-TRANSPORTATION 100		19.47	Tons				SHE
3 LIN-LINERS 100		1	Each				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN42100703710		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10000569			
4. Generator's Phone 210 639-9710				B. State Generator's ID TNH0053			
5. Transporter 1 Company Name Paravia Transportation LLC		6. US EPA ID Number 115K010122624		C. State Transporter's ID		D. Transporter's Phone 661-664-1174	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BORNSVILLE MS 38834				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone 662 363-7282	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		14. Unit Wt/Vol	
a. BURIED DRUMS						I. Misc Comments	
WM Profile # 100700MS				901 91 901020			
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information							
Truck # 0616 Ticket # 314670							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION:							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Frank				Signature "On behalf of" [Signature]		Month Day Year 11/1/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/1/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/1/97	



Tunica Landfill
6035 Eudre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 314670

Customer Name EZINC_436 EZM INC_436
Ticket Date: 11/12/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 100000559
Destination
PO
Profile 1000000000 (WORNED DRUMS)
Generator 101-HEM-HISDEFENSE/DEPOT MEMPHIS DEFENSE DEPOT

Carrier RESOURCE TRNS RESOURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 11/12/2007 08:51:05 Scaled
Out 11/12/2007 08:51:05
Comments

Inbound Gross 77220 1b
Tare 41760 1b
Net 35460 1b
Tons 17.73

WE WILL BE CLOSED NOVEMBER 22ND FOR THANKSGIVING DAY REOPEN 23RD

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS	100	17.73	Tons				SHE
2 TRT-TRANSPORTATION	100	17.73	Tons				SHE
3 LINELINERS	100	1	Each				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

1000716
10001

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN421202050706		Manifest Document No.		2. Page 1 of 2	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600571			
4. Generator's Phone 210 634 0719				B. State Generator's ID TN H60053			
5. Transporter 1 Company Name Kensco Transportation LLC		6. US EPA ID Number MSR10101102611		C. State Transporter's ID		D. Transporter's Phone (601) 611-7171	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone 632 383-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
BURIED DRUMS						14. Unit Wt/Vol	
WM Profile # 100700065				210110176101010		I. Misc. Comments	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Smith</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/15/11	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>		Month Day Year 11/15/11	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>		Month Day Year 11/15/11	

1000719001



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 315033

Customer Name E2M INC 436 E2M INC_436
Ticket Date 11/15/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600571
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Value

Time Scale In Out
11/15/2007 15:32:14 15:32:14
Scale
11/15/2007 15:32:14
Operator FRANCIS
Inbound
Gross 81780 lb
Tare 41760 lb
Net 40020 lb
Tons 20.01

Comments

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		20.01	Tons				SHE
2 TRT-TRANSPORTATION 100		20.01	Tons				SHE
3 LIN-LINERS 100		1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TUN4210570370		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEDICAL DEFENSE DEPT 1716 DUNDY AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600607			
4. Generator's Phone 210 836-9719				B. State Generator's ID TNH053			
5. Transporter 1 Company Name Resound Transportation LLC		6. US EPA ID Number M000000102434		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 601 666 1414			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6935 HOWARD ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
DUMPER DRUMS							
WM Profile # 100708MS		001 01		000030			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TUN 4 0116 TUN 4 315007 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Norm S. Scott				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 11/16/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Norm S. Scott				Signature <i>[Signature]</i>		Month Day Year 11/16/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name Michael J. Smith				Signature <i>[Signature]</i>		Month Day Year 11/16/97	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator, Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis B. Scott				Signature <i>[Signature]</i>		Month Day Year 11/16/97	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 315007

Customer Name E2M INC 436 E2M INC 436
Ticket Date 11/15/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600607
Destination
PO
Carrier RESOURCE TRANS RESOURCE TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 11/15/2007 12:12:57 Scale1
Out 11/15/2007 12:12:57
Comments
Inbound Gross 69000 lb
Tare 41750 lb
Net 27240 lb
Tons 13.62

WE WILL BE CLOSED NOVEMBER 22th FOR THANKSGIVING DAY REOPEN 23rd

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS-	100	13.62	Tons				SHE
2 TRT-TRANSPORTATION	100	13.62	Tons				SHE
3 LIN-LINERS	100	1	Each				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

100.0720001

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No. 100709001		Manifest Document No. 100709001		2. Page 1 of 1			
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600560					
4. Generator's Phone 210 850-9719				B. State Generator's ID TN 0053					
5. Transporter 1 Company Name Resource Transportation LLC				C. State Transporter's ID					
6. US EPA ID Number US R 033102624				D. Transporter's Phone 615 661-7178					
7. Transporter 2 Company Name				E. State Transporter's ID					
8. US EPA ID Number				F. Transporter's Phone					
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 HOWARD ROAD ROBINSONVILLE MS 38864				G. State Facility's ID					
10. US EPA ID Number				H. Facility's Phone 662 363-2282					
11. Description of Waste Materials				12. Containers		13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments	
a. BURIED DRUMS				No.	Type				
WM Profile # 100709001				001	07	00020			
b. WM Profile #									
c. WM Profile #									
d. WM Profile #									
J. Additional Descriptions for Materials Listed Above				K. Disposal Location					
Landfill _____ Solidification _____				Cell _____ Level _____					
Bio Remediation _____				Grid _____					
15. Special Handling Instructions and Additional Information Purchase Order # _____ Ticket # 316584 EMERGENCY CONTACT									
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.									
Printed/Typed Name Kevin Seppach				Signature "On behalf of" [Signature]				Month Day Year 11-17-12	
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name [Signature]				Signature [Signature]				Month Day Year 11-17-12	
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name				Signature				Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.									
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.									
Printed/Typed Name [Signature]				Signature [Signature]				Month Day Year 11-17-12	

1000721001



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316234

Customer Name E2M INC 436 E2M INC_436
Ticket Date 12/03/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600560
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time In 12/03/2007 15:12:45 Scale Scale1
Out 12/03/2007 15:12:45
Operator TAMMY
Inbound Gross 97680 lb
Tare 41760 lb
Net 55920 lb
Tons 27.96

Comments

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS	100	27.96	Tons				SHE
2 TRT-TRANSPORTATION	100	27.96	Tons				SHE
3 EVL-Env Fee Lg.	100	1	Load				SHE
4 FST-FUEL SURCHARGE	100		X				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

WMNA

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 100709MS		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNLAP AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600565			
4. Generator's Phone 210 639-0710				B. State Generator's ID WHL053			
5. Transporter 1 Company Name Source Transportation LLC				6. US EPA ID Number 100709MS		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 641-247-9174	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 652 363-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100709MS				0/0/0/0/0/0/0/0		14. Unit Wt./Vol.	
b. WM Profile #						I. Misc. Comments	
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information A-1 Purchase Order # _____				Ticket # 316181 EMERGENCY CONTACT			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seppach				Signature "On behalf of" _____ Month Day Year 11/1/00			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____				Signature _____ Month Day Year 11/1/00			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____				Signature _____ Month Day Year 11/1/00			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Thomas Ped Signature _____ Month Day Year 11/2/00							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316181

Customer Name E2MINC_436 E2M INC_436
Ticket Date 12/03/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600565
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier
Vehicle# 0616
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

RESOURCE TRANS RESOURCE TRANSPORTION
Volume

Time
In 12/03/2007 11:15:25 Scale
Out 12/03/2007 11:15:25
Comments

Operator
TAMMY
TAMMY
Inbound
Gross 89820 1b
Tare 41760 1b
Net 48060 1b
Tons 24.03

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS-TONS- 100		24.03	Tons				SHE
2 TRT-TRANSPORTATION 100		24.03	Tons				SHE
3 EVL-Env Fee Lg. - 100		1	Load				SHE
4 FUEL-Fuel Surcharg 100		X					SHE

Driver's Signature

Total Tax
Total Ticket



NON-HAZARDOUS MANIFEST

1000724
888001

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TK4210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600572			
4. Generator's Phone 210 638-8719				B. State Generator's ID TNH053			
5. Transporter 1 Company Name Resource Transportation LLC				6. US EPA ID Number MSR0106162624			
7. Transporter 2 Company Name				C. State Transporter's ID			
8. US EPA ID Number				D. Transporter's Phone 601-244-7178			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864				E. State Transporter's ID			
10. US EPA ID Number				F. Transporter's Phone			
11. Description of Waste Materials BURIED DRUMS				G. State Facility's ID			
12. Containers No. Type				13. Total Quantity			
14. Unit Wt./Vol				I. Misc. Comments			
WM Profile # 100706MS				0101 017 001020			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TK# 0616 TK# 316455 Purchase Order # _____				EMERGENCY CONTACT:			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seavak				Signature "On behalf of" _____ Month Day Year 1/20/07			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Michael E. Lander				Signature _____ Month Day Year 1/20/07			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature _____ Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Francis Boyce							
Signature Francis Boyce				Month Day Year 1/20/07			

CWM - NHM - 1 - 5/97

#1 - TREATMENT, STORAGE, DISPOSAL FACILITY COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316455

Customer Name EZM INC_436 EZM INC_436
Ticket Date 12/05/2007
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10500572
Manifest
Destination
Profile 103/00MS (BURNED DRUMS)
Generator 101-NECHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier RESOURCE TRANS RESOURC TRANSPORTION
Vehicle# 0616
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 12/05/2007 15:10:29 Scale1
Out 12/05/2007 15:10:29
Comments
Inbound Gross 74900 lb
Tare 41700 lb
Net 33040 lb
Tons 16.52

CLOSED Dec.24th at 12:00 noon & all day Dec.25th. Reopen Dec. 26th.

Product	LD%	Qty	Unit	Rate	Tax	Amount	Origin
1 BURNED DRUMS-TONS- 100		16.52	Tons				SAE
2 TRT-TRANSPORTATION 100		16.52	Tons				SAE
3 FUEL-Fuel Surcharg 100			%				
4 EVI-Env Fee Lg. -- 100			Load				

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

10007261

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 1912112017051201		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600576			
4. Generator's Phone 210 632-0719				B. State Generator's ID TN 46053			
5. Transporter 1 Company Name Hillman		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD COVINGTON LA MS 38684				10. US EPA ID Number		G. State Facility's ID	
						H. Facility's Phone 862 363-2242	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. RUMMED DRUMS				600 10T 0600036		14. Unit Wt/Vol	
WM Profile # 100700366						I. Misc. Comments	
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT _____				22.5 Tons			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seabach				Signature "On behalf of" [Signature] Month Day Year 06/06/08			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kevin W. Seabach				Signature [Signature] Month Day Year 06/06/08			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature [Signature] Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Ernest [Signature] Signature [Signature] Month Day Year 06/06/08							



Tunica Landfill
6035 Bowline Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318254

Customer Name E2MNC_436 E2M INC_436
Ticket Date 01/03/2000
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route#
State Waste Code
Manifest 10600576
Destination
FC

Profile 100790MS (BURNED DRUMS)
Generator 181-103441SDENFENSE/OT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/03/2000 15:33:55 Scale1
Out 01/03/2000 15:33:55
Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Rty	UDM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		22.35	Tons				SHF
2 TRI-TRANSPORTATION 100		22.35	Tons				SHF

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWMA

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <i>TN#210070215</i>		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10640577	
4. Generator's Phone 210 639-0710						B. State Generator's ID <i>TN#0057</i>	
5. Transporter 1 Company Name <i>Mathisius</i>				8. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 632 333-2232	
11. Description of Waste Materials BURIED DRUMS WM Profile # 10070215						12. Containers	
						No. Type	
						13. Total Quantity	
						14. Unit Wt/Vol	
						I. Misc. Comments	
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information <i>TH 51</i> <i>TJ# 313252</i> <i>213270</i> Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin Seolah</i> Signature "On behalf of" <i>[Signature]</i> Month Day Year <i>01 05 02</i>							
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: <i>[Signature]</i> Signature _____ Month Day Year _____						
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____						
	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.						
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name <i>Francis Boyd</i> Signature <i>[Signature]</i> Month Day Year <i>01 05 02</i>						

10000729



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318252

Customer Name EZM INC 436 E2M INC 436
Ticket Date 01/03/2008
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code
Manifest 10602577
Destination
PO

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# 501
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time	Scale	Operator	Inbound	Gross	
In 01/03/2008 15:25:05	Scale1	FRANCIS		Tare	74420 lb
Out 01/03/2008 15:25:05		FRANCIS		Net	31760 lb
				Tons	42660 lb
					21.33

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		21.33	Tons				SHE
2 TRT-TRANSPORTATION 100		21.33	Tons				SHE

Total Tax
Total Ticket

Davis Hand

Driver's Signature



NON-HAZARDOUS MANIFEST

1000730
1870001

Please print or type. (Form designed for use on site (12-ply) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1710 BURN AVENUE MEMPHIS TN 38114		A. Manifest Number WMNA 10600578		
4. Generator's Phone 210 638-9719		B. State Generator's ID TN1003		
5. Transporter 1 Company Name Waste Management		C. State Transporter's ID		
6. US EPA ID Number		D. Transporter's Phone		
7. Transporter 2 Company Name		E. State Transporter's ID		
8. US EPA ID Number		F. Transporter's Phone		
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOHNSDALE MS 38824		G. State Facility's ID		
10. US EPA ID Number		H. Facility's Phone 662 363-2282		
11. Description of Waste Materials BURIED DRUMS		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
WM Profile # 100708245		001	1	1
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptors for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information 7-11-5710-20 28.42 TON EMERGENCY CONTACT:				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name Kevin Spence		Signature "On behalf of" <i>[Signature]</i>		Month Day Year 06/13/06
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Waste Management		Signature <i>[Signature]</i>		Month Day Year 06/13/06
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Kevin Spence		Signature <i>[Signature]</i>		Month Day Year 06/13/06



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318250

Customer Name E2M INC 436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600578
Manifest
Destination
PO
Profile 102709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/03/2008 15:19:38 Scale1
Out 01/03/2008 15:19:38
Gross 90640 lb
Tare 33840 lb
Net 56840 lb
Tons 28.42

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		28.42	Tons				SEE
2 TRI-TRANSPORTATION 100		28.42	Tons				SEE

DLW

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

10007321

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 4
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 9716 DIXIE AVENUE MEMPHIS TN 38114		4. Generator's Phone 210 639-9710		A. Manifest Number WMNA 10600579
5. Transporter 1 Company Name Waste Management		6. US EPA ID Number		B. State Generator's ID TN 106053
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MC 28664		10. US EPA ID Number		D. Transporter's Phone
11. Description of Waste Materials BURIED DRUMS		12. Containers No. Type		E. State Transporter's ID
WM Profile # 100709M5		2011-IT 01013K		F. Transporter's Phone
b. WM Profile #				G. State Facility's ID
c. WM Profile #				H. Facility's Phone 662 383-2282
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information Purchase Order # 1211 46" PTO 74" 5102288 25.59 TONS EMERGENCY CONTACT.				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin Seibert</i> Signature "On behalf of" <i>[Signature]</i> Month Day Year 01 05 08				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month Day Year 01 05 08				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month Day Year 01 05 08				

1000733



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2202

Original
Ticket# 318249

Customer Name ERMING_436 ERM INC_436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10608579
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

From 104720MS (BURNED DRUMS)
To 104720MS (BURNED DRUMS) DEFENSE DEPOT

Date 01/03/2008 15:00:00
In 01/03/2008 15:00:00
Out 01/03/2008 15:00:00
Comments
Inbound Gross 80720 lb
Tare 29640 lb
Net 51080 lb
Tons 25.54

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		25.54	Tons				SH-E
2 INT-TRANSPORTATION 100		25.54	Tons				SH-E

Total Tax
Total Ticket

Driver's Signature



10007351

Corrected Copy
from Ticket # 318237

Tonuca Landfill
6035 Bourdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318315

Customer Name EEMING_436 EEM INC_436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10602500
Destination
PO
Profile 100783MS (BURIED DRMS)
Generator 161-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 01/03/2008 14:24:13 Scale
Out 01/03/2008 14:24:13
Comments REPLACEMENT TICKET FOR TICKET # 318237

Inbound
Gross 74640 lb
Tare 29640 lb
Net 45000 lb
Tons 22.50

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRMS & INC 100		22.50	Tons				SHE
2 TRT-TRANSPORTATION 100		22.50	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000736



Tonica Landfill
6035 Louvre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Wrong Bill To Should be E2M

Customer Name: MATTHEW STRICKLIN MATTHEW STRICKLIN
Ticket Type: Credit Account
Manual Ticket#: 101/03/2208
Hauling Ticket#: 101/03/2208
Route: 101/03/2208
State Waste Code: 10600500
Manifest: 10600500
Destination: PG
Carrier: MATTHEW STRICKLIN STRICKLIN TRUCKING
Vehicle#: T104
Container: Volume
Driver: 2208
Checked: 2208
Billing #: 2208
Gen EPA ID: 2208

Original
Ticket# 318237

Void

Profile # 100709MS Memphis Defense Depot

Time: In 01/03/2008 14:24:13 Scale: 74840 lb
Out 01/03/2008 14:24:13 Scale: 29640 lb
Comments: Net 45000 lb
Tons 22.50

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1	MST-MSW / TON	100	22.50	Tons	29.40	4661.50	GHE

Total Tax
Total Ticket \$661.50

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CAR

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 4
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 GUNN AVENUE MEMPHIS TN 38114		4. Generator's Phone 240 639-0718		A. Manifest Number WMNA 10600581
5. Transporter 1 Company Name Matthews		6. US EPA ID Number		B. State Generator's ID TN H-053
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BOWENVILLE MS 38824		10. US EPA ID Number		D. Transporter's Phone
11. Description of Waste Materials BURIED DRUMS		12. Containers No. Type		E. State Transporter's ID
WM Profile # 100702MS		001 01T 0010126		F. Transporter's Phone
b. WM Profile #				G. State Facility's ID
c. WM Profile #				H. Facility's Phone 662 383-2282
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information TR # TTD-2 Tot # 318233 Tons 27.12 Purchase Order # _____ EMERGENCY CONTACT: _____				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name: Kevin Sealak		Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/10/08
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Franklin [Signature] Signature <i>[Signature]</i> Month Day Year 10/10/08				



Tunica Landfill
6035 Rowdree Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318239

Customer Name E2M INC_436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600501
Manifest
Destination
PO
Carrier MATTHEW STRICKLIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100700MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT

Time
In 01/03/2008 14:30:59 Scale1
Out 01/03/2008 14:54:12 Scale1
Comments
Inbound Gross 83020 lb
Tare 28780 lb
Net 54240 lb
Tons 27.12

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		27.12	Tons				SHE
2 TRT-TRANSPORTATION 100		27.12	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

2020201



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TUNICA LANDFILL		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600582			
4. Generator's Phone 210 639-8710				B. State Generator's ID Tennessee			
5. Transporter 1 Company Name Methuen		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864				10. US EPA ID Number		G. State Facility's ID	
11. Description of Waste Materials				12. Containers No.		13. Total Quantity	
a. BURIED DRUMS				Type		14. Unit Wt/Vol	
WM Profile # 100700MS				601 01 000136		I. Misc. Comments	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill Solidification				Cell Level			
Bio Remediation				Grid			
15. Special Handling Instructions and Additional Information				30.97 T22			
Purchase Order #				EMERGENCY CONTACT: 238			
16. GENERATOR'S CERTIFICATION							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Frank		Signature "On behalf of"		Month, Day Year			
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name		Signature		Month Day Year			



Tunica Landfill
6435 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318238

Customer Name E2MIND_436 EDM INC_436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600502
Manifest Destination
PO
Profile 100709MS (BURIED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHERN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen ED# ID

Time In 01/03/2008 14:27:37 Scale Scale1
Out 01/03/2008 14:27:37
Comments

Inbound Gross 90300 lb
Tare 28400 lb
Net 61900 lb
Tons 30.95

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		30.95	Tons				SHF
2 TRT-TRANSPORTATION 100		30.95	Tons				SHF

Total Tax
Total Ticket

Driver's Signature

1000741



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T4921007P570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600583	
4. Generator's Phone 210 630-0719						B. State Generator's ID TN 40 057	
5. Transporter 1 Company Name Matheson			6. US EPA ID Number			C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38861			10. US EPA ID Number			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100709MS				001 017		0012516	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Truck # S3 Ticket 3180210 24.89 - Tons Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kenn Sproul				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 01/03/02	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Kevin Green				Signature <i>[Signature]</i>		Month Day Year 01/03/02	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Thomson				Signature <i>[Signature]</i>		Month Day Year 01/03/02	

CWM - NHM - 1-5-97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6835 Rowdree Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318226

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10000583
Destination
NO
Profile 100700MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/03/2008 13:35:24 Scale1
Out 01/03/2008 13:35:24
Comments
Inbound Gross 82220 1b
Tare 32440 1b
Net 49780 1b
Tons 24.89

CLOSE AT 2:00 PM ON JAN. 21ST MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		24.89	Tons				SE
2 TRI-TRANSPORTATION 100		24.89	Tons				SE

Total Tax
Total Ticket

Driver's Signature

Kevin Gregory



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 716421100705710		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600584			
4. Generator's Phone 210 639-0718				B. State Generator's ID TN H0053			
5. Transporter 1 Company Name McGraw-Hill		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 363-2282	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
a. BURIED DRUMS				No. Type		14. Unit Wt./Vol.	
WM Profile # 100708MS				dcb1 dcb12b			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TK # 52 TK # 318230 29.66 TONS				EMERGENCY CONTACT:			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Smith				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/16/13	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Thomas K. Boyd				Signature <i>[Signature]</i>		Month Day Year 10/16/13	



Tunica Landfill
6935 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2202

Original
Ticket# 318230

Customer Name ERMING_436 E2M INC_436
Ticket Date 01/03/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600504
Manifest
Destination
PO
Profile 100703MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S2
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 01/03/2008 13:50:20 Scale
Out 01/03/2008 13:50:20 Scale1
Comments

Inbound
Gross 91640 lb
Tare 32320 lb
Net 59320 lb
Tons 29.66

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.66	Tons				SHE
2 TRT-TRANSPORTATION 100		29.66	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

Donald Sanders



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 714021007057P		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DIXIE AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600585	
4. Generator's Phone 210 639-9719						B. State Generator's ID TNAD053	
5. Transporter 1 Company Name Mathews / Ross				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						Type	14. Unit Wt/Vol
WM Profile # 100708MS						0101	01010126
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information Purchase Order # 2701 Tons 25.87 + 1/2 RTO! Tons 3182-19 EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seale				Signature On behalf of [Signature]		Month Day Year 11/11/11	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/11/11	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/11/11	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/11/11	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318219

Customer Name E2HINC_436 E2H INC_436

Ticket# Date 01/03/2008

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10600585

Destination

EQ

Profile 100709MS (RUMED DRUMS)

Generator 101-WEITHISIDEPENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKLIN STRAYHORN TRUCKING

Vehicle# RT01

Container

Driver

Check#

Billing # 00000436

Gen EPA ID

Volume

Time

In 01/03/2008 13:08:39

Out 01/03/2008 13:00:39

Scale

Scale1

Operator

FRANCIS

FRANCIS

Inbound

Gross

Tare

Net

Tons

61300 lb

25640 lb

51740 lb

25.87

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.87	Tons				SE
2 TRF-TRANSPORTATION 100		25.87	Tons				SE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

00000

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 11111111111111111111		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38116						A. Manifest Number WMNA 10600551	
4. Generator's Phone 210 639-9710						B. State Generator's ID 04100	
5. Transporter 1 Company Name Waste Management				6. US EPA ID Number 11111111111111111111		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number 11111111111111111111		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38854				10. US EPA ID Number 11111111111111111111		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 10070MAS						221	27 000000
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Track # 1102 Ticket # 318314 Tons 2740							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin S. Smith				Signature "On behalf of" [Signature]		Month Day Year 06 01 97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name AP Smith				Signature [Signature]		Month Day Year 06 01 97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 06 01 97	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310316

Customer Name ERMING 435 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600531
Destination PG
Profile 10070276 (PULPED DRUMS)
Generator 181-MEMPHISDEFENSEDEPT MEMPHIS DEFENSE DEPT

Carrier MATTHEW STRICKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 01/04/2008 09:41:58 Scale
Out 01/04/2008 09:41:58
Comments

Inbound
Gross 83440 lb
Tare 28640 lb
Net 54800 lb
Tons 27.40

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1	PULPED DRUMS & INC 100	27.40	Tons				SEE
2	TRI-TRANSPORTATION 100	27.40	Tons				SEE

Total Tax
Total Ticket

Driver Signature

[Signature]



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 100749		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600535			
4. Generator's Phone 210 634-8719				B. State Generator's ID			
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE TN 38864		10. US EPA ID Number		E. State Transporter's ID			
11. Description of Waste Materials BURIED DRUMS		12. Containers No.		13. Total Quantity		14. Unit Wt/Vol	
WM Profile # 100700815		2021		10		10	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Truck # 7704 Ticket # 318286 Tons 29.50 Purchase Order # EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seale				Signature "On behalf of"		Month Day Year 10/1/99	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year 10/1/99	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year 10/1/99	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name Kevin Seale				Signature		Month Day Year 10/1/99	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318286

Customer Name ERM INC 436 EZM INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500555
Destination
MO
Profile 100703MS (BURNED DRUMS)
Generator 181-METCHIS DEFENSE DEPOT (METCHIS DEFENSE DEPOT)

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# T104
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 01/04/2008 08:18:10 Scale
Out 01/04/2008 08:18:10 Scale
Comments

Inbound Gross 89640 1b
Tare 29640 1b
Net 59000 1b
Tons 29.50

CLOSE AT 2:00 PM ON JAN. 21ST MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		29.50	Tons				SHE
2 TWT-TRANSPORTATION 100		29.50	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 111101070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600556	
4. Generator's Phone 210 639-8710						B. State Generator's ID 111105	
5. Transporter 1 Company Name			6. US EPA ID Number			C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864			10. US EPA ID Number			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 393-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100706PAS						111107	1111076
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information Truck # 33 Ticket # 313293 Tons 19.70 Purchase Order # EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Gregory				Signature "On behalf of" [Signature]		Month Day Year 11/14/05	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Kevin Gregory				Signature [Signature]		Month Day Year 11/14/05	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/14/05	



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 1000753		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600557	
4. Generator's Phone 210 639-0710						B. State Generator's ID TN 000000	
5. Transporter 1 Company Name				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOHNSONVILLE MS 38824				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 682 363-2732	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type		13. Total Quantity	
WM Profile # 100702045				100 215		1000000	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill Solidification Bio Remediation						K. Disposal Location Cell Level Grid	
15. Special Handling Instructions and Additional Information Truck # 5702 Ticket # 318295 Tonic 30.30 Purchase Order # EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kerry Stoltz				Signature "On behalf of" [Signature]		Month Day Year 01/04/05	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name DANN V. [Signature] Signature [Signature] Month Day Year 11/11/05							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day Year							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Tammy Red Signature [Signature] Month Day Year 01/04/05							



Tunica Landfill
6035 Roadway Rd
Robinsonville, MS, 38684
Ph: 662 363 2282

Original
Ticket# 318295

Customer Name EZHINC_436 EZM INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
PG
Profile
Generator
Carrier
Vehicle#
Container
Driver
Check#
Billing #
Gen EPA ID

10600557

100709MS (BURNED DRUMS)

181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time
In 01/04/2008 08:46:20 Scale1
Out 01/04/2008 09:46:20
Operator
TATMY
TATMY
Inbound
Gross
Tare
Net
Tons
94400 lb
33040 lb
60640 lb
30.32

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		30.32	Tons				SE
2 TRI-TRANSPORTATION 100		30.32	Tons				SE

DdW

Total Tax
Total Ticket

Driver's Signature

1000755



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 100703413		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600558	
4. Generator's Phone 210 630-8710						B. State Generator's ID TN 10075	
5. Transporter 1 Company Name A. H. T. Co.				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOILINGSPRINGLE MS 38664				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100703413						001	07000003
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information Purchase Order # 1-701 Ticket # 318285 Tons 25.40 EMERGENCY CONTACT:							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seale				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/10/08	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 10/10/08	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 10/10/08	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowline Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318285

Customer Name: ERMINE 436 E2M INC_436
Ticket Date: 01/04/2008
Payment Type: Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest: 100200558
Destination
PO
Profile: 100700MS (BURNED DRUMS)
Generator: 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier: MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In: 01/04/2008 08:07:22
Out: 01/04/2008 09:07:22
Comments

Scale:
Scales

Operator:
TAMMY

Inbound

Gross: 80440 lb
Tare: 23640 lb
Net: 56800 lb
Tons: 25.40

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		25.40	Tons				SHE
2 TRT-TRANSPORTATION 100		25.40	Tons				SHE

[Signature]

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114		4. Generator's Phone 210 639 9710		A. Manifest Number WMNA 19600559
5. Transporter 1 Company Name MILLER		6. US EPA ID Number		B. State Generator's ID 141053
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 5035 BOWDRE ROAD ROBINSON IL 62450		10. US EPA ID Number		D. Transporter's Phone
				E. State Transporter's ID
				F. Transporter's Phone
				G. State Facility's ID
				H. Facility's Phone 662 363-2282
11. Description of Waste Materials		12. Containers	13. Total Quantity	14. Unit wt/vol
a. BURIED DRUMS		No.	Type	Misc. Comments
WM Profile # 100700MS				
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above		K. Disposal Location		
Landfill _____ Solidification _____		Cell _____ Level _____		
Bio Remediation _____		Grid _____		
15. Special Handling Instructions and Additional Information Truck # T702 Ticket # 318283 Tons 24.40 Purchase Order # _____ EMERGENCY CONTACT _____				
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kim Beach Signature "On behalf of" _____ Month Day Year 10/10/10				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Kim Beach Signature _____ Month Day Year 10/10/10				



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318283

Customer Name EEMINC_436 E2M INC_436
Ticket Date 01/04/2008

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10552539

Destination

PO

Profile 100702MS CRUMED DRUMS

Generator 181-KENTHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time

In 01/04/2008 07:56:17

Out 01/04/2008 00:03:03

Comments

Scale

Scales

Scales

Operator

TAMMY

TAMMY

Inbound

Gross

Tare

Net

Tons

77440 1b

28640 1b

48800 1b

24.40

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.40	Tons				SHE
2 TRT-TRANSPORTATION 100		24.40	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

403W14

1000758

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. T 101701 1015 701		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address NEWARK'S DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600573			
4. Generator's Phone 210 629-9719				B. State Generator's ID TWHW053			
5. Transporter 1 Company Name M. H. ...		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 383-2082			
11. Description of Waste Materials				12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
a. BURIED DRUMS WM Profile # 100709MS				0011	01T	0101216	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grd _____			
15. Special Handling Instructions and Additional Information Truck # 7701 Ticket # 318080 Tons 26.86 Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin S. ...				Signature "On behalf of"		Month Day Year 01/04/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name T. ...				Signature		Month Day Year 01/04/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator, Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Dorothy Reed				Signature		Month Day Year 01/04/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2292

Original
Ticket# 318280

Customer Name E2TINC_435 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500573
Destination
PO
Profile 103702NS (BURNED DRUMS)
Generator 191-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/04/2008 07:47:11 Scaled
Out 01/04/2008 07:47:11
Comments

Inbound Gross 82120 lb
Tare 28480 lb
Net 53720 lb
Tons 26.86

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Gty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 103		26.86	Tons				SHE
2 TNT-TRANSPORTATION 103		26.86	Tons				SHE

Total Tax
Total Ticket

[Signature]

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CYAN

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114		4. Generator's Phone 210 839-8719		A. Manifest Number WMNA 10600574
5. Transporter 1 Company Name Waste Management		6. US EPA ID Number		B. State Generator's ID TNHW053
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		D. Transporter's Phone
11. Description of Waste Materials 8 BURIED DRUMS		12. Containers No. Type		E. State Transporter's ID
WM Profile # 100700MS		0611 DT 010136		F. Transporter's Phone
b. WM Profile #				G. State Facility's ID
c. WM Profile #				H. Facility's Phone 662 333-2782
d. WM Profile #				I. Misc. Comments
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information Truck # 52 Ticket # 318287 Tons 17.90 Purchase Order # _____ EMERGENCY CONTACT: _____				
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin S. Smith Signature "On behalf of" [Signature] Month Day Year 10/10/98				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____			
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____			
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.			
	20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name Barry Ford Signature [Signature] Month Day Year 10/10/98			



Tunica Landfill
6935 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318287

Customer Name E2MNC 426 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600574
Destination
Profile 100709MS (BURIED DRUMS)
Generator 101-WETCHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# 52
Container
Driver
Check#
Billing # 0000436
Gen EPA ID
Time
In 01/04/2008 08:24:52 Scale
Out 01/04/2008 00:24:52
Comments

Inbound
Operator
TAMMY
TAMMY
Gross 68120 lb
Tare 32320 lb
Net 35800 lb
Tons 17.90

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		17.90	Tons				SHE
2 TRT-TRANSPORTATION 100		17.90	Tons				SHE

David Sanders

Driver's Signature

Total Tax
Total Ticket



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4211007015701		Manifest Document No.		2. Page 1 of 1		
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600575				
4. Generator's Phone 210 639-0719				B. State Generator's ID Tennessee				
5. Transporter 1 Company Name Mr. H. Jones		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 363-2282		
11. Description of Waste Materials BURIED DRUMS				12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Misc Comments
WM Profile # 100709MS				051	9T	001036		
b. WM Profile #								
c. WM Profile #								
d. WM Profile #								
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____				
15. Special Handling Instructions and Additional Information Truck # RTO2 Ticket # 318243 Tons 21.33 Purchase Order # _____ EMERGENCY CONTACT: _____								
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin Jones</i> Signature "On behalf of" <i>[Signature]</i> Month Day Year 10/1/99								
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____								
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____								
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.								
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>Tommy R. [Signature]</i> Signature <i>[Signature]</i> Month Day Year 10/1/99								



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318273

Customer Name EDWIN INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10500575
Destination
Profile 100709MS (RUMED DRUMS)
Generator 181-KECHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW TRUCKIN STRAYHORN TRUCKING
Vehicle# RT62
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 01/04/2008 07:21:50 Scale
Out 01/04/2008 07:21:50
Comments

Operator
TAMMY
TAMMY
Gross 73220 lb
Tare 30550 lb
Net 42660 lb
Tons 21.33

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		21.33	Tons				SFE
2 TNT-TRANSPORTATION 100		21.33	Tons				SFE

97.8

Total Tax
Total Ticket



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 71114211001705710		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600586							
4. Generator's Phone 210 638-8710				B. State Generator's ID TNHWS3							
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35264		10. US EPA ID Number		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 632 363-2262							
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity		14. Unit Wt./Vol		15. Misc. Comments	
a. BURIED DRUMS											
WM Profile # 100700245				0101 01		01010124					
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: 318313				34.5178MS							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name Kevin J. Folsom				Signature "On behalf of" [Signature]				Month Day Year 10/10/08			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name E. M. P. [Signature]				Signature [Signature]				Month Day Year 11/14/08			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest											
Printed/Typed Name				Signature				Month Day Year			



Tunica Landfill
6835 Bowdye Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318313

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10000506
Destination
PO
Profile 100702MS (RUNNED DRUMS)
Generator 101-KETCHISDEFENSEDEPOT KETCHIS DEFENSE DEPOT

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time In 01/04/2008 09:32:24 Scale Scale1 Operator FRONZIS
Out 01/04/2008 09:32:24 Gross 97420 lb
Tare 28400 lb
Net 69020 lb
Tons 34.51

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 BLKIED DRUMS & INC 100		34.51	Tons				SHE
2 INT-TRANSPORTATION 100		34.51	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

403W/M

1000766



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <i>TM42110070570</i>		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621573	
4. Generator's Phone 210 639-6719						B. State Generator's ID TX/HW053	
5. Transporter 1 Company Name <i>Matthews Trucking</i>				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6135 BONDRE ROAD OSHAUSVILLE MS 38864				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							14. Unit Wt./Vol
WM Profile # 100709MS						<i>001</i>	<i>010000000</i>
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____, Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information <i>TR# R702 Ticket # 3183009 TONS 24.41</i> Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Smith</i>				Signature "On behalf of" <i>Kevin Smith</i>		Month Day Year <i>12/10/05</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Matthews Trucking</i>				Signature <i>Matthews Trucking</i>		Month Day Year ____	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year ____	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Kevin Smith</i>				Signature <i>Kevin Smith</i>		Month Day Year <i>11/14/05</i>	



Tunica Landfill
6935 Roadre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318387

Customer Name EBRINC_436 EBN INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10021573
Manifest
Destination
FO
Profile 10270876 (BURIED DRUMS)
Generator 181-REPCHEIDENSEDEPOT REMAINS DEFENSE DEPT

Carrier MATTHESTRUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 62204036
Gen EPA ID

Time Scale
In 01/04/2008 09:14:52 Scale1
Out 01/04/2008 09:14:52
Comments

Inbound Gross 79380 lb
Tare 38560 lb
Net 40820 lb
Tons 24.41

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.41	Tons				SHE
2 TMT-TRANSPORTATION 100		24.41	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWMA

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TW421100705701		Manifest Document No.		2. Page 1 of 4									
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621574											
				B. State Generator's ID TN HWOSS											
4. Generator's Phone 210 630-0710				C. State Transporter's ID											
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		D. Transporter's Phone											
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID											
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		F. Transporter's Phone											
				G. State Facility's ID											
				H. Facility's Phone 662 363-2282											
11. Description of Waste Materials BURIED DRUMS				12. Containers		13. Total Quantity		14. Unit Wt./Vol.		15. Misc. Comments					
				No. Type											
				WM Profile # 100700MS		010101T		01010216							
				WM Profile #											
				WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____											
				15. Special Handling Instructions and Additional Information TR# 7704 Ticket 318322 Tons 19.87											
				Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.															
Printed/Typed Name NEW SCORCH				Signature "On behalf of" 				Month Day Year 11 14 08							
17. Transporter 1 Acknowledgement of Receipt of Materials															
Printed/Typed Name ...				Signature 				Month Day Year 11 14 08							
18. Transporter 2 Acknowledgement of Receipt of Materials															
Printed/Typed Name				Signature				Month Day Year							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.															
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.															
Printed/Typed Name Tommy Red				Signature 				Month Day Year 11 14 08							



Tunica Landfill
6235 Boardre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318322

Customer Name E2HINC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 18621574
Manifest Destination
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/04/2008 10:12:07 Scaled
Out 01/04/2008 10:12:07
Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 180		19.87	Tons				SHE
2 TRJ-TRANSPORTATION 180		19.87	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

CR-2

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 7741210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10821575			
4. Generator's Phone 210 630 9719				B. State Generator's ID TNH0053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS							
WM Profile # 108709MS				30 / 21		900216	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ B or Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR # 52 Tick # 318326 To: 11/6/74 Purchase Order # EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Hein Seasholtz				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10 11 73	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name James Sanders				Signature <i>[Signature]</i>		Month Day Year 10 11 73	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Tommy Reed				Signature <i>[Signature]</i>		Month Day Year 11 4 74	



Tunica Landfill
6235 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318326

Customer Name EZMIND_436 EZM INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10521575
Destination
Profile 100709MS (BURNED DRUMS)
Generator 181-VENTHISDEFENSE/DEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/04/2008 10:30:50 Scaled
Out 01/04/2008 10:30:50
Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LOS	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		16.74	Tons				SHE
2 TRT-TRANSPORTATION 100		16.74	Tons				SHE

Total Tax
Total Ticket

Driver Signature *Daniel Spauld*

1000773



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 100709MS		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621576			
4. Generator's Phone 210 638-9710				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOONVILLE MO 64604		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 652 383-2282			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS							
WM Profile # 100709MS				0011		0.0026	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TR# RT02 Ticket 318353 Tons 27.84							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seash				Signature "On behalf of" [Signature]		Month Day Year 10/10/18	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name ARIEL BOWEN				Signature [Signature]		Month Day Year 10/10/18	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Tommy Reed				Signature [Signature]		Month Day Year 11/14/18	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Roadre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318353

Customer Name E2M INC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621576
Manifest Destination
Profile 10370976 (BURIED DRUMS)
Generator 181-10370976 DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/04/2008 11:45:51 Scale1
Out 01/04/2008 11:45:51
Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.64	Tons				SHL
2 TRT-TRANSPORTATION 100		27.84	Tons				SHL

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TM4210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621577			
4. Generator's Phone 210 632-0719				B. State Generator's ID TMHW053			
5. Transporter 1 Company Name Matthews trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38834		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 682 383-2222	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				WM Profile # 100702MS		14. Unit Wt./Vol. 001 DT 0100216	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TK # 51 22.72 TONS TK # 318321 EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Stobak				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 01/01/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Matthews				Signature <i>[Signature]</i>		Month Day Year 01/01/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis R. [Signature]				Signature <i>[Signature]</i>		Month Day Year 01/01/98	



Tunica Landfill
6035 Bowdrie Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318321

Customer Name E2MNC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621577
Destination
PG
Profile 103703MS (BLIND DRUMS)
Generator 181-10MTH15DEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# 901
Container
Driver
Checked
Billing # 00000436
Gen EPA ID

Time Scale
In 01/04/2008 10:05:41 Scale1
Out 01/04/2008 10:06:41
Comments
Gross 77200 lb
Tare 31760 lb
Net 45440 lb
Tons 22.72

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		22.72	Tons				SHE
2 TRT-TRANSPORTATION 100		22.72	Tons				SHE

David G. Hand

Driver's Signature

403VM

Total Tax
Total Ticket

1000776

1000777



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 104210070570		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621578	
4. Generator's Phone 210 633-9710						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TURCKA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35234				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 832 333-2782	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100703MS						2011	21010216
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR# T704 Ticket 318351 TONS 31.69 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seaver				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/10/18	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				Signature _____ Month Day Year _____		
	Printed/Typed Name _____				Signature _____ Month Day Year _____		
FACILITY	18. Transporter 2 Acknowledgement of Receipt of Materials				Signature _____ Month Day Year _____		
	Printed/Typed Name _____				Signature _____ Month Day Year _____		
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Tammy Lee				Signature <i>[Signature]</i>		Month Day Year 11/18/18	



Tunica Landfill
6835 Bowdye Rd
Robinsonville, MS, 386 34
Ph: 662 363 2282

Customer
Telephone 310357

Customer Name ERMING 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code
Manifest 10621578
Destination
PO

Profile 100702MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/04/2008 12:10:10 Scale1
Out 01/04/2008 12:10:10
Comments

Operator Inbound Gross
francis
francis
Tare
Net
Tons
31.69

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		31.69	Tons				SHE
2 TRT-TRANSPORTATION 100		31.69	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No. 104210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621579	
4. Generator's Phone 210 639-9712						B. State Generator's ID TN HW053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 800 363-2782	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100702215						0101 OT 0100126	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TL # 52 Tst # 318360 Purchase Order # _____ EMERGENCY CONTACT						22.74 TONS	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seaver				Signature *On behalf of <i>[Signature]</i>		Month Day Year 10/10/08	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Lance Seaver				Signature Lance Seaver		Month Day Year 10/10/08	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis Boyd				Signature Francis Boyd		Month Day Year 11/10/08	



Tunica Landfill
6035 Boxline Rd
Robinsonville, MS, 38654
Ph: 662 363 2282

Original
Ticket# 318360

Customer Name EZM INC. 436 E2M INC. 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10221579
Manifest
Destination
Profile 10076876 (BURNED DRUMS)
Generator 181-WECHISDEFENSE/NOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWS TRUCKIN STRAYHORN TRUCKING
Vehicle# S2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID
Operator francis
Inbound
Gross 77800 lb
Tare 32320 lb
Net 45480 lb
Tons 22.74

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		22.74	Tons				S-E
2 TRJ-TRANSPORTATION 100		22.74	Tons				S-E

Total Tax
Total Ticket

Driver's Signature

Darrell Sanders



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <i>TN4210070570</i>		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621581							
4. Generator's Phone 210 630-0710				B. State Generator's ID <i>TNHW053</i>							
5. Transporter 1 Company Name <i>Matthews Trucking</i>		6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone <i>901 383-2700</i>							
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Misc. Comments	
a. BURIED DRUMS											
WM Profile # 100702MS				<i>01010T</i>		<i>001026</i>					
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information <i>TK # TT02</i> <i>TCT # 318414</i> <i>20.30 Tons</i> Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name <i>Kevin Smith</i>				Signature <i>[Signature]</i>				Month Day Year <i>10/10/10</i>			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>				Month Day Year <i>10/10/10</i>			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest											
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>				Month Day Year <i>10/10/10</i>			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318414

Customer Name ERM INC 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621581
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHESTRUCKIN STRAYHORN TRUCKING
Vehicle# IT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/04/2008 15:18:05 Scale1
Out 01/04/2008 15:18:05
Comments
Inbound Gross 63240 lb
Tare 28640 lb
Net 40600 lb
Tons 20.30

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		20.30	Tons				SHE
2 TRT-TRANSPORTATION 100		20.30	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

[Signature]



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TW42100701570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621582	
4. Generator's Phone 210 630-9719						B. State Generator's ID TW42100701570	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM MS 38204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 682 383-2282	
11. Description of Waste Materials						12. Containers	
						No. Type	
a. BURIED DRUMS						13. Total Quantity	
WM Profile # 100709MS						14. Unit Wt/Vol	
b. WM Profile #						Misc. Comments	
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification on _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TRUCK TOX TOX 318413 EMERGENCY CONTACT						38.85 TONS	
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kear Steward				Signature <i>[Signature]</i>		Month Day Year 10/10/90	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name ENELL CLAYTON				Signature <i>[Signature]</i>		Month Day Year 11/10/90	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis P. [Signature]				Signature <i>[Signature]</i>		Month Day Year 10/10/90	



Tunica Landfill
6835 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310413

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621582
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/04/2008 15:13:46 Scale1
Out 01/04/2008 15:13:46
Comments
Inbound Gross 86100 lb
Tare 28400 lb
Net 57700 lb
Tons 28.85

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.85	Tons				SHE
2 TRI-TRANSPORTATION 100		28.85	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on a 12-pitch typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <i>TN 421 007 0570</i>		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621583	
4. Generator's Phone 210 839-9719						B. State Generator's ID TN HW053	
5. Transporter 1 Company Name <i>Matthews Trucking</i>				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38884				10. US EPA ID Number		E. State Facility's ID	
						F. Facility's Phone 662 353-2202	
11. Distribution of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 1007020AS						<i>0011</i>	<i>01010216</i>
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information <i>TL # 5702</i> <i>Tot # 318411</i> 25.82 TONS						Purchase Order # _____	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.						EMERGENCY CONTACT	
Printed/Typed Name <i>Ken Seok</i>						Signature "On behalf of" <i>[Signature]</i> Month Day Year <i>01/04/08</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>WILLARD</i>						Signature <i>[Signature]</i> Month Day Year <i>01/04/08</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____						Signature _____ Month Day Year _____	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>Francis Boyd</i>						Signature <i>[Signature]</i> Month Day Year <i>01/04/08</i>	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310411

Customer Name E2RINC_436 E2H INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621583
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0080436
Gen EPA ID

Time
In 01/04/2008 15:04:54 Scale
Out 01/04/2008 15:04:54 Scale1
Operator francis
Inbound
Gross 85480 lb
Tare 33840 lb
Net 51640 lb
Tons 25.82

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.82	Tons				SHE
2 TRT-TRANSPORTATION 100		25.82	Tons				SHE

DKW

Total Tax
Total Ticket

Driver's Signature

1000787



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 704131070500		Manifest Document No		2. Page 1 of 4		
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 LUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA		
4. Generator's Phone 210 638-9719						B. State Generator's ID 14/HW0052		
5. Transporter 1 Company Name W.H. H. Co.				6. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone		
9. Transporter 3 Company Name				10. US EPA ID Number		E. State Transporter's ID		
11. Description of Waste Materials USE OF RICA LANDFILL 6000 BOWDRE ROAD BOWDRE, OHIO 44004						F. Transporter's Phone		
						G. State Facility's ID		
						H. Facility's Phone 662 383-2262		
GENERATOR	a. BURNED TIRMS				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	
	WM Profile # 10020405							
	b. WM Profile #							
	c. WM Profile #							
	d. WM Profile #							
J. Additional Description for Materials Listed Above						K. Disposal Location		
Landfill Solidification Bio Remediation						Cell Level		
15. Special Handling Instructions and Additional Information K S 318409 PURCHASE ORDER # EMERGENCY CONTACT								
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.								
Printed/Typed Name				Signature "On behalf of" [Signature]				
				Month Day Year				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials							
	Printed/Typed Name				Signature			
				Month Day Year				
18. Transporter 2 Acknowledgement of Receipt of Materials								
Printed/Typed Name				Signature				
				Month Day Year				
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
	20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Frank J. Brown				Signature [Signature]				
				Month Day Year 10/10/98				



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318404

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621504
Destination
Profile 100709HS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 8000436
Gen EPA ID

Time Scale
In 01/04/2008 14:47:18 Scale1
Out 01/04/2008 14:47:18
Comments
Gross 83000 lb
Tare 32440 lb
Net 50560 lb
Tons 25.28

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.28	Tons				SHE
2 TRT-TRANSPORTATION 100		25.28	Tons				SHE

Total Tax
Total Ticket

Kevin Shepp

Driver's Signature

1000789



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 42110070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621585			
4. Generator's Phone 210 639-0719				B. State Generator's ID TN HW 653			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BONDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 343-2282			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS							
WM Profile # 100703445				001		01701010216	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information 7 RE 1101 TICKET # 318318 24.33 TONS Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name New. Smith				Signature "On behalf of"		Month Day Year 11/17/03	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Matthews Trucking				Signature		Month Day Year 11/17/03	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year 11/17/03	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name				Signature		Month Day Year 11/17/03	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316318

Customer Name EZM INC 436 EZM INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10221585
Destination
PO
Profile 100702015 (BURNED DRUMS)
Generator 101-4EMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0200436
Gen EPA ID
Time
In 01/04/2008 09:52:14 Scale
Out 01/04/2008 09:52:14
Comments
Gross 77860 lb
Tare 28400 lb
Net 49460 lb
Tons 24.33

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.33	Tons				SHE
2 TRT-TRANSPORTATION 100		24.33	Tons				SHE

[Signature]
Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 1007010770		Manifest Document No.		2. Page 1 of 1			
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621586			
4. Generator's Phone 210 333-0710						B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Mullens Trucking				6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38874				10. US EPA ID Number		E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility's ID			
						H. Facility's Phone 662 383-2282			
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. BURIED DRUMS									
WM Profile # 100703216						0011	07	001026	
b. WM Profile #									
c. WM Profile #									
d. WM Profile #									
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TK # 52 TCT # 318397 Purchase Order # _____ EMERGENCY CONTACT: _____						17.81 TONS			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.									
Printed/Typed Name Kevin Seach						Signature "On behalf of" [Signature]		Month Day Year 12/1/08	
17. Transporter 1 Acknowledgement of Receipt of Materials									
Printed/Typed Name [Signature]						Signature [Signature]		Month Day Year 12/1/08	
18. Transporter 2 Acknowledgement of Receipt of Materials									
Printed/Typed Name						Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.									
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.									
Printed/Typed Name Francis Bond						Signature [Signature]		Month Day Year 12/1/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318397

Customer Name E2M INC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621586
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-HEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# S2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/04/2008 14:29:14 Scale
Out 01/04/2008 14:29:14
Comments
Inbound Gross 67940 lb
Tare 32320 lb
Net 35620 lb
Tons 17.81

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		17.81	Tons				SHE
2 TRI-TRANSPORTATION 100		17.81	Tons				SHE

Total Tax
Total Ticket

Darnell Sanders

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 421 0107195710		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621587	
4. Generator's Phone 210 839-9719						B. State Generator's ID TN H0053	
5. Transporter 1 Company Name <i>Matthews Trucking</i>				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers	
						No. Type	
a. BURIED DRUMS						13. Total Quantity	
WM Profile # 100708MS						14. Unit Wt/Vol	
b.						I. Misc. Comments	
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grnd _____	
15. Special Handling Instructions and Additional Information							
Purchase Order # <i>TK PTO</i> <i>24.60 TONS</i>							
EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION:							
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Stork</i>				Signature "On behalf of"		Month Day Year <i>11/14/08</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>NOEL L. ZOLEV</i>				Signature <i>NOEL L. ZOLEV</i>		Month Day Year <i>11/14/08</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year <i>11/14/08</i>	
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Francis Boyd</i>				Signature <i>Francis Boyd</i>		Month Day Year <i>11/14/08</i>	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318396

Customer Name E2M INC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621587
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# R102
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/04/2008 14:20:38 Scale1
Out 01/04/2008 14:20:38
Comments

Gross 79760 lb
Tare 30560 lb
Net 49200 lb
Tons 24.60

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Amount	Tax	Origin
1 BURIED DRUMS & INC 100		24.60	Tons				SHE
2 TRT-TRANSPORTATION 100		24.60	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWA

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 100711027015719		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DICKINSON AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621588	
4. Generator's Phone 210 633-9718						B. State Generator's ID TNH0053	
5. Transporter 1 Company Name Matthews Trucking						C. State Transporter's ID	
6. US EPA ID Number						D. Transporter's Phone	
7. Transporter 2 Company Name						E. State Transporter's ID	
8. US EPA ID Number						F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS, TN 38114						G. State Facility's ID	
10. US EPA ID Number						H. Facility's Phone 632 353-2782	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						201	07 000216
WM Profile # 100708MS							
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR# 5102 Titled # 318331 Tons 30.28 Purchase Order # _____ EMERGENCY CONTACT.							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Ken Smith				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10 14 05	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name DANN L. WILKINS				Signature <i>[Signature]</i>		Month Day Year 10 14 05	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Thommy Reed				Signature <i>[Signature]</i>		Month Day Year 11 14 05	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318332

Customer Name E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621508
Manifest
Destination
Profile 10270000 (BLIND DRAINS)
Generator 101-WEH-HISDEFENSEDEPT MEMPHIS DEFENSE DEPT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 00000435
Gen EPA ID
Operator FRANCIS
Scale Scale1
In 01/04/2008 10:44:14
Out 01/04/2008 10:44:14
Gross 94400 lb
Tare 33840 lb
Net 60560 lb
Tons 30.28

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1	EMRIED DRUMS & INC 100	30.28	Tons				SEE
2	TRT-TRANSPORTATION 100	30.28	Tons				SEE

Dh W

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN121207057P		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621589	
4. Generator's Phone 214-630-0710						B. State Generator's ID TN121207057P	
5. Transporter 1 Company Name Mathews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS, TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 632-363-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				WM Profile # 100703MMS		14. Unit Wt/Vol	
b.				WM Profile #		I. Misc. Comments	
c.				WM Profile #			
d.				WM Profile #			
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information TK#53 Ticket 318334 TONS 2246 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Tom Scott Signature "On behalf of" [Signature] Month Day Year 9/10/98							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kevin Gregory 53 Signature Kevin Gregory Month Day Year							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day Year							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name [Signature] Signature [Signature] Month Day Year 11/9/01							



Tunica Landfill
6835 Bowdrie Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318334

Customer Name EZM INC 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code 10521589
Manifest
Destination
PO

Carrier MATTHEW STRICKLIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 00009436
Gen EPA ID

Profile 100700MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT

Time
In 01/04/2008 10:50:05 Scale
Out 01/04/2008 10:50:05 Scale1

Gross 77360 lb
Tare 32440 lb
Net 44920 lb
Tons 22.46

Comments

CLOSE AT 2:00 PM ON JAN, 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		22.46	Tons				SHF
2 TRT-TRANSPORTATION 100		22.46	Tons				SHF

Total Tax
Total Ticket

Driver's Signature

Kevin Gregory



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

C10041

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4211010, 7019701		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621590	
4. Generator's Phone 210 639-0710						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM, AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						Type	14. Unit Wt/Vol
WM Profile # 100709MS						2101 LPT	000126
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information 1K 1701 28.52 TONS net. 318439							
Purchase Order # _____						EMERGENCY CONTACT.	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kenn Sealish				Signature Kenn Sealish		Month Day Year 10/10/10	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name EWELL CLAYTON				Signature EWELL CLAYTON		Month Day Year 11/14/18	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis Bouc				Signature Francis Bouc		Month Day Year 11/14/18	



Tunica Landfill
6035 Boodne Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318349

Customer Name EDWINC_435 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10521590
Destination
PO
Profile 102703MS (BURNED DRUMS)
Generator 101-FETCHISDEPENSEDEPOT KENTHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 00000436
Gen EDW ID

Time
In 01/04/2008 11:30:29 Scale
Out 01/04/2008 11:30:29 Scale
Comments
Inbound Gross 95440 lb
Tare 29400 lb
Net 57040 lb
Tons 28.52

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.52	Tons				SHE
2 TRT-TRANSPORTATION 100		28.52	Tons				SHE

Driver's Signature

Total Tax
Total Ticket

1000801



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 114210070570		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621591	
4. Generator's Phone 210 439-0710						B. State Generator's ID 1NH0053	
5. Transporter 1 Company Name McHews				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 8035 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 632 383-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100700MS						00127	20027
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR # 1102 TCH # 318352 Purchase Order # _____						27.09 TONS EMERGENCY CONTACT	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Ken Seal				Signature On behalf of [Signature]		Month Day Year 10/10/06	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 11/1/06	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis Boyd				Signature Francis Boyd		Month Day Year 11/14/06	



Tunica Landfill
6935 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316352

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code
Manifest 10621591
Destination
PO

Profile 102709MS (RUMED DRUMS)
Generator 101-4161-MS/DEFENSE/DEPOT MEMPHIS DEFENSE DEPOT

Time In 01/04/2008 11:39:59 Scale Scale1 Operator francis
Out 01/04/2008 11:39:59 Gross 83820 lb
Tare 28640 lb
Net 55180 lb
Tons 27.59

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 RUMED DRUMS & INC 100		27.59	Tons				SHE
2 TRT-TRANSPORTATION 100		27.59	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

403WAL

8080001
1000802

1000803



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 100709MS		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621593	
4. Generator's Phone 210 234-9719						B. State Generator's ID TN050	
5. Transporter 1 Company Name [Signature]			6. US EPA ID Number			C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD BOWLING GREEN MS 38904			10. US EPA ID Number			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 383-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						Type	14. Unit Wt/Vol
WM Profile # 100709MS						20110709076	I. Misc. Comments
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information Ticket # 318354 Ton 28.33 Purchase Order # _____ EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name [Signature]				Signature "On behalf of" [Signature]		Month Day Year 01/07/06	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 01/07/06	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 01/07/06	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318354

Customer Name E27INC 436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10021593
Manifest
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709NS (DRUMS)
Generator 181-METCHIS DEFENSE DEPOT METCHIS DEFENSE DEPOT

Time
In 01/04/2008 11:49:03 Scale 1
Out 01/04/2008 11:49:03
Comments

Inbound
Operator francis
Gross 85000 lb
Tare 28400 lb
Net 56600 lb
Tons 28.33

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.33	Tons				SEE
2 TRT-TRANSPORTATION 100		28.33	Tons				SEE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN0021101070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1776 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621594			
4. Generator's Phone 210 639-9719				B. State Generator's ID TNH2053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 682 303-2282			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				0101 2T		010128	
WM Profile # 100700MS							
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR# SI Ticket # 318354 Tons 21.43 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seash				Signature "On behalf of" [Signature]		Month Day Year 01/04/08	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name [Signature]		Signature [Signature]	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.			
Printed/Typed Name Tammy Reed				Signature [Signature]		Month Day Year 11/14/08	



Tunica Landfill
6035 Howdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318356

Customer Name E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621534
Destination
PO
Profile 100709MS (BURIED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# 501
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/04/2008 11:59:44 Scale
Out 01/04/2008 11:59:44
Comments

Inbound Gross 74620 lb
Tare 31750 lb
Net 42860 lb
Tons 21.43

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		21.43	Tons				SHE
2 TNT-TRANSPORTATION 100		21.43	Tons				SHE

Total Tax
Total Ticket

David L. Vail

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on 12 pitch typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. W4210070579		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 PURNELL AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621585			
4. Generator's Phone 210 630 0710				B. State Generator's ID TUN0053			
5. Transporter 1 Company Name Williams Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 901 383-2282			
11. Description of Waste Materials				12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
a. BURIED DRUMS							
WM Profile # 100709MS				201	27	40 PR	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TRK # 53 Ticket # 3183603 Tons 21.95 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Leach				Signature "On behalf of"		Month Day Year 11/10/97	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name Kevin Gregory 53		Signature Kevin Gregory	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				Printed/Typed Name Tommy Reg		Signature Tommy Reg	
						Month Day Year 11/19/97	



Tunica Landfill
6835 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318363

Customer Name ERM INC 436 ERM INC 436
Ticket Date 01/04/2008
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code 10621595

Manifest 10621595
Destination

Profile 10070216 (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Volume
Inbound
Operator francis
Scale Scale1
Gross 76340 lb
Tare 32440 lb
Net 43900 lb
Tons 21.95

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		21.95	Tons				SHE
2 TRT-TRANSPORTATION 100		21.95	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

400WMA

Matthew Struckin

1000808

1000808



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 1004210070570		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621596	
4. Generator's Phone 210-436-0719						B. State Generator's ID TN40053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662-363-2782	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						14. Unit Wt./Vol.	15. Misc. Comments
WM Profile # 100700MS						2011	2010/07/26
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR # 5702 TAT # 318373 PURCHASE ORDER # EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kara L. Smith				Signature "On behalf of"		Month Day Year 10/10/06	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name A. W. Smith				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis Boyd				Signature		Month Day Year 10/10/06	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310373

Customer Name E2RJNC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621596
Manifest
Destination PG
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/04/2008 13:09:05 Scale
Out 01/04/2008 13:09:05 Scale1
Operator francis
Inbound
Gross 80320 lb
Tare 33040 lb
Net 46480 lb
Tons 23.24

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		23.24	Tons				SHE
2 TRF-TRANSPORTATION 100		23.24	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 1W421001795719		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621597			
4. Generator's Phone 210 639-9719				5. State Generator's ID 1W421001795719			
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number			
7. Transporter 2 Company Name				7. US EPA ID Number			
9. Designated Facility Name and Site Address THE TUNUCA LANDFILL 8035 BOWDRE ROAD BOWLING GREEN MS 38924				10. US EPA ID Number			
				C. State Transporter's ID			
				D. Transporter's Phone			
				E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 383-2282			
11. Description of Waste Materials		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
a. BURIED DRUMS							
WM Profile # 100702MS		0101210P076					
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TKL TFO1 Tota 318378 Purchase Order # _____ EMERGENCY CONTACT: _____				26.29 TONS			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Frank				Signature "On behalf of" [Signature]		Month Day Year 01/04/08	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Ewell Clayton				Signature [Signature]		Month Day Year 11/14/08	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis Bond				Signature Francis Bond		Month Day Year 01/04/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318378

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10521597
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/04/2008 13:20:31 Scale1
Out 01/04/2008 13:20:31
Comments

Inbound Gross 80980 lb
Tare 28400 lb
Net 52580 lb
Tons 26.29

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDs	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.29	Tons				SHE
2 TRT-TRANSPORTATION 100		26.29	Tons				SHE

Driver's Signature

Total Tax
Total Ticket

180001
1000812

1000813



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. W14010107015701		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621598	
4. Generator's Phone 210 632-8710						B. State Generator's ID TWH053	
5. Transporter 1 Company Name Matthew's Inc.				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TURCKA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 353-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100702MS						010101	010101
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information TK # TT02 Ticket # 318380 Tons 26.85 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kern Seash				Signature "On behalf of"		Month Day Year 10/10/08	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name CP Whitehouse				Signature		Month Day Year 11/11/08	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Tammy Reed				Signature Tammy Reed		Month Day Year 11/11/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316380

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621598
Manifest
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# 1102
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time
In 01/04/2008 13:29:06 Scale
Out 01/04/2008 13:29:06 Scale
Operator francis
Inbound
Gross 82340 lb
Tare 28640 lb
Net 53700 lb
Tons 26.85

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.85	Tons				SHE
2 TRT-TRANSPORTATION 100		26.85	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

[Signature]



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 104310009510		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621589			
4. Generator's Phone 210 439-0710				B. State Generator's ID TNW053			
5. Transporter 1 Company Name Matthews Trucking				C. State Transporter's ID			
6. US EPA ID Number				D. Transporter's Phone			
7. Transporter 2 Company Name				E. State Transporter's ID			
8. US EPA ID Number				F. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				G. State Facility's ID			
10. US EPA ID Number				H. Facility's Phone 662 363-2782			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				WM Profile # 100700MS		100 21T 00026	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information R701 Purchase Order # _____ Tet 218382 EMERGENCY CONTACT				2554 TONS			
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Smith				Signature "On behalf of"		Month Day Year 10/10/08	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis Boyd				Signature Francis Boyd		Month Day Year 08/07/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318382

Customer: TUNICA LANDFILL

Invoice# 318382

Invoice Date: 12/20/2000

Invoice To: TUNICA LANDFILL

Invoice From: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

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Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Invoice To: WASTE MANAGEMENT

Carrier: MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Volume

Gross 80720 lb
Tare 29640 lb
Net 51080 lb
Tons 25.54

Inbound

Parameter
Waste
Material

MEMPHIS DEFENSE DEPOT

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.54	Tons				SHE
2 TRI-TRANSPORTATION 100		25.54	Tons				SHE

Handwritten signature

Total Tax
Total Ticket

Driver's Signature

400000

1800001
1000816



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4210070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621600			
4. Generator's Phone 210 639-9719				B. State Generator's ID TNH2053			
5. Transporter 1 Company Name Mullins Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 333-2282			
11. Description of Waste Materials				12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
a. BURIED DRUMS WM Profile # 100709MS				010101	01	010101	216
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TIL 51 Tet 318388 Purchase Order # _____ EMERGENCY CONTACT. 25.33 Ton							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name: <u>Kevin Jensen</u> Signature: <u>[Signature]</u> Month Day Year: <u>10/10/10/18</u>							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: <u>[Signature]</u> Signature: <u>[Signature]</u> Month Day Year: <u>10/10/10/18</u>							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: _____ Signature: _____ Month Day Year: _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name: <u>Francis Bond</u> Signature: <u>Francis Bond</u> Month Day Year: <u>10/10/10/18</u>							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318308

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621600
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# S01
Container
Driver
Check#
Billing # 8000436
Gen EPA ID

Profile 100700MS (BURNED DRUMS)
Generator 101-REHFWISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time
In 01/04/2008 13:55:42 Scale
Out 01/04/2008 13:55:42
Comments
Gross 82420 lb
Tare 31760 lb
Net 50660 lb
Tons 25.33

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		25.33	Tons				SHE
2 TRT-TRANSPORTATION 100		25.33	Tons				SHE

David Hall

Total Tax
Total Ticket

Driver's Signature

1000819



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 747210970970		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DUNE AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621602	
4. Generator's Phone 210 634-8719						B. State Generator's ID TN#W053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name 0				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6055 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUGS						14. Unit Wt/Vol	
WM Profile # 100700MS				0101 07		2010216	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TK # 7704 Ticket # 318392 Tons 28.45 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seulink				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature		Month Day Year 	
Printed/Typed Name							
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Month Day Year 	
Printed/Typed Name							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.				Signature <i>[Signature]</i>		Month Day Year 	
Printed/Typed Name Kevin Seulink							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310392

Customer Name E2HINC_436 E2M INC_436
Ticket Date 01/04/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621602
Destination
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

In 01/04/2008 14:07:15 Scale
Out 01/04/2008 14:07:15 Scale
Comments

Inbound Gross 96480 lb
Tare 29640 lb
Net 56840 lb
Tons 28.42

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.42	Tons				SHE
2 TRT-TRANSPORTATION 100		28.42	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 1716101701701701		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10500635			
4. Generator's Phone 210 630-0710				B. State Generator's ID 1716 053			
5. Transporter 1 Company Name <i>McClure</i>		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
				E. State Transporter's ID			
				F. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38864		10. US EPA ID Number		G. State Facility's ID			
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS							
WM Profile # 100708MS				<i>901 01</i>		<i>210 0176</i>	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information <i>TK# TT03</i> <i>Tot # 318 443</i> 29,000 TONS							
Purchase Order # _____				EMERGENCY CONTACT: _____			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Seash</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year <i>10/19/09</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>[Name]</i>				Signature <i>[Signature]</i>		Month Day Year <i>10/19/09</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>[Name]</i>				Signature <i>[Signature]</i>		Month Day Year <i>10/19/09</i>	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Francis Brown</i>				Signature <i>[Signature]</i>		Month Day Year <i>10/19/09</i>	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318443

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10600635
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# TT03
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/05/2008 09:07:39 Scale
Out 01/05/2008 09:07:39 Scale
Comments

Inbound
Gross 86940 lb
Tare 28940 lb
Net 58000 lb
Tons 29.00

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.00	Tons				SHE
2 TRT-TRANSPORTATION 100		29.00	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CUD1

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 1000823		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10000836	
4. Generator's Phone 210 636-6718						B. State Generator's ID TN10053	
5. Transporter 1 Company Name M. H. H. S. S. S.				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
BURIED DRUMS							
WM Profile # 100709MS						100107	100107
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TRF RT01 T01 30046 EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seabolt				Signature "On behalf of" [Signature]		Month Day Year 10/19/02	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 10/19/02	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 10/19/02	



Tunica Local #111
6633 Bayview Rd
Memphis, TN 38114
Tel 901 362 3552

Original
Ticket# 318446

Customer Name E2MINC_436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 106000530
Manifest
Permit
Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

WASTE MANAGEMENT
10101 WILSON BLVD
MEMPHIS, TN 38114
TEL 901 362 3552

Inbound
Gross 84000 lb
Tare 29640 lb
Net 54440 lb
Tons 27.22

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOH	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.22	Tons				SHE
2 TRF-TRANSPORTATION 100		27.22	Tons				SHE

[Handwritten signature]

Total Tax
Total Ticket

PS800001
1000824

1000825



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

C10041

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. [Blank]		Manifest Document No. [Blank]		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600637	
4. Generator's Phone 210 639-9719						B. State Generator's ID [Blank]	
5. Transporter 1 Company Name [Blank]				6. US EPA ID Number [Blank]		C. State Transporter's ID [Blank]	
7. Transporter 2 Company Name [Blank]				8. US EPA ID Number [Blank]		D. Transporter's Phone [Blank]	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOHNSVILLE MS 38964				10. US EPA ID Number [Blank]		E. State Transporter's ID [Blank]	
						F. Transporter's Phone [Blank]	
						G. State Facility's ID [Blank]	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100700445						0101	01 0 0101216
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information TR# 7701 TR# 318454 Purchase Order # _____ EMERGENCY CONTACT: _____						31.00 TONS	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kenn Seaver				Signature "On behalf of" [Signature]		Month Day Year 01/01/08	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name EMILY CLAYTON				Signature [Signature]		Month Day Year 01/01/08	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Blank]				Signature [Blank]		Month Day Year [Blank]	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis Brown				Signature [Signature]		Month Day Year 01/01/08	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318454

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING

Vehicle# TT01

Container

Driver

Check#

Billing # 0000436

Gen EPA ID

Volume

INBOUND TO WILSONS DEFENSE DEPOT

Inbound
Gross 90480 lb
Tare 28400 lb
Net 62080 lb
Tons 31.04

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		31.04	Tons				SHE
2 TRT-TRANSPORTATION 100		31.04	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

403101

1000826
1000001



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 1442110072530		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600638			
4. Generator's Phone 210 639-0710				B. State Generator's ID TN 100153			
5. Transporter 1 Company Name M. H. ...		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38884		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 383-2332			
11. Description of Waste Materials				12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. BURIED DRUMS							
WM Profile # 100700MS				10	1	10	16
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information + 12 # TFO2 TFO2 31845 EMERGENCY CONTACT 26.6 TONS							
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin F. ...				Signature "On behalf of"		Month Day Year 11/19/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name ...				Signature		Month Day Year 11/19/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year 11/19/98	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis B. ...				Signature		Month Day Year 11/19/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318455

Customer Name E2HINC_436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600638
Destination
PO
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# 1102
Container
Driver
Check#
Killing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 181-KENPHISDEFENSEDEPT 181-15 6036 PE DEPT

Time Scale
In 01/05/2008 10:30:34 Scale1
Out 01/05/2008 10:30:34
Comments
Inbound Gross 01860 lb
Tare 20648 lb
Net 53220 lb
Tons 26.61

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.61	Tons				SHE
2 TRT-TRANSPORTATION 100		26.61	Tons				SHE

Total Tax
Total Ticket

Signature



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4210072770		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10603639	
4. Generator's Phone 210 630 6710						B. State Generator's ID TN42013	
5. Transporter 1 Company Name A. J. Jones - Inc.				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name C				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSVILLE MS 38884				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS						14. Unit Wt/Vol	
WM Profile # 100709MS				01/01/97		2000/26	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR # 7702 TR # 318407 28.21 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40.CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kerr Seash				Signature [Signature]		Month Day Year 01/05/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 01/05/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis Boy				Signature Francis Boy		Month Day Year 01/05/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318427

Customer Name E2MIND_436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600639
Destination
PO
Profile 100709HS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 01/03/2008 07:55:53 Scale1
Out 01/03/2008 07:55:53
Comments

Inbound Gross 25140 lb
Tare 28640 lb
Net 50500 lb
Tons 28.25

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.25	Tons				SHE
2 TRT-TRANSPORTATION 100		28.25	Tons				SHE

Total Tax
Total Ticket

CP [Signature]

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 1040110070370		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600640			
4. Generator's Phone 210 839-9719				B. State Generator's ID TN H053			
5. Transporter 1 Company Name M. H. ...		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 333-2282			
11. Description of Waste Materials				12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol
a. BURIED DRUMS							
WM Profile # 10070245							
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TH# TT04 TCT# 3/8421 Purchase Order #				29.62 Ton EMERGENCY CONTACT:			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Aron ...				Signature "On behalf of"		Month Day Year 12/19/08	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis ...				Signature		Month Day Year 12/19/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318431

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600640
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# T104
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale Inbound Gross
In 01/05/2008 08:03:29 Scale1 88800 lb
Out 01/05/2008 08:09:29 29640 lb
Net 59240 lb
Tons 29.62

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.62	Tons				SHE
2 TRI-TRANSPORTATION 100		29.62	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



WASTE MANAGEMENT

Case

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 44710070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 19600641			
				B. State Generator's ID 44-053			
4. Generator's Phone 210-630-0710				C. State Transporter's ID			
5. Transporter 1 Company Name				D. Transporter's Phone			
6. US EPA ID Number				E. State Transporter's ID			
7. Transporter 2 Company Name				F. Transporter's Phone			
8. US EPA ID Number				G. State Facility's ID			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOONVILLE MS 38864				H. Facility's Phone 662-363-7282			
11. Description of Waste Materials BURIED DRUGS				12. Containers No. Type		13. Total Quantity	
				14. Unit Wt./Vol		I. Misc. Comments	
a. WM Profile # 100708MS				0010700016			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____	
15. Special Handling Instructions and Additional Information <div style="text-align: right;"> TR RTO2 EMERGENCY CONTACT: </div>							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Search				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 01/09/16	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kevin Search				Signature <i>[Signature]</i>		Month Day Year 01/09/16	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year 01/09/16	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Kevin Search				Signature <i>[Signature]</i>		Month Day Year 01/09/16	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 353 2282

Original
Ticket# 318433

Customer Name E2H INC 436 ECH INC 436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600641
Destination PG
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/05/2008 08:21:17 Scale1
Out 01/03/2008 08:21:17
Comments
Gross 87320 lb
Tare 30560 lb
Net 56760 lb
Tons 28.38

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.38	Tons				SHE
2 TRT-TRANSPORTATION 100		28.38	Tons				SHE

Handwritten signature

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No 100700943		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10600842	
4. Generator's Phone 210 638-5719						B. State Generator's ID TN 00000000	
5. Transporter 1 Company Name Waste Management				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE TN 38076				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							14. Unit Wt/Vol
WM Profile # 100700943							I. Misc. Comments
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ So identification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information THIS IS 2 22-86 TON EMERGENCY CONTACT: 318 925							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Karen Smith				Signature "On behalf of" [Signature]		Month Day Year 01/10/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Karen Smith				Signature [Signature]		Month Day Year 01/10/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name [Signature]				Signature [Signature]		Month Day Year 01/10/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310435

Customer Name E2HINC 436 E2H INC 436

Ticket Date 01/05/2008

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10500642

Destination

PO

Profile 100709MS (BURNED DRUMS)

Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING

Vehicle# S3

Container

Driver

Check#

Billing # 0000436

Gen EPA ID

Volume

Time	Scale	Operator	Inbound	Gross	Tare	Net	Tons
In 01/05/2008 08:34:31	Scale1	FRANCIS		70160 lb	32440 lb	45720 lb	22.86
Out 01/05/2008 08:34:31		FRANCIS					

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		22.86	Tons				SHE
2 TR1-TRANSPORTATION 100		22.86	Tons				SHE

Total Tax
Total Ticket

Kevin Long

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CVR35

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. 104271207207070		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10600643			
4. Generator's Phone 210 538-9719				B. State Generator's ID WMNA 053			
5. Transporter 1 Company Name <i>William</i>		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD SCOTTSDALE MS 38984		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 682 383-2282	
11. Description of Waste Materials BURIED DRUMS				12. Containers No. Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
WM Profile # 100700MS				0101 07	0000126		
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information <i>etc 2</i> <i>EMERGENCY CONTACT</i>				24311002			
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Norm Souda</i>		Signature "On behalf of"		Month Day Year <i>01 01 98</i>			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Anthony J. Wallace</i>		Signature <i>Anthony J. Wallace</i>		Month Day Year 			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Year 			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Francis Board</i>		Signature <i>Francis Board</i>		Month Day Year <i>01 01 98</i>			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318441

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10600643
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/05/2008 08:54:09 Scale
Out 01/05/2008 08:54:09 Scaled
Comments

Inbound
Gross 82460 lb
Tare 33840 lb
Net 48620 lb
Tons 24.31

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.31	Tons				SHE
2 TRT-TRANSPORTATION 100		24.31	Tons				SHE

Dh

Total Tax
Total Ticket

Driver's Signature

1000839



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No. <u>0510</u> <u>TN 9121 2007 450</u>		Manifest Document No.		2 Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621553	
4. Generator's Phone 210 632-0718						B. State Generator's ID <u>TN 9121 2007 450</u>	
5. Transporter 1 Company Name <u>Matthews Trucking</u>				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 901 363-2282	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							14. Unit Wt/Vol
WM Profile # 1007090AS						<u>001</u>	<u>01000000</u>
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information <u>TLC # RTO</u> <u>TLC # 311453</u> <u>29.43 TONS</u> Purchase Order # _____ EMERGENCY CONTACT _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <u>Kevin S. Ford</u>				Signature <u>[Signature]</u>		Month Day Year <u>01/25/08</u>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <u>WILL SULEN</u>				Signature <u>[Signature]</u>		Month Day Year <u>01/25/08</u>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year <u>01/25/08</u>	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <u>Francis B. Boyd</u>				Signature <u>[Signature]</u>		Month Day Year <u>01/25/08</u>	

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318453

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621553
Destination
PO
Profile 109709MS (BURNED DRUMS)
Generator 161-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/05/2008 10:20:16 Scale
Out 01/05/2008 10:20:16 Scale1
Operator FRANCIS
Inbound
Gross 89420 lb
Tare 30560 lb
Net 58860 lb
Tons 29.43

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.43	Tons				SHE
2 TRT-TRANSPORTATION 100		29.43	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

83320

CWM

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TM42110070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621554			
4. Generator's Phone 210 639-0710				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 363-2282	
11. Description of Waste Materials				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Misc. Comments
a. BURIED DRUMS WM Profile # 100709MS				0101	01	0001216	W
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR 1 53 TEX 1 318461 Purchase Order # _____ EMERGENCY CONTACT: _____				25.44 TONS			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Starnick				Signature "On behalf of" [Signature]		Month Day Year 01/05/08	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kevin Greaney 53				Signature [Signature]		Month Day Year 01/05/08	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Francis Boyd							
Signature [Signature]				Month Day Year 01/05/08			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2262

Original
Ticket# 316461

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621554
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Gross 83320 lb*
Tare 32440 lb*
Net 50880 lb
Tons 25.44

Inbound
Operator FRANCIS
FRANCIS
Manual Weight

Scale
Serial

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Gty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.44	Tons				SHE
2 TRT-TRANSPORTATION 100		25.44	Tons				SHE

Kenneth Gregory



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN 421 0070570		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPT 1716 DURN AVENUE MEMPHIS TN 38118						A. Manifest Number WMNA 10621555	
4. Generator's Phone 240 630 0710						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38118				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 901 262-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						14. Unit Wt./Vol	I. Misc. Comments
WM Profile # 100700MS						001 07 000000	Y1
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TK# STCS TK# 318 66X Purchase Order # _____ EMERGENCY CONTACT: _____						2770 TONS	
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Norm Smith				Signature "On behalf of"		Month Day Year 01/01/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name DANIEL L. WILLIAMS				Signature Daniel L. Williams		Month Day Year 01/01/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Frankie Board				Signature Frankie Board		Month Day Year 01/01/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318464

Customer Name E2RINC_436 E2H INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10821555
Manifest
Destination
PO
Profile 10070998 (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/05/2008 10:56:11 Scale
Out 01/05/2008 10:56:11 Scale1
Comments
Inbound Gross 89240 1b
Tare 33840 1b
Net 55400 1b
Tons 27.70

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.70	Tons				SHE
2 TRT-TRANSPORTATION 100		27.70	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000845



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1 Generator's US EPA ID No		Manifest Document No		2 Page 1 of 1	
3 Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 716 DRUM AVENUE MEMPHIS TN 38116						A Manifest Number WMNA TN 42 253	
4 Generator's Phone 212 532-8710						C State Transporter's ID	
5 Transporter 1 Company Name				6 US EPA ID Number		D Transporter's Phone	
7 Transporter 2 Company Name				8 US EPA ID Number		E State Transporter's ID	
9 Designated Facility Name and Site Address THE CHICKA LAHOPPE 8055 ROMARE ROAD MEMPHIS TN 38116				10 US EPA ID Number		F Transporter's Phone	
11 Description of Waste Materials						G State Facility's ID	
						H Facility's Phone 662 363 2282	
						I Misc Comments	
a						12 Containers No. Type	
WM Profile # 10070001						13 Total Quantity	
b						14 Unit Wt./Vol.	
WM Profile #							
c							
WM Profile #							
d							
WM Profile #							
J Additional Descriptions for Materials Listed Above Landfill Solidification Bio Remediation						K Disposal Location Cell Level Grid 24.25 TONS	
15 Special Handling Instructions and Additional Information - TR 11-17 03 - 107 11-17 03							
Purchase Order #							
16 GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Signature "On Behalf of"						Month Day Year	
17 Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name						Signature	
18 Transporter 2 Acknowledgement of Receipt of Materials						Month Day Year	
Printed/Typed Name						Signature	
19 Certificate of Final Treatment/Disposal						Month Day Year	
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20 Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest							



Tunica Landfill
6035 Bowdrie Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310466

Customer Name ERM INC 436 ERM INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621556
Destination
PO
Profile 100709MS (TURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPT MEMPHIS DEFENSE DEPT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT03
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time Scale
In 01/05/2008 11:00:57 Scale
Out 01/05/2008 11:00:57
Comments

Inbound
Gross 77440 lb
Tare 28948 lb
Net 48500 lb
Tons 24.25

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.25	Tons				SHE
2 TRT-TRANSPORTATION 100		24.25	Tons				SHE

[Signature]

Operator's Signature

Total Tax
Total Ticket

1000847



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN 4210070870		Manifest Document No		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621565	
4. Generator's Phone 210 632-9719						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Matthew Trucking						C. State Transporter's ID	
6. US EPA ID Number						D. Transporter's Phone	
7. Transporter 2 Company Name						E. State Transporter's ID	
8. US EPA ID Number						F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TURCCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38804						G. State Facility's ID	
10. US EPA ID Number						H. Facility's Phone 662 383-2782	
11. Description of Waste Materials						12. Containers No. Type	13. Total Quantity
a. BURIED DRUMS							
WM Profile # 100702MS						001 AT	900216
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR # T104 TCT # 318 456						28.75 TONS	
Purchase Order # _____						EMERGENCY CONTACT: _____	
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Spauld				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 9/15/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name L. H. H.				Signature <i>[Signature]</i>		Month Day Year 9/15/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Francis Boyd				Signature <i>[Signature]</i>		Month Day Year 9/19/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318456

Customer Name ERM INC 436 ERM INC 436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621565
Manifest
Destination PG
Carrier MATTHEW TRUCKIN STRAYHORN TRUCKING
Vehicle# 1104
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Operator
FRANCIS
FRANCIS
Inbound

Gross 87140 lb
Tare 29640 lb
Net 57500 lb
Tons 28.75

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.75	Tons				SHE
2 TRT-TRANSPORTATION 100		28.75	Tons				SHE

Total Tax
Total Ticket

PA80001
1000848



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TW42101070570		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621580	
4. Generator's Phone 210 639-9719						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Matthews Trucking			6. US EPA ID Number			C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BOONVILLE MS 38824			10. US EPA ID Number			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 373-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS							
WM Profile # 10070845				0101 SIT 0101216			
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information LTO1 TR RT 01 Tct 318425 Purchase Order #						30.88 Ton	
16. GENERATOR'S CERTIFICATION. I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seale				Signature "On behalf of"		Month Day Year 01/05/08	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature		Month Day Year	
Printed/Typed Name							
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Month Day Year	
Printed/Typed Name							
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Francis Boyd				Signature Francis Boyd		Month Day Year 11/10/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318425

Customer Name E2MNC_436 E2M INC_436
Ticket Date 01/05/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621580
Manifest
Destination
PU
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000435
Gen EPA ID

Time Scale
In 01/05/2008 07:44:27 Scale
Out 01/05/2008 07:44:27
Comments

Inbound Gross 91400 lb
Tare 29640 lb
Net 61760 lb
Tons 30.88

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		30.88	Tons				SHE
2 TRT-TRANSPORTATION 100		30.88	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000851



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26003

GENERATOR

Name of Generator: Memphis Defense DepotAddress: 1716 Dunn AveMemphis, TN 38114Phone No.: (710) 639-0719Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location:

TN 42100 70870Address: TN HW 053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318559

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums26
☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
 Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
 Generator Authorized Agent

[Signature]
 Signature

07/07/08
 Shipment Date

TRANSPORTER

Truck No.: TT04Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Lawrence Scott
 Signature

07/07/08
 Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]
 Signature

07/07/08
 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Site Address: 6035 Bowdre Road Robinsonville, MS 38664Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
 Name

☒ Tammy Red
 Name

Signature

Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE:

29.53



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318559

Customer Name E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 26003
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT

Time Scale
In 01/07/2008 12:48:49 Scale1
Out 01/07/2008 12:48:49
Gross 88700 lb
Tare 29240 lb
Net 59060 lb
Tons 29.53

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD#	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.53	Tons				SHE
2 TRT-TRANSPORTATION 100		29.53	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000853
26004



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26004

GENERATOR

Name of Generator: Memphis DeLancey Depot
Address: 1716 Penn Ave
Memphis, TN 38114
Phone No.: (210) 639 9719
Waste ID. Code No.: 100709 MS
Special Handling Instructions and Additional Information: _____

Waste Generation Location: TN4210070870
Address: TNHW053
Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318558 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
<u>Buried Drums</u>	<u>26</u>	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: _____ Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry Generator Authorized Agent [Signature] Signature 01/07/08 Shipment Date

TRANSPORTER

Truck No.: TT02
Transporter Name: Matthews Trucking
Address: _____

Transporter Phone No.: () _____
Driver Name (print): _____
Vehicle License No./State: _____
Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature] Signature 01/07/08 Pickup Date

[Signature] Signature 01/07/08 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.
Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
☒ Tammy Red

[Signature] Signature

1/7/08 Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 27.11



Tunica Landfill
6035 Rowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318558

Customer Name E2MINC_436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 25004
Manifest
Destination
PO

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100700MS (BURNED DRUMS)
Generator 161-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time
In 01/07/2008 12:47:02 Scale
Out 01/07/2008 12:47:02 Scale1
Comments
Operator TRACY
Inbound
Gross 62860 lb
Tare 28640 lb
Net 54220 lb
Tons 27.11

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.11	Tons				SHE
2 TRT-TRANSPORTATION 100		27.11	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

20000855



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

20005

GENERATOR

Name of Generator: Memphis Police Dept

Address: 1716 Dumas Ave

Memphis, TN 38114

Phone No.: (202) 6359716

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location:

TN4210070870

Address: TN4210053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459

Ticket Number: 318555

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums
RT01

26

- ☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

- ☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
Generator Authorized Agent

[Signature]
Signature

01/07/08
Shipment Date

TRANSPORTER

Truck No.: RT01

Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Phoeb Thonhu
Signature Pickup Date 01/07/08

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]
Signature Delivery Date 01/07/08

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Discrepancies: _____

Phone No.: 1-877-989-2783

Time: _____

I hereby certify that the above named material has been accepted, and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
Name

☒ Tammy Red

[Signature]
Signature

1.7.08
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 31.07



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318553

Customer Name E2RINC_436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26005
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 12:31:01 Scale
Out 01/07/2008 12:31:01 Scales
Comments
Operator TAMMY
TAMMY
Inbound
Gross 91780 lb
Tare 29640 lb
Net 62140 lb
Tons 31.07

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		31.07	Tons				SHE
2 TRT-TRANSPORTATION 100		31.07	Tons				SHE

Total Tax
Total Ticket

01/07/2008 5:51 PM

1000857

3880001



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26008

GENERATOR

Name of Generator: Memphis Defense Depot

Waste

Generation

Location: TN4210070870Address: 1716 Dunn AveAddress: TNHW 053Memphis, TN 38114Phone No.: (210) 639 9719

Phone No.: ()

Waste ID. Code No.: 100 709 MS

Special Handling Instructions and Additional Information:

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318551

Customer Number:

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums26☐ Pounds☐ Tons☒ Cu. Yd.☐ Cu. Ft.☐ Drum☐ Carton☐ Bag☒ Truck☐ Box☐ Other:

Volume:

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry

Generator Authorized Agent

Signature

01/07/08

Shipment Date

TRANSPORTER

Truck No.: 7101

Transporter Phone No.: ()

Transporter Name: Matthews Trucking

Driver Name (print):

Address:

Vehicle License No./State:

Vehicle Certification:

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Signature

Ewell Clayton

Pickup Date

Signature

Ewell Clayton

Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time:

Discrepancies:

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd☒ Tammy Red

Name

Signature

Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 27.45



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318557

Customer Name E2MNC_436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26008
Manifest
Destination
PG
Profile 100709MS (BURNED DRUMS)
Generator 1A1-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# Y101
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 12:44:31 Scale
Out 01/07/2008 12:44:31
Comments

Inbound
Operator TAMMY
Gross 83300 lb
Tare 28400 lb
Net 54900 lb
Tons 27.45

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.45	Tons				SHE
2 TRT-TRANSPORTATION 100		27.45	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000859
8280071**THE TUNICA LANDFILL**

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26009

GENERATORName of Generator: Memphis Defence DepotAddress: 716 Dunn Ave
Memphis, TN 38114Phone No.: (210) 6399719Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location: TN 4210070870Address: TN #W 053

Phone No.: (_____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318550 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
Buried Drums	26	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: _____ Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Joh. Spruill
Generator Authorized Agent[Signature]
Signature0107108
Shipment Date**TRANSPORTER**Truck No.: S3Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (_____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Kevin Gregory S3 0107108
Signature Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Kevin Gregory 0107108
Signature Delivery Date**DESTINATION**Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
Name☒ Tammy Red[Signature]
Signature117108
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 21.80



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2202

Original
Ticket# 318552

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26003
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT
Carrier MATTHEW STRICKIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

In Time 01/07/2008 12:18:06 Scale Scale1
Out 01/07/2008 12:18:06
Comments
Operator TERRY TERRY
Inbound
Gross 76040 lb
Tare 32440 lb
Net 43600 lb
Tons 21.80

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		21.80	Tons				SHE
2 TRT-TRANSPORTATION 100		21.80	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

Kevin Murphy S3

1000861

0080001



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26010

GENERATOR

Name of Generator: Memphis Deference DepotWaste Generation Location: TN4210070870Address: 1716 Dunn Ave
Memphis, TN 38114Address: TN HW 053Phone No.: (710) 6349719

Phone No.: ()

Waste ID. Code No.: 100709 M3

Special Handling Instructions and Additional Information:

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318547

Customer Number:

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums26
☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other:
 Volume:

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
 Generator Authorized Agent

[Signature]
 Signature

01/07/08
 Shipment Date

TRANSPORTER

Truck No.: T703

Transporter Phone No.: ()

Transporter Name: Matthews Trucking

Driver Name (print):

Address:

Vehicle License No./State:

Vehicle Certification:

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]
 Signature

01/07/08
 Pickup Date

[Signature]
 Signature

01/07/08
 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time:

Discrepancies:

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
 Name

☒ Tammy Red

[Signature]
 Signature

1/7/08
 Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE:

26.97



Yonkers Landfill
6025 Beaufort Rd
Rochester, NY 14624
PA 582 313 2262

Original
Ticket# 318547

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT03
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Volume

Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

In 20020123 11/01/12 5.000
Out 11/07/12 11/07/12
Gross 82880 lb
Tare 26940 lb
Net 53940 lb
Tons 26.97

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.97	Tons				SHE
2 TRT-TRANSPORTATION 100		26.97	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

Emily Jach

1000862
1000862

1000863

5880001



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26011

GENERATOR

Name of Generator: Memphis DeptAddress: 1716 Dunn AveMemphis, TN 38114Phone No.: (210) 6399716Waste ID. Code No.: 100209MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location:

TN4210070870Address: TN421053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318564

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums26
☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum
☒ Truck
☐ Carton
☐ Box
☐ Bag
☐ Other: _____
 Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Spence
 Generator Authorized Agent

[Signature]
 Signature

0107108
 Shipment Date

TRANSPORTER

Truck No.: STC 2Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Danny L. Williams
 Signature
Pickup Date 0107108
Danny L. Williams
 Signature
Delivery Date 0107108

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Site Address: 6035 Bowdre Road Robinsonville, MS 38664Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd

Name

☒ Tammy Red

Signature

Receipt Date 117108

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 25.23



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318564

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26011
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# SIC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 13:09:02 Scale
Out 01/07/2008 13:09:02 Scale1
Comments
Operator TERRY TERRY
Inbound
Gross 84300 lb
Tare 33840 lb
Net 50460 lb
Tons 25.23

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.23	Tons				SHE
2 TRT-TRANSPORTATION 100		25.23	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000865
0089001**THE TUNICA LANDFILL**

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26012

GENERATORName of Generator: Memphis Debris DeptWaste Generation Location: TN 4210070870Address: 1716 Dunn AveAddress: TN 4210053Phone No.: (210) 6399-716

Phone No.: ()

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information:

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318590

Customer Number:

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description**Actual Quantity****Units****Container Type**Buried Drums26☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other:
Volume:

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Spencer
Generator Authorized Agent

Signature

11.7.08
Shipment Date**TRANSPORTER**Truck No.: RTO2Transporter Name: Matthews Trucking

Address:

Transporter Phone No.: ()

Driver Name (print):

Vehicle License No./State:

Vehicle Certification:

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Signature

Pickup Date

Signature

11.7.08
Delivery Date**DESTINATION**Site Name: Waste Management of Tunica Landfill, Inc.Site Address: 6035 Bowdre Road Robinsonville, MS 38664Phone No.: 1-877-989-2783

Time:

Discrepancies:

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
Name☒ Tammy Red

Signature

11.7.08
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE:

31.50



Tonuca Landfill
3835 Boudrea Rd
Robinsonville, MS, 38864
Ph: 662 363 2282

Original
Ticket# 318590

Customer Name ERMINE_436 ERM INC_436
Ticket Date 01/07/2008
Payment type Credit Account
Manual tickets
Hauling tickets
Route
State Waste Code
Manifest 26012
Destination
CO
Profile 180789NS (BURNED DRUMS)
Generator 181-MEMPHIS/DEFENSE/DEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/07/2008 14:59:18 Scale1
Out 01/07/2008 14:59:18
Comments

Gross 93560 lb
Tare 30560 lb
Net 63000 lb
Tons 31.50

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDZ	Qty	UDM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		31.50	Tons				SHE
2 TRI-TRANSPORTATION 100		31.50	Tons				SHE

M. B.

Total Tax
Total Ticket

Driver's Signature

1000867
3080001**THE TUNICA LANDFILL**

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26013

GENERATORName of
Generator:

Memphis Defense Dept

Address:

1716 Dumas Ave
Memphis, TN 38114

Phone No.:

(216) 6399716

Waste ID. Code No.:

100709 MS

Special Handling Instructions and Additional Information:

Waste
Generation
Location:

TN4210070870

Address:

TN4210055

Phone No.:

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number:

318 561

Customer Number:

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description**Actual Quantity****Units****Container Type**

Bundled Drums

26

- ☐
- Pounds
-
- ☐
- Tons
-
- ☒
- Cu. Yd.
-
- ☐
- Cu. Ft.

- ☐
- Drum
- ☒
- Truck
-
- ☐
- Carton
- ☐
- Box
-
- ☐
- Bag
- ☐
- Other:
-
- Volume:

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Spencer
Generator Authorized Agent

Signature

117 108
Shipment Date**TRANSPORTER**

Truck No.:

RTO2

Transporter Name:

Mullins Transport

Address:

Transporter Phone No.:

Driver Name (print):

Vehicle License No./State:

Vehicle Certification:

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Signature

117 108
Pickup Date

Signature

117 108
Delivery Date**DESTINATION**

Site Name: Waste Management of Tunica Landfill, Inc.

Phone No.: 1-877-989-2783

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time:

Discrepancies:

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

L.I. Francis Boyd

Tammy Red

Name

Signature

117 108
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE:

27.85



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318561

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26013
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# RT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 12:51:07 Scale
Out 01/07/2008 12:52:53 Scale
Comments
Operator TAMMY
Inbound
Gross 86260 lb
Tare 30560 lb*
Net 55700 lb
Tons 27.85
Manual Weight

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.85	Tons				SHE
2 TRI-TRANSPORTATION 100		27.85	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1960



$\begin{matrix} 2x & 2x & 2x \\ \swarrow & \downarrow & \searrow \\ x^2 & 4x & 4x^2 \end{matrix}$
 $\begin{matrix} 12x^2 & 12x & 12x^2 \\ \swarrow & \downarrow & \searrow \\ 4x^2 & 8x & 4x^2 \end{matrix}$
 $\begin{matrix} 9x^2 & 6x & 9x^2 \\ \swarrow & \downarrow & \searrow \\ 3x^2 & 2x & 3x^2 \end{matrix}$

TOTAL TO DATE: 23.60



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2202

Original
Ticket# 318574

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account

Manual Ticket#
Hauling Ticket#

Route
State Waste Code 26014
Manifest
Destination

PO

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT (MEMPHIS DEFENSE DEPOT)

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S3
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 14:06:21 Scale
Out 01/07/2008 14:07:00 Scale1
Comments
Inbound Gross 79680 lb
Tare 32440 lb*
Net 47240 lb
Tons 23.62

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		23.62	Tons				SHE
2 TKT-TRANSPORTATION 100		23.62	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

Kevin Gregory S3

1000871



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26015

GENERATOR

Name of Generator: Memphis Defense DepotAddress: 1716 Penn Ave
Memphis, TN 38114Phone No.: (210) 6399716Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location: TN 4210070870Address: TN 101 053

Phone No.: (____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318578 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
Bored Drums R2701	26	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: _____ Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John S. Sney
 Generator Authorized Agent

[Signature]
 Signature

117 108
 Shipment Date

TRANSPORTER

Truck No.: R201Transporter Name: Matthew T. Tinsley

Address: _____

Transporter Phone No.: (____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]
 Signature

117 108
 Pickup Date

[Signature]
 Signature

117 108
 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Site Address: 6035 Bowdre Road Robinsonville, MS 38664Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
☒ Tammy Red
 Name

[Signature]
 Signature

117 108
 Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 29.99



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38864
Ph: 662 363 2282

Original
Ticket# 318578

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26015
Manifest
Destination
PO
Profile 100703MS (BURNED DRUMS)
Generator 161-MEMPHISDEFENSEDEPT. - MP-15 DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 14:12:24 Scale
Out 01/07/2008 14:13:03 Scale
Comments
Gross 89620 lb
Tare 23640 lb*
Net 59980 lb
Tons 29.99

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.99	Tons				SHE
2 TRT-TRANSPORTATION 100		29.99	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000873



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26016

GENERATOR

Name of Generator: Memphis Debarre Depot

Address: 1716 Dean Ave

Memphis, TN 38114

Phone No.: (210) 6399716

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste

Generation

Location: TN4210070870

Address: TN421053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459

Ticket Number: 318565

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums

26

☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Speer
Generator Authorized Agent

[Signature]
Signature

11/7/08
Shipment Date

TRANSPORTER

Truck No.: SI

Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

[Signature]
Signature

11/7/08
Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]
Signature

11/7/08
Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd

Name

X Tammy Red

[Signature]
Signature

11/7/08
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 25.24



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318565

Customer Name EZHINC 436 EZH INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26016
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# S01
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Volume

Time
In 01/07/2008 13:15:22 Scale1
Out 01/07/2008 13:15:22
Comments

Inbound

Gross 82240 lb
Tare 31760 lb
Net 50480 lb
Tons 25.24

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.24	Tons				SHE
2 TRI-TRANSPORTATION 100		25.24	Tons				SHE

Total Tax
Total Ticket

David Hand

01090874

1000875



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26017

GENERATOR

Name of Generator: Memphis Defense Depot

Waste Generation Location: TN 4210070870

Address: 1716 Dunn Ave
Memphis, TN 38114

Address: TNHW 053

Phone No.: (210) 6399716

Phone No.: ()

Waste ID. Code No.: 100709MS

Special Handling Instructions and Additional Information:

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318580

Customer Number:

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums

26

☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sweeney
Generator Authorized Agent

[Signature]
Signature

11.7.08
Shipment Date

TRANSPORTER

Truck No.: T701

Transporter Phone No.: ()

Transporter Name: M. Harris Trucking

Driver Name (print):

Address:

Vehicle License No./State:

Vehicle Certification:

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

EWELL Clayton
Signature Pickup Date 11.7.08

[Signature]
Signature Delivery Date 11.7.08

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.

Phone No.: 1-877-989-2783

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time:

Discrepancies:

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
Name

☒ Tammy Red
Name

[Signature]
Signature

11.7.08
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 24.94



Original
Ticket# 318580

Carrier	MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle#	TT01
Volume	

11-10-68

...

۱۰۰

சென்னை

15. 5. 1944

Profile 100789HS (BURNED DRUGS)

三

	01/01/2008	14:31:17	Scale1
01/01/2008	01/01/2008	01/01/2008	01/01/2008

117

1685-54

440

Not

1
2
3
4
5
6

2023-03-15

Q188

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.94	Tons				SHE
2 TRT-TRANSPORTATION 100		24.94	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

PHASE 3

1000876

1000877



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26018

GENERATOR

Name of Generator: Memphis Deleer Depot

Address: 716 Dunn Ave

Memphis, TN 38114

Phone No.: (210) 6399716

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location: 114210070870

Address: TNHW 053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 31582

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Down

26

☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
Generator Authorized Agent

[Signature]
Signature

117.08
Shipment Date

TRANSPORTER

Truck No.: T702

Transporter Name: McCluskey Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

[Signature]

Signature

117.08
Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]

Signature

117.08
Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd

☒ Tammy Red

Name

[Signature]
Signature

117.08
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldendust CONTRACTOR

TOTAL TO DATE: 25.02



Tunica Landfill
5035 Rowdre Rd
Robinsonville, MS, 38664
Ph: 562 363 2382

Original
Ticket# 318582

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26018
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 14:37:24 Scale
Out 01/07/2008 14:37:24 Scale
Comments

Inbound
Operator TERRY
Gross 78680 lb
Tare 28640 lb
Net 50040 lb
Tons 25.02

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.02	Tons				SHE
2 TRT-TRANSPORTATION 100		25.02	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

CP [Signature]

80001
1000879



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26019

GENERATOR

Name of Generator: Memphis Delance Depot

Address: 1716 Dean Ave
Memphis, TN 38114

Phone No.: (215) 6299716

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location: TN4210070890

Address: Nitro 57

Phone No.: (____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW 0720010459 Ticket Number: 318584 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
<u>Bored Drums</u>	<u>70</u>	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: _____ Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry Generator Authorized Agent
[Signature] Signature
1.17.08 Shipment Date

TRANSPORTER

Truck No.: TP04

Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature] Signature
1.17.08 Pickup Date

[Signature] Signature
1.17.08 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
☒ Tammy Red

Signature

Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 28.77



Tunica Landfill
6035 Boudre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318584

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26019
Manifest Destination
PG
Profile 100709HS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TTD4
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time In 01/07/2008 14:42:01 Scale Scale1
Out 01/07/2008 14:42:01
Comments
Operator TARRY TARRY
Inbound Gross 87180 lb
Tare 29640 lb
Net 57540 lb
Tons 28.77

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.77	Tons				QUI
2 TRT-TRANSPORTATION 100		28.77	Tons				QUI

Total Tax
Total Ticket

1000880



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Reprint
Ticket# 318595

Customer Name E2HINC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26020
Manifest
Destination
PO
Carrier MATTHEWSTRUCKIN STRAYHORN TRUCKING
Vehicle# S01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709HS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time	Scale	Operator	Inbound	Gross	81340 lb
In 01/07/2008 15:14:25	Scale1	T000Y		Tare	31760 lb
Out 01/07/2008 15:14:25		T000Y		Net	49580 lb
				Tons	24.79

Comments

CLOSE AT 2:00 PM ON JAN. 15th MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		24.79	Tons				SHE
2 TRT-TRANSPORTATION 100		24.79	Tons				SHE

David H. Hink

Driver's Signature

Total Tax
Total Ticket

1000882

1000883



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26021

GENERATOR

Name of Generator: Memphis Delta Depot

Address: 1716 Dunn Rd
Memphis TN 38114

Phone No.: (210) 6259716

Waste ID. Code No.: 100709MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location: IN4210070870

Address: TN H1053

Phone No.: (____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318593 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
Buried Drums	20	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: _____ Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John S. [Signature]
Generator Authorized Agent

[Signature]
Signature

117108
Shipment Date

TRANSPORTER

Truck No.: STC-2

Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

[Signature]
Signature

117108
Pickup Date

[Signature]
Signature

117108
Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.

Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Phone No.: 1-877-989-2783

Discrepancies: _____

Time: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd

☒ Tammy Red

Name

[Signature]
Signature

117108
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 26.58



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318593

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 25021
Manifest
Destination
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STD2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 15:08:39 Scale1
Out 01/07/2008 15:08:39
Comments

Inbound
Gross 87000 lb
Tare 33840 lb
Net 53160 lb
Tons 26.58

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.58	Tons				SHE
2 TRT-TRANSPORTATION 100		26.58	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

4020MS

8880001
1000884



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No TN 4210070570		Manifest Document No		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621557			
4. Generator's Phone 210 630-0712				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BORRISDALE MS 39004		10. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				WM Profile # 100706MS		14. Unit Wt/Vol 401 4T 000,25 Yb	
b.				WM Profile #			
c.				WM Profile #			
d.				WM Profile #			
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR# T701 Ticked # 318490 Tons 2815 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Seale Signature "On behalf of" [Signature] Month Day Year 01/02/98							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name EWELL CLAYTON Signature [Signature] Month Day Year 01/02/98							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Jimmy Red Signature [Signature] Month Day Year 1/7/98							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318490

Customer Name E2HINC 436 E2H INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621557
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/07/2008 08:22:49 Scale1
Out 01/07/2008 08:22:49
Comments

Inbound Gross 84700 lb
Tare 28400 lb
Net 56300 lb
Tons 28.15

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.15	Tons				SHE
2 TRI-TRANSPORTATION 100		28.15	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <i>TN 42100705701</i>		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 7716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621558			
4. Generator's Phone 210 633-9719				B. State Generator's ID <i>TNHW053</i>			
5. Transporter 1 Company Name <i>Mp Hews Trucking</i>				6. US EPA ID Number			
7. Transporter 2 Company Name				8. US EPA ID Number			
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD MEMPHIS TN 38114				10. US EPA ID Number			
				C. State Transporter's ID			
				D. Transporter's Phone			
				E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 383-2282			
11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit	
		No. Type		Quantity		Unit	
a. BURNED DRUMS							
WM Profile # 100708MS		<i>001 GT</i>		<i>44026</i>		<i>Y</i>	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information <i>TR# T702 Ticker # 318492 Tons 26.68</i>							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Seidman</i>				Signature "On behalf of" <i>[Signature]</i>		Month Day Year <i>01/27/08</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>CP [Signature]</i>				Signature <i>[Signature]</i>		Month Day Year <i>01/27/08</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name <i>Tammy Red</i>				Signature <i>Tammy Red</i>		Month Day Year <i>01/27/08</i>	



Tunica Landfill
6035 Powdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318492

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621550
Manifest
Destination
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 00000436
Gen EPA ID

Time
In 01/07/2008 08:31:26 Scale
Out 01/07/2008 08:31:26 Scale1
Comments
Operator TERRY
Inbound
Gross 82000 lb
Tare 20640 lb
Net 53360 lb
Tons 26.68

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.68	Tons				SHE
2 TRT-TRANSPORTATION 100		26.68	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000889



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM-1

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID # TN 4210070520		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 9716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA	
4. Generator's Phone 901 552 0710				B. State Generator TN 053	
5. Transporter 1 Company Name Matthews		US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address TUMCO LANDFILL 3015 PONDHOLE ROAD MEMPHIS TN 38114		10. US EPA ID Number		E. State Transporter's ID	
				F. Transporter's Phone	
				G. State Facility's ID	
				H. Facility's Phone 901 362 2700	
11. Description of Waste Materials		12. Containers No. Type		13. Total Quantity	
a. WM Profile # 100700MS		701 07 006 25 11		14. Unit Wt./Vol.	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					
J. Additional Descriptions for Materials Listed Above Landfill Solidification Bio Remediation				K. Disposal Location Cell Level Grid	
15. Special Handling Instructions and Additional Information Ticket # 318497 TONS 28.18 Purchase Order # EMERGENCY CONTACT:					
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Signature "On behalf of" [Signature] Month Day Year 01 10 00					
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature] Signature [Signature] Month Day Year 01 10 00					
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature] Signature [Signature] Month Day Year					
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.					
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Signature [Signature]					



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318497

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621559
Destination
PG
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/07/2008 08:41:45 Scale1
Out 01/07/2008 08:41:45
Comments
Operator TAMMY
Inbound
Gross 86000 lb
Tare 23640 lb
Net 56360 lb
Tons 28.18

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.18	Tons				SHE
2 TRT-TRANSPORTATION 100		28.18	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000891



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4121100201512101		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621560			
4. Generator's Phone 210 633-9719				B. State Generator's ID TN, TNHW 053			
5. Transporter 1 Company Name Matthews Trucking				C. State Transporter's ID			
6. US EPA ID Number				D. Transporter's Phone			
7. Transporter 2 Company Name				E. State Transporter's ID			
8. US EPA ID Number				F. Transporter's Phone			
9. Designated Facility Name and Site Address THE TUSCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204				G. State Facility's ID			
10. US EPA ID Number				H. Facility's Phone 662 363-2282			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				991 47		9925 W	
WM Profile # 100702MS							
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information Purchase Order # 12701 Ticket # 318499 TONS 28.45 EMERGENCY CONTACT							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seash				Signature "On behalf of"		Month Day Year 01/12/98	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Fred Thurmond				Signature		Month Day Year 01/12/98	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Timmy Red				Signature		Month Day Year 11/17/98	



Tunica Landfill
6035 Roudre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310499

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621560
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID
Profile 100700MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time Scale
In 01/07/2008 08:47:21 Scale1
Out 01/07/2008 08:47:21
Comments
Gross 86540 lb
Tare 23640 lb
Net 56300 lb
Tons 28.45

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UGM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		28.45	Tons				SHE
2 TRT-TRANSPORTATION 100		28.45	Tons				SHE

Total Tax
Total Ticket

1000892

1000893



NON-HAZARDOUS MANIFEST

CWM

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		Generator's US EPA ID #		Manifest Document No.		2 Page 1 of 1	
3 Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114				A Manifest Number WMNA			
4 Generator's Phone 210 839 8710				TNAH ETS			
5		6 US EPA ID Number		C State Transporter's ID			
7 Transporter 2 Company Name		8 US EPA ID Number		D Transporter's Phone			
9 Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD BOHNSDALE MS 38824		10 US EPA ID Number		E State Transporter's ID			
				F Transporter's Phone			
				G State Facility's ID			
				H Facility's Phone 662 383 2252			
11 Description of Waste Materials		12 Containers No. Type		13 Total Quantity		14 Unit wt./vol.	
a						I Misc. Comments	
b							
c							
d							
15 Special Handling Instructions and Additional Information - TRH STC2 - Tanker # 515500 Tons 27.07 Purchase Order # EMERGENCY CONTACT.				K Disposal Location Cell Level Grid			
16 GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Print Name				Signature "O"			
Month Day Year				Month Day Year			
17 Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day Year							
18 Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Month Day Year							
19 Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20 Facility Owner or Operator Certification of receipt of non-hazardous materials covered by this manifest Signature Date							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318502

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/07/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621561
Manifest
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100769MS (BURNED DRUMS)
Generator 101-REMPHIS DEFENSE DEPOT

Time In 01/07/2008 09:00:58 Scale 1
Out 01/07/2008 09:00:58
Comments
Inbound Gross 87980 lb
Tare 33840 lb
Net 54140 lb
Tons 27.07

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOH	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.07	Tons				SHE
2 TRI-TRANSPORTATION 100		27.07	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWMH

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4210079520		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1715 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621562			
4. Generator's Phone 210 639-0710				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38854				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 363-2782	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
a. BURIED DRUMS						I. Misc. Comments	
WM Profile # 100709MS				0101 OT 001026			
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TR# RT02 Ticket # 310508 Tons 27.54							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seaton				Signature "On behalf of" _____			
				Month Day Year			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name MOIL BOLEN				Signature _____			
				Month Day Year			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Tammy Reed				Signature _____			
				Month Day Year 11/17/01			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318508

Customer Name: E2HANC_1236 E2H INC_436
Ticket# Date: 01/07/2003

Payment Type: Credit Account

Mainline Ticket#

Handling Ticket#

Route

State Waste Code

Manifest# 18621562

Destination

PO

Profile

Generator: 1-7739X6 (BURIED DRUMS)

Generator: 1-1-MEMPHIS DEFENSE DEPOT

Operator

TARMY

TARMY

Code

27.54

27.54

27.54

27.54

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Gross 85640 lb
Tare 30560 lb
Net 55080 lb
Tons 27.54

Inbound
Gross
Tare
Net
Tons

Operator
TARMY
TARMY

Code

27.54

27.54

27.54

27.54

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.54	Tons				SHE
2 TRT-TRANSPORTATION 100		27.54	Tons				SHE

[Signature]

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN4410070520		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DURN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621563			
4. Generator's Phone 210 433-0719				B. State Generator's ID TN AW 053			
5. Transporter 1 Company Name Matthew Trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUSCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 800 383-2282	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
a. BURIED DRUMS				No. Type		Unit Wt/Vol	
WM Profile # 100700MS				001 0T		000 026	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TR# S1 Ticket 318511 TONS 20.24							
Purchase Order # _____				EMERGENCY CONTACT _____			
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Aerin Seash				Signature "On behalf of"		Month Day Year 10/1/97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name David H.				Signature		Month Day Year 10/1/97	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Sammy Reed				Signature		Month Day Year 11/7/98	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 316511

Customer Name ERM INC 436 E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621563
Destination
PO
Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# 501
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Time		Scale	Operator	Inbound	Gross	72280 lb	
In	01/07/2008 09:36:01	Scale1	TERRY		Tare	31760 lb	
Out	01/07/2008 09:36:01		TERRY		Net	40520 lb	
						Tons	20.26

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		20.26	Tons				SHE
2 TRT-TRANSPORTATION 100		20.26	Tons				SHE

David Hand

Driver's Signature

Total Tax
Total Ticket

1000898



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		Generator's US EPA ID No. TN4210070520	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114		A. Manifest Number WMNA 10621564		
4. Generator's Phone 210 833-9710		B. State Generator's ID TNHW 053		
5. Transporter 1 Company Name Matthews Trucking	6. US EPA ID Number	C. State Transporter's ID		
7. Transporter 2 Company Name	8. US EPA ID Number	D. Transporter's Phone		
9. Designated Facility Name and Site Address THE TURCKA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38834		E. State Transporter's ID		
10. US EPA ID Number		F. Transporter's Phone		
11. Description of Waste Materials BURIED DRUMS		G. State Facility's ID		
		H. Facility's Phone 682 383-2282		
		12. Containers No. Type	13. Total Quantity	14. Unit Wt./Vol
a. BURIED DRUMS				
WM Profile # 100709MS		201	07	00026 Y
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information TRH 7703 Ticket # 318517 Tons 29.42 Purchase Order # _____ EMERGENCY CONTACT.				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name Kevin Seem Signature "On behalf of" _____ Month Day Year 11 1987				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Ed. Jackson Signature _____ Month Day Year 10 10 07				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____				
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Tommy Red Signature Tommy Red Month Day Year 11 17 08				



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 39664
Ph: 662 363 2282

Original
Ticket# 318517

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621564
Manifest
Destination
PO
Profile 102709NS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT03
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/07/2008 09:54:12 Scale1
Out 01/07/2008 09:54:12
Comments

Inbound
Gross
Tare
Net
Tons

87780 lb
28940 lb
58840 lb
29.42

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.42	Tons				SHE
2 TRT-TRANSPORTATION 100		29.42	Tons				SHE

Total Tax
Total Ticket

Driver = Signature E.D. J...



NON-HAZARDOUS MANIFEST

CWM

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN4210070879		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621566	
4. Generator's Phone 210 630-0710						B. State Generator's ID TNHW053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 8035 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 662 333-2282	
11. Description of Waste Materials						12. Containers	
						No. Type	
a. BURIED DRUMS						13. Total Quantity	
WM Profile # 100708MS						14. Unit Wt/Vol	
						I. Misc. Comments	
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR# S3 Ticket # 318518 Tons 23.74							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Seal				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/10/2008	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Kevin Gregory S3				Signature <i>[Signature]</i>		Month Day Year 10/10/2008	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name Sammy Red				Signature <i>[Signature]</i>		Month Day Year 01/07/08	



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318518

Customer Name E2M INC 436 E2M INC 436

Ticket Date 01/07/2008

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route

State Waste Code

Manifest 10621566

Destination

PO

Profile 100702MS (BURNED DRUMS)

Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING

Vehicle# S3

Container

Driver

Check#

Billing # 0000436

Gen EPA ID

Volume

Time

Scale

Scale1

In 01/07/2008 10:05:16

Out 01/07/2008 10:05:16

Comments

Operator

TATARY

TATARY

Inbound

Gross

Tare

Net

Tons

79920 lb

32440 lb

47480 lb

23.74

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		23.74	Tons				SHE
2 TRT-TRANSPORTATION 100		23.74	Tons				SHE

Driver's Signature

Kevin Gregory

Total Tax
Total Ticket

1000902



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 421,007,0870		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621567			
4. Generator's Phone 210 830 9718				B. State Generator's ID TN HW 053			
5. Transporter 1 Company Name <i>Matthews Trucking</i>				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 862 363 2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS						14. Unit Wt./Vol.	
WM Profile # 100709005				001 07		00.026	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR # TT01 Ticket # 318524 Tons 31.94 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <i>Kevin Storch</i> Signature "On behalf of" <i>[Signature]</i> Month Day Year 10/10/708							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name EWELL CLAYTON Signature <i>[Signature]</i> Month Day Year 10/10/708							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year 10/10/708							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name <i>Jimmy Reed</i> Signature <i>[Signature]</i> Month Day Year 10/10/708							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318524

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621567
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID
Operator
TAMMY
TAMMY
Inbound
Gross 92280 lb
Tare 28400 lb
Net 63880 lb
Tons 31.94

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		31.94	Tons				SHE
2 TRT-TRANSPORTATION 100		31.94	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No TN4210070820		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DURN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621568			
4. Generator's Phone 210 839-9718				B. State Generator's ID TNHW053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 333-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURNED DRUMS				WM Profile # 100708MS		14. Unit Wt/Vol	
b. WM Profile #				15. Misc. Comments			
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TRK# 7704 Ticket# 318529 Tons 26.58 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name APRIL SPAIN				Signature "On behalf of" <i>[Signature]</i>		Month Day Year 10/10/08	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature]				Signature <i>[Signature]</i>		Month Day Year 10/10/08	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest Printed/Typed Name Timmy Red							
Signature <i>[Signature]</i>				Month Day Year 10/10/08			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318529

Customer Name ERM INC 436 E2M INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621568
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 10:30:16 Scale
Out 01/07/2008 10:30:16 Scale1
Comments

Inbound
Gross 82800 lb
Tare 29640 lb
Net 53160 lb
Tons 26.58

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.58	Tons				SHE
2 TRT-TRANSPORTATION 100		26.58	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 421 0070070		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621569			
4. Generator's Phone 210 639-0710				B. State Generator's ID TN HW 053			
5. Transporter 1 Company Name Matthews Trucking		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNICA LANDFILL 6055 BOWDRE ROAD DOVER, MS 38604		10. US EPA ID Number		G. State Facility's ID		H. Facility's Phone 662 383-2282	
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. BURIED DRUMS				WM Profile # 100709MS		14. Unit Wt/Vol 001 OT 60.2 G X	
b.				WM Profile #		I. Misc. Comments	
c.				WM Profile #			
d.				WM Profile #			
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information TR # 7702 Ticket # 318526 Tons 27.34 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name ROCK S. KRAVITZ Signature "On behalf of" _____ Month Day Year 10/17/98							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name P. Whitehead Signature _____ Month Day Year 10/17/98							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____							
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name Tommy Red Signature Tommy Red Month Day Year 10/17/98							



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318526

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 10621569
Manifest
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 101-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 10:21:40 Scale
Out 01/07/2008 10:22:25 Scale1
Comments
Operator TADRY
TADRY
* Manual Weight
Inbound Gross 83320 lb
Tare 28640 lb*
Net 54680 lb
Tons 27.34

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.34	Tons				SHE
2 TRI-TRANSPORTATION 100		27.34	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

CP [Signature]

1000909



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <i>TM 4210070870</i>		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621570			
4. Generator's Phone 210 632-0710				B. State Generator's ID <i>TNHW053</i>			
5. Transporter 1 Company Name <i>Matthews Trucking</i>				6. US EPA ID Number			
7. Transporter 2 Company Name				8. US EPA ID Number			
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BOONVILLE MS 38824				10. US EPA ID Number			
				C. State Transporter's ID			
				D. Transporter's Phone			
				E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 333-2282			
11. Description of Waste Materials				12. Containers		13. Total	
				No. Type		Quantity	
a. BURIED DRUMS						14. Unit	
WM Profile # 100708MS				<i>001 OT 00125</i>		<i>W</i>	
b. WM Profile #							
c. WM Profile #							
d. <i>RT01</i> WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information <i>TR # RT01 Ticket # 318532 Tons 29.22</i>							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name <i>Kevin Skowh</i>				Signature "On behalf of" <i>[Signature]</i>			
				Month Day Year <i>10/1/99</i>			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Lowell Thomas</i>				Signature <i>[Signature]</i>			
				Month Day Year <i>10/1/99</i>			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
				Month Day Year			
19. Certificate of Final Treatment/Disposal							
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest							
Printed/Typed Name <i>Johnny Red</i>				Signature <i>[Signature]</i>			
				Month Day Year <i>10/1/99</i>			

CWM - NHM - 1 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318532

Customer Name E2HINC 436 E2H INC 436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621570
Destination
PO
Profile 102709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check# 0000436
Billing # 0000436
Gen EPA ID

Time In 01/07/2008 10:40:31 Scale Scaled
Out 01/07/2008 10:40:31
Operator TAMMY
TAMMY
Inbound Gross 88000 lb
Tare 29640 lb
Net 58440 lb
Tons 29.22

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UDM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.22	Tons				SHE
2 TRI-TRANSPORTATION 100		29.22	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000911



NON-HAZARDOUS MANIFEST

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 4210070870		Manifest Document No.		2. Page 1 of 4	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1718 DUNN AVENUE MEMPHIS TN 38114						A. Manifest Number WMNA 10621571	
4. Generator's Phone 210 639-0719						B. State Generator's ID TN H2053	
5. Transporter 1 Company Name Matthews Trucking				6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD BIRMINGHAM AL 35204				10. US EPA ID Number		E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone 632 363-2282	
11. Description of Waste Materials						12. Containers No.	13. Total Quantity
a. BURIED DRUMS						Type	14. Unit Wt/Vol
WM Profile # 100702MS						001 CT	900.26 Y
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information TR # STL2 Ticket # 318535 Tons 24.96							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Sells				Signature <i>[Signature]</i>		Month Day Year 9/9/99	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name DANNY L. WILLARD				Signature <i>[Signature]</i>		Month Day Year 9/9/99	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Thomas J. Rod				Signature <i>[Signature]</i>		Month Day Year 9/10/98	

CWM - NHM - 4 - 5/97

#3 - TRANSPORTER #1 COPY



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318535

Customer Name E2RINC_436 E2M INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621571
Destination
PO
Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# STC2
Container
Driver
Check#
Billing # 0020436
Gen EPA ID

Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Time In 01/07/2008 11:03:56 Scale Scale1
Out 01/07/2008 11:03:56
Comments
Operator TAMPY TAMPY
Inbound
Gross 87760 lb
Tare 33840 lb
Net 53920 lb
Tons 26.96

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		26.96	Tons				SHE
2 TRT-TRANSPORTATION 100		26.96	Tons				SHE

Total Tax
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

CWM

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. TN 9210070876		Manifest Document No.		2. Page 1 of 9	
3. Generator's Name and Mailing Address MEMPHIS DEFENSE DEPOT 1716 DUNN AVENUE MEMPHIS TN 38114				A. Manifest Number WMNA 10621572			
4. Generator's Phone 210 639-9710				B. State Generator's ID TN H053			
5. Transporter 1 Company Name Matthew Trucking				6. US EPA ID Number			
7. Transporter 2 Company Name				8. US EPA ID Number			
9. Designated Facility Name and Site Address THE TUNCA LANDFILL 6035 BOWDRE ROAD ROBINSONVILLE MS 38924				10. US EPA ID Number			
				C. State Transporter's ID			
				D. Transporter's Phone			
				E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 662 383-2782			
11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit Wt./Vol	
a. BURIED DRUMS		No. Type				I. Misc. Comments	
WM Profile # 100708MS		601 CT		0.010126		Y	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above				K. Disposal Location			
Landfill _____ Solidification _____				Cell _____ Level _____			
Bio Remediation _____				Grid _____			
15. Special Handling Instructions and Additional Information TP # 31 Ticket 318543 TONS 21.55 Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name Kevin Jensen				Signature "On behalf of" [Signature]			
				Month Day Year 11 14 10			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name David Hill				Signature [Signature]			
				Month Day Year 11 14 10			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name Timothy Reed				Signature [Signature]			
				Month Day Year 10 07 03			



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318543

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/07/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 10621572
Destination
PG
Profile 100709MS (BURNED DRUMS)
Generator 101-REPHISDEFENSEDEPOT - BERNIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# 501
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/07/2008 11:24:10 Scale
Out 01/07/2008 11:24:10 Scale1
Comments

Gross 74860 lb
Tare 31760 lb
Net 43100 lb
Tons 21.55

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		21.55	Tons				SHE
2 TRT-TRANSPORTATION 100		21.55	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000915

1000001



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26001

GENERATOR

Name of Generator: Memphis Defence DepotAddress: 1716 Dunn Ave
Memphis, TN 38114Phone No.: (210) 639-9719Waste ID. Code No.: 100709MS

Special Handling Instructions and Additional Information: _____

Waste

Generation

Location: TN 4210070870Address: TN 4210053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459

Ticket Number: 318614

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Buried RT01
Drums

Actual Quantity

26

Units

- ☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

Container Type

- ☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
 Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sweeney
 Generator Authorized Agent

[Signature]
 Signature

01/10/08
 Shipment Date

TRANSPORTER

Truck No.: _____

Transporter Name: Matthew S Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Floyd Thorbeck
 Signature

01/10/08
 Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Floyd Thorbeck
 Signature

01/10/08
 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Site Address: 6035 Bowdre Road Robinsonville, MS 38664Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd☒ Jimmy Red

Name

[Signature]
 Signature

01/10/08
 Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 28.41



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318614

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/08/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 26001
Destination
PO
Profile 100703MS (BURNED DRUMS)
Generator 161-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# RT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time In 01/08/2008 07:40:04 Out 01/08/2008 07:40:04
Scale Scale1
Operator TERRY TERRY
Inbound Gross 85460 lb
Tare 23640 lb
Net 56820 lb
Tons 28.41

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		28.41	Tons				SHE
2 TRT-TRANSPORTATION 100		28.41	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

403WM

1000916

1600917

260004



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26002

GENERATOR

Name of Generator: Memphis Deference DepotAddress: 1716 Penn Ave
Memphis TN 38114Phone No.: (210) 639-9719Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location: TN 4210070870Address: TN HW 053

Phone No.: (_____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318616 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums26
☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
 Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John S. Smith
 Generator Authorized Agent

[Signature]
 Signature

8733
0108108
 Shipment Date

TRANSPORTER

Truck No.: _____

Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (_____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

EWELL CLAYTON
 Signature Pickup Date 8/18/08

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

EWELL CLAYTON
 Signature Delivery Date 8/18/08

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
 Name

☒ Tammy Red
 Name

[Signature]
 Signature

11.8.08
 Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 27.48



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318616

Customer Name E2HINC_436 E2H INC_436
Ticket Date 01/08/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26002
Manifest
Destination
PO
Profile 1007097MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT01
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time
In 01/08/2008 07:51:10 Scale
Out 01/08/2008 07:51:10 Scale1
Comments

Inbound Gross 83360 lb
Tare 28400 lb
Net 54960 lb
Tons 27.48

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.48	Tons				SHE
2 TRT-TRANSPORTATION 100		27.48	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000919

3100001



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26006

GENERATOR

Name of Generator: Memphis DeLeon DepotAddress: 1716 Dunn AveMemphis, TN 38114Phone No.: (712) 6399716Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste

Generation

Location: TN426070870Address: TN426053

Phone No.: (_____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318618

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

DeLeon 1BS
Bused Drums

26

☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.

☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sweeney
Generator Authorized Agent

[Signature]
Signature

11/8/08
61107108
Shipment Date

TRANSPORTER

Truck No.: T704Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (_____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Lawrence Scott
Signature 11/8/08
Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Lawrence Scott
Signature 11/8/08
Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Site Address: 6035 Bowdre Road Robinsonville, MS 38664Phone No.: 1-877-989-2783

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd

Name

☒ Tammy Red

Signature

Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 27.18



Tunica Landfill
5035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 310618

Customer Name E2M INC 436 E2M INC 436
Ticket Date 01/08/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 260006
Destination
PO
Profile 109703MS (BURNED DRUMS)
Generator 181-MEMPHIS DEFENSE DEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEW STRUCKIN STRAYHORN TRUCKING
Vehicle# TT04
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time In 01/08/2008 08:06:55 Scale Scale1
Out 01/08/2008 08:06:55
Operator TAMMY
TAMMY
Inbound
Gross 84000 lb
Tare 29640 lb
Net 54360 lb
Tons 27.18

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURNED DRUMS & INC 100		27.18	Tons				SHE
2 TRI-TRANSPORTATION 100		27.18	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000920
1000920

1000921
0300001

THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26007

GENERATOR

Name of Generator: Memphis Deleuca DepotAddress: 716 Dunn Ave.Memphis, TN 38114Phone No.: (210) 6399716Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste
Generation
Location:TN4210070870Address: TN HW053

Phone No.: (____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318617

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
Buried Drums	26	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: _____ Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
Generator Authorized Agent

Signature

Shipment Date

TRANSPORTER

Truck No.: T702Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Signature

Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Signature

Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☐ Francis Boyd
NameTammy Red

Signature

Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE:

27.62



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318617

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/08/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26007
Manifest Destination
Profile 100703MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale
In 01/08/2008 07:58:12 Scale1
Out 01/08/2008 07:58:12
Comments
Operator TAMMY
Inbound
Gross 83880 lb
Tare 28640 lb
Net 55240 lb
Tons 27.62

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		27.62	Tons				SHE
2 TRI-TRANSPORTATION 100		27.62	Tons				SHE

Total Tax
Total Ticket

CP W. [Signature]

Driver's Signature

1000922

1000923
9580001**THE TUNICA LANDFILL**

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

20023

GENERATORName of Generator: Memphis Police DeptAddress: 1716 Dean AveMemphis TN 38114Phone No.: (210) 6399716Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste

Generation

Location: TN4210070810Address: TN HCL 053

Phone No.: () _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318657 Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description**Actual Quantity****Units****Container Type**3 used Drums26☐ Pounds☐ Tons☒ Cu. Yd.☐ Cu. Ft.☐ Drum☐ Carton☐ Bag☒ Truck☐ Box☐ Other: _____

Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Spencer

Generator Authorized Agent

Signature

118108
Shipment Date**TRANSPORTER**Truck No.: STC-2Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: () _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

Danny J. Wilkins
Signature Pickup Date 118108

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Danny J. Wilkins
Signature Delivery Date 118108**DESTINATION**Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

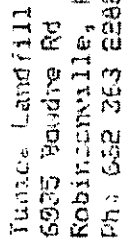
☒ Francis Boyd☐ Tammy Red

Name

Signature Francis Boyd01108108
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 2710



Original
Tape # 318657

Company Name	RENNING ASS E2H INC_436	Carrier	MATTHEW STRUCKIN	STRAYHORN TRUCKING
Phone/Fax	714 784 7500	Vehicle#	5102	Volume
Company Type	Credit Assn/Inc	Container		
Company Title		Driver		
Company Address		Check#		
Route		Filling @	2000436	
State		Gen EPA ID		

[illegible]

	Date	Time	From	To	Inbound	Gross Tare Net Tons
006	24-02-1960	10:35:43	FRANCIS	DECEMBER		80040 lb
007	24-02-1960	10:35:43	FRANCIS	DECEMBER		33840 lb
008	24-02-1960	10:35:43	FRANCIS	DECEMBER		54200 lb
						... 27.15

LOSE AT 2:00 PM ON JUN. 21st MARTIN LUTHER KING DAY

Product	Qty	UOM	Rate	Tax	Amount	Origin
UNION PACIFIC INC 100	22.00	Tons				SHE
UNION PACIFIC 100	22.00	Tons				SHE

Line	Description	Amount	Total Tax	Total Ticket
1	ADULT	10.00		
2	CHILD	5.00		
3	SENIOR	7.50		
4	GROUP	25.00		
5	TOTAL	47.50	9.50	57.00

Driver's Signature

METHODS

1000924

1000925



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26025

GENERATOR

Name of Generator: Memphis Defence DepotWaste Generation Location: TN4210070570Address: 1716 Dunn Ave
Memphis, TN 38114Address: TNHW053Phone No.: (210) 6399716

Phone No.: ()

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information:

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318681 Customer Number:

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description	Actual Quantity	Units	Container Type
<u>Buried Drums</u>	<u>26</u>	<input type="checkbox"/> Pounds <input type="checkbox"/> Tons <input checked="" type="checkbox"/> Cu. Yd. <input type="checkbox"/> Cu. Ft.	<input type="checkbox"/> Drum <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Carton <input type="checkbox"/> Box <input type="checkbox"/> Bag <input type="checkbox"/> Other: Volume:

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
 Generator Authorized Agent

[Signature]
 Signature

118108
 Shipment Date

TRANSPORTER

Truck No.: TT03

Transporter Phone No.: ()

Transporter Name: Matthews Trucking

Driver Name (print):

Address:

Vehicle License No./State:

Vehicle Certification:

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

E.D. Jack
 Signature

118108
 Pickup Date

E.D. Jack
 Signature

118108
 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time:

Discrepancies:

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☒ Francis Boyd
☐ Tammy Red
 Name

[Signature]
 Signature

118108
 Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 26025



WASTE MANAGEMENT
4033M
2010 JAN 21 15:38:56
2010 JAN 21 15:38:56

Original
Ticket# 318681

CARRIER MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# 1703 Volume
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

WASTE MANAGEMENT
2010 JAN 21 15:38:56
2010 JAN 21 15:38:56

Gross 87660 lb
Tare 28940 lb
Net 58720 lb
Tons 29.36

Inbound
Location
FRANCIS

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UCM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		29.36	Tons				SHE
2 TRI-TRANSPORTATION 100		29.36	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

4033M

1000926

1000927
3580001**THE TUNICA LANDFILL**

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26027

GENERATORName of Generator: Memphis Defense DepotAddress: 1716 Dean AveMemphis, TN 38114Phone No.: (210) 6399716Waste ID. Code No.: 100709MS

Special Handling Instructions and Additional Information: _____

Waste Generation Location:

TN4210070570Address: TN HW 053

Phone No.: (____) _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459 Ticket Number: 318671

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description**Actual Quantity****Units****Container Type**Buried Drums20☐ Pounds
☐ Tons
☒ Cu. Yd.
☐ Cu. Ft.☐ Drum ☒ Truck
☐ Carton ☐ Box
☐ Bag ☐ Other: _____
Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Spencer
Generator Authorized Agent

Signature

11/8/08
Shipment Date**TRANSPORTER**Truck No.: TT02Transporter Name: Matthews Trucking

Address: _____

Transporter Phone No.: (____) _____

Driver Name (print): _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

CP [Signature]
Signature11/8/08
Pickup Date

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

CP [Signature]
Signature11/8/08
Delivery Date**DESTINATION**Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

C. Francis Boyd
Name☐ Tammy Red

Signature

11/8/08
Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 2519



Tunica Landfill
6035 Bowdre Rd
Robinsonville, MS, 38664
Ph: 662 363 2282

Original
Ticket# 318671

Customer Name E2M INC 436 E2M INC_436
Ticket Date 01/08/2008
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 26027
Manifest 26027
Destination
PO
Profile 100709MS (BURNED DRUMS)
Generator 181-MEMPHISDEFENSEDEPOT MEMPHIS DEFENSE DEPOT

Carrier MATTHEWSTUCKIN STRAYHORN TRUCKING
Vehicle# TT02
Container
Driver
Check#
Billing # 0000436
Gen EPA ID

Time Scale Operator Inbound Gross Volume
In 01/08/2008 11:25:00 Scale1 FRANCIS 79020 lb
Out 01/08/2008 11:25:00 28640 lb
Net 50380 lb
Tons 25.19

Comments

CLOSE AT 2:00 PM ON JAN. 21st MARTIN LUTHER KING DAY

Product	LDX	Qty	UOM	Rate	Tax	Amount	Origin
1 BURIED DRUMS & INC 100		25.19	Tons				SHE
2 TRT-TRANSPORTATION 100		25.19	Tons				SHE

Total Tax
Total Ticket

Driver's Signature

1000929

3380001



THE TUNICA LANDFILL

A WASTE MANAGEMENT COMPANY

NON-HAZARDOUS WASTE MANIFEST

26030

GENERATOR

Name of Generator: Memphis Defense Depot

Waste

Generation

Location: TN4210070570Address: 1716 Dunn AveAddress: TN HW 053Memphis, TN 38114Phone No.: (210) 6399716

Phone No.: ()

Waste ID. Code No.: 100709 MS

Special Handling Instructions and Additional Information: _____

Waste Management of Tunica, Landfill, Inc. Permit # SW-0720010459

Ticket Number: 318665

Customer Number: _____

RESPONSIBLE AGENCY: Mississippi Dept. of Environmental Quality (601) 961-5171

Waste Description

Actual Quantity

Units

Container Type

Buried Drums20☐ Pounds☐ Tons☒ Cu. Yd.☐ Cu. Ft.☐ Drum☐ Carton☐ Bag☒ Truck☐ Box☐ Other: _____

Volume: _____

With my signature, I certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law or regulation, is not a hazardous waste as defined by 40 CFR 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

John Sperry
 Generator Authorized Agent

[Signature]
 Signature

118108
 Shipment Date

TRANSPORTER

Truck No.: RTO1

Transporter Phone No.: ()

Transporter Name: Matthews Trucking

Driver Name (print): _____

Address: _____

Vehicle License No./State: _____

Vehicle Certification: _____

With my signature, I certify that the above material was picked up at the Generator site listed above.

With my signature, I certify that the above named material was delivered without incident to the destination listed below.

Signature

EWELL CLAYTON
 Pickup Date

Signature

EWELL CLAYTON
 Delivery Date

DESTINATION

Site Name: Waste Management of Tunica Landfill, Inc.Phone No.: 1-877-989-2783Site Address: 6035 Bowdre Road Robinsonville, MS 38664

Time: _____

Discrepancies: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge, the foregoing is true and accurate.

☒ Francis Boyd☐ Tammy Red

Name

Signature

Receipt Date

White - LANDFILL Yellow - GENERATOR Pink - TRANSPORTER Goldenrod - CONTRACTOR

TOTAL TO DATE: 26.15

1000930

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FINAL PAGE

PART I

ADMINISTRATIVE RECORD

PART I

FINAL PAGE