

**OFF DEPOT ANNUAL GROUNDWATER
MONITORING REPORT - 2011
DUNN FIELD**

Defense Depot Memphis, Tennessee



Department of the Army



**Air Force Center for Engineering and the
Environment
Contract No. FA8903-08-D-8771
Task Order No. 0069**

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Prepared for:

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LIST OF ACRONYMS AND ABBREVIATIONS

AFCEE	Air Force Center for Environmental Excellence
AS/SVE	air sparging with soil vapor extraction
bgs	below ground surface
°C	degrees Celsius
cDCE	cis-1,2-Dichloroethene
CF	Chloroform
COV	Coefficient of Variation
CT	Carbon Tetrachloride
CVOC	Chlorinated Volatile Organic Compound
DCE	1,1-Dichloroethene
DDMT	Defense Depot Memphis, Tennessee
DQE	data quality evaluation
DQO	data quality objective
e ² M	engineering-environmental management
FSVE	Fluvial Soil Vapor Extraction
IAQ	Intermediate Aquifer
IRA	Interim Remedial Action
IRACR	Interim Remedial Action Completion Report
LCS	Laboratory Control Sample
LTM	Long-term Monitoring
MAQ	Memphis Aquifer
MAROS	Monitoring and Remediation Optimization System
MCL	maximum contaminant level
MI	Main Installation
msl	mean seal level
MW	Monitoring Well
NPL	National Priorities List
PCE	Tetrachloroethene
PDB	passive diffusion bag
PMW	Performance Monitoring Well
PRB	permeable reactive barrier
QC	Quality Control
RA	Remedial Action

LIST OF ACRONYMS AND ABBREVIATIONS
(Continued)

RAO	Remedial Action Objective
RA SAP	Remedial Action Sampling and Analysis Plan
RD	Remedial Design
RG	Remediation Goal
RL	Reporting Limit
ROD	Record of Decision
RW	Recovery Well
SVE	Soil Vapor Extraction
TA	Treatment Area
TC	Target Concentrations
TCA	1,1,2-Trichloroethane
TCE	Trichloroethene
tDCE	trans-1,2-Dichloroethene
TDEC	Tennessee Department of Environmental Conservation
TeCA	1,1,1,2-Tetrachloroethane
U.S.	United States
USEPA	United States Environmental Protection Agency
µg/L	Micrograms per liter
VC	Vinyl Chloride
VOCs	Volatile organic compound

1.0 INTRODUCTION

HDR has prepared this 2011 Annual Monitoring Report for Off Depot Groundwater at Dunn Field on Defense Depot Memphis, Tennessee (DDMT) under Contract FA8903-08-D-8771, Task Order 0069 to the Air Force Center for Engineering and the Environment (AFCEE). Off Depot groundwater monitoring includes performance monitoring and long term monitoring (LTM). Groundwater performance monitoring results are used to assess the effectiveness of the air sparging with soil vapor extraction (AS/SVE) system. LTM is used to document changes in plume concentrations, detect potential plume migration to off-site areas or into deeper aquifers, and track progress toward remediation goals (RGs). Groundwater monitoring was performed in accordance with the *Off Depot Groundwater Final Remedial Design, Rev. 1* (Off Depot Groundwater RD) (CH2M HILL, 2008), including the *Long-Term Groundwater Monitoring Plan* (LTM Plan) in Appendix C.

1.1 SITE LOCATION AND DESCRIPTION

DDMT is located in southeastern Memphis, Shelby County, Tennessee approximately 5 miles east of the Mississippi River and just northeast of Interstate 240 ([Figure 1](#)). DDMT originated as a military facility in the early 1940s; it received, warehoused, and distributed supplies common to all United States (U.S.) military services and some civil agencies located primarily in the southeastern U.S., Puerto Rico, and Panama. Stocked items included food; clothing; petroleum products; construction materials; and industrial, medical, and general supplies. In 1995, DDMT was placed on the list of the Department of Defense facilities to be closed under Base Realignment and Closure. Storage and distribution of material continued until the facility closed in September 1997.

DDMT covers approximately 642 acres and includes the Main Installation (MI) and Dunn Field. The MI contains approximately 578 acres with open storage areas, warehouses, former military family housing, and outdoor recreational areas. Dunn Field, which is located across Dunn Avenue from the north-northwest portion of the MI, contains approximately 64 acres and includes former mineral storage and waste disposal areas.

In 1992, DDMT was added to the National Priorities List (NPL) (57 Federal Register 47180 No. 199). Responsibility for environmental restoration activities at DDMT transferred from the Defense Logistics Agency to the Department of the Army in December 2010. The regulatory oversight agencies are U.S. Environmental Protection Agency (USEPA) Region 4 and the Tennessee Department of Environment and Conservation (TDEC). DDMT's USEPA Identification Number is TN4210020570.

1.2 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. Recharge to this unit is mainly from rainfall infiltration; discharge is to underlying units or laterally into adjacent stream channels. 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 (IAQ) from the fluvial deposits. The IAQ 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. 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 top of the Memphis Sand was identified at 255 feet bgs (elevation of 21 feet above msl) in MW-67, the first monitoring well (MW) completed in the Memphis Sand at DDMT. The Memphis aquifer (MAQ) 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 and Water, is located approximately two miles west of DDMT.

1.3 REMEDIAL ACTION

1.3.1 Interim Remedial Action

The *Record of Decision for Interim Remedial Action* was signed in April 1996, with the objective of hydraulic containment to prevent further contaminant plume migration and reduce contaminant mass in groundwater. The Interim Remedial Action (IRA) groundwater recovery system included 11 recovery wells (RWs) screened in the fluvial aquifer and located along the western boundary of Dunn Field. Based on reduction of chlorinated volatile organic compound (CVOC) concentrations in groundwater following implementation of the Dunn Field Source Areas remedial action (RA), five RWs were shutdown on in June 2008 and the remaining RWs were shutdown in January 2009. The IRA system was removed and the RWs abandoned in July 2010.

1.3.2 Record of Decision and Amendment

The *Memphis Depot Dunn Field Record of Decision* (Dunn Field ROD) (CH2M HILL, 2004) was finalized in April 2004. The selected remedy addresses surface soil, material within disposal sites and associated soil, and CVOCs in subsurface soil and groundwater. The RA objectives (RAOs) established in the Dunn Field ROD for groundwater are:

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

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

- Excavation, transportation, and disposal of soil and material contained within disposal sites based upon results from a pre-design investigation
- Soil vapor extraction (SVE) to reduce VOC concentrations in subsurface soils to levels that are protective of the intended land use and groundwater
- Injection of zero valent iron 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 and 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 remediation goals
- Implementation of land use controls, 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 groundwater well restrictions.

The selected remedies were modified through the *Dunn Field Record of Decision Amendment* (ROD Amendment) (e²M, 2009) approved in January 2009. The major changes were the use of AS/SVE instead of a PRB for the Off Depot groundwater plume and the addition of in situ thermal desorption to enhance SVE in the loess on Dunn Field. Construction of the selected remedies has been completed. The *Source Areas Interim Remedial Action Completion Report, Revision 1* (Source Areas IRACR) (HDR|e²M, 2009) was approved by USEPA and TDEC in November 2009. The *Preliminary Close Out Report* (USEPA, 2010) was approved in May 2010 and the DDMT NPL site status was revised to Construction Complete. The *Dunn Field Off Depot Groundwater Interim Remedial Action Completion Report, Revision 1* (Off Depot IRACR) (HDR, 2011a) was approved by USEPA in August 2011 and by TDEC in November 2011.

1.3.3 Remedial Action Operations

Two RA systems are currently operating at Dunn Field, the fluvial soil vapor extraction (FSVE) system in the Source Areas on Dunn Field and the AS/SVE system located in the Off Depot groundwater plume west of Dunn Field.

The FSVE system consists of two blowers connected to seven SVE wells with screened intervals at approximately 30 to 70 feet bgs. The FSVE system layout is shown on [Figure 2](#). System operations began in July 2007 and approximately 4,020 pounds of VOCs were removed through July 2011. The VOC concentration in the extracted vapor has decreased asymptotically to less than 1 part per million. The FSVE system was shutdown October 2010 to January 2011 for a rebound test and confirmation soil sampling to evaluate progress toward remediation goals. The soil sample results met RAOs and the FSVE system will be shutdown in July 2012; groundwater samples collected during LTM will be reviewed for rebound in groundwater concentrations.

The AS/SVE system consists of a compressor connected to 90 air sparge points at the base of the Fluvial aquifer and two blowers connected to 12 SVE wells with screened intervals at approximately 40 to 75

feet bgs. The AS/SVE system layout is shown on [Figure 3](#). System operations began in December 2009. Approximately 74 pounds of VOCs have been removed through September 2011 and CVOC concentrations within the plume passing through the treatment area (TA) are below the goal of 50 micrograms per liter ($\mu\text{g/L}$) for individual analytes. Further reduction to the remediation goals are to be achieved through natural attenuation.

1.4 PREVIOUS GROUNDWATER MONITORING

The Dunn Field ROD identified three CVOC 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 were detected in the central plume. The individual CVOCs with the highest concentrations are TeCA and TCE, with maximum concentrations up to 40,800 $\mu\text{g/L}$ for TeCA and 7,110 $\mu\text{g/L}$ for TCE (MW-73; October 2003).

Regular groundwater monitoring in the Dunn Field area at DDMT was performed as part of the IRA from 1999 through 2009. Beginning in 2010, groundwater monitoring was conducted in accordance with the Off Depot Groundwater RD and consisted of performance monitoring in the AS/SVE TA and LTM in the remainder of the plume. There were 36 monitoring wells used for performance monitoring and 58 monitoring wells used for LTM. Another 20 monitoring wells were used for water level measurements during LTM events.

The LTM plan classified the monitoring wells in three categories:

- Background – wells screened in the fluvial aquifer located along or outside of the Dunn Field boundary; located upgradient to or at a distance from contaminant plumes on Dunn Field; no (or only low-level) previous detections of site contaminants in well samples.
- Sentinel – wells screened within either the fluvial or intermediate aquifers adjacent to or within the window to the IAQ.

- Performance – wells screened in the fluvial aquifer; located within the limits of known contaminant plumes; or repeatedly have contaminants in samples; located in areas targeted for treatment during the RA.

The LTM plan established an initial sampling frequency (biennial, annual or semiannual) for 58 existing wells: biennial, annual and semiannual. The performance monitoring wells (PMWs) were sampled quarterly in 2010 and semiannually in 2011; the PMWs will be incorporated into LTM in 2012.

The initial year of AS/SVE operations and performance monitoring in 2010 were described in the Off Depot IRACR and LTM was described in *Off Depot Groundwater Annual Long-Term Monitoring Report-2010* (HDR, 2011b).

The Off Depot IRACR stated that the overall performance of the Off Depot RA in Year 1 was excellent based on system operating parameters and performance monitoring. The treatment goal for the AS/SVE system is to reduce groundwater concentrations downgradient of AS/SVE barrier below 50 µg/L for individual CVOCs. The goal was met in all 5 PMWs immediately downgradient of the AS/SVE barrier in June 2010. The highest total CVOC concentration in October 2009 pretreatment PMW samples was 4607 µg/L in MW-246; the concentration in MW-246 was reduced 99.7 percent to 13.5 µg/L in January 2011. In January 2011, CVOC concentrations in the Off Depot plume met the treatment goal of 50 µg/L for individual CVOCs in all but five PMWs, including all wells downgradient of the AS/SVE system. The highest total CVOC concentration in January 2011 PMW samples was 327 µg/L at MW-159, which is upgradient of the AS/SVE barrier.

As described in the ROD Amendment, the AS/SVE system in combination with natural attenuation processes is expected to reduce groundwater concentrations to maximum contaminant levels (MCLs) within a reasonable period of time. Based on the Off Depot treatment goal, individual CVOC concentrations in wells on Dunn Field are not to exceed 50 µg/L after RA unless the groundwater will pass through the Off Depot TA. The AS/SVE system will continue to operate until the influent (upgradient) concentrations from the Dunn Field plume do not exceed 50 µg/L for individual CVOCs. Only 3 of the 32 LTM wells sampled in 2010 contained individual CVOC concentrations above 50 µg/L; the highest concentrations were at MW-144 in the central portion of the plume, which contained TeCA at 150 µg/L and TCE at 109 µg/L.

Of the 32 Off Depot LTM wells sampled in 2010, 10 wells had primary CVOC concentrations above an MCL or above the TC for TeCA. Nine of the wells (MW-6, MW-15, MW-57, MW-87, and MW-225) are located in the central portion of the source areas; concentration limits were exceeded for TCE in six wells

(7.57 µg/L to 109 µg/L), TeCA in seven wells (2.67 µg/L to 150 µg/L) and CT in one well (6.71 µg/L). The tenth well is located northeast of Dunn Field and is within the plume originating from an off-site source northeast of Dunn Field; CVOC concentrations exceeded the MCLs for PCE (22.7 µg/L), TCE (20.4 µg/L) and DCE (22.7 µg/L).

A few changes were recommended in the 2010 Off Depot LTM report. Well MW-175, damaged during thermal SVE in 2008, was recommended for abandonment. Recommended sample frequencies were changed from annual to biennial at three background wells (MW-172, MW-178 and MW-187), from semiannual to annual at one performance well (MW-147) and from biennial to annual at three performance wells (MW-05, MW-91 and MW-184). The changes were implemented in 2011, except that MW-175 was omitted from LTM sampling but was not abandoned; abandonment is planned in 2012.

2.0 GROUNDWATER MONITORING

Groundwater monitoring activities during 2011 consisted of water level measurements and groundwater sampling of all PMWs in March-April and September and of all LTM wells in a biennial event in April. Field activities and laboratory analyses were performed in accordance with the *Remedial Action Sampling and Analysis Plan* (RA SAP) (MACTEC Engineering and Consulting, Inc., 2005).

The 57 LTM wells selected for periodic sampling are classified as background (9), performance (35) or sentinel (13) wells and assigned annual (31) or biennial (26) sampling frequencies. An additional 20 LTM wells are used for water level measurements only. The LTM wells are listed on [Table 1](#) and the locations are shown on [Figure 4](#). The 36 PMWs are listed on [Table 2](#) and the locations are shown on [Figure 5](#). The current well classification, sample frequency and 2011 sampling events are shown for LTM wells on [Table 3](#) and for PMWs on [Table 4](#).

2.1 FIELD ACTIVITIES

Groundwater levels were measured in all PMWs and LTM wells during each sample event. Measurements were made using Solinst Model 101 water level meters with electronic sensors and tapes graduated in 0.01-foot increments. The measurements were coordinated with those for sample events on the MI to provide site wide data for later use if needed. The water level measurements are shown on [Table 5](#). Water levels were not measured in a few wells during each event because of inaccessibility or other factors, but the data were sufficient for creating contour maps.

During the September sample event, the water level in MW-32 was measured at 20.6 feet bgs; upon further inspection the well was found to be blocked with soil near that depth. The casing had a break about 1 foot bgs where it appeared to have been pushed sideways; the cause of the movement was not apparent. The soil in MW-32 will be cleared and the well re-developed, if possible.

Groundwater samples were collected using either passive diffusion bags (PDBs) or low-flow purging methods. Water levels were measured approximately one month prior to sample collection. If saturated thickness of the well screen was greater than 5 feet, a PDB was installed, if not already present. If the saturated thickness was less than 5 feet, the well was selected for low-flow sampling.

When samples were collected using a PDB, a sample of water from the PDB removed from the well was transferred to 40-milliliter vials preserved with hydrochloric acid. Following sample collection, a new PDB was filled with de-ionized water and placed in the middle of the saturated section of well screen.

When samples were collected using bladder pumps and low-flow purging methods, dedicated Teflon[®] bladders and Teflon[®]-lined polyethylene tubing were used. The pumping rate at each well was monitored in order that the water levels not decline more than 4 inches (0.1 meter). Following sampling, the bladder and tubing for each well were placed in separate, sealed plastic bags and stored for future sampling events. Water quality parameters were measured at approximately 5 to 10 minute intervals during purging using a flow-through cell with a YSI 600XLM and a LaMotte 2020e turbidity meter. 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. 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, 3 percent for specific conductance, 10 percent for dissolved oxygen and less than 20 nephelometric turbidity units for turbidity. Temperatures were also measured and recorded, but not used as a stabilization parameter. All measurements were noted on the field sampling forms. Samples were collected in 40-milliliter vials preserved with hydrochloric acid when stabilization criteria were met or the field team leader approved the variance from the criteria.

Samples were sent to Microbac Laboratories in Marietta, Ohio for VOC analysis by Method SW8260B. The activities during each sampling event are summarized in the following sections.

2.1.1 March-April 2011

Water levels were checked in PMWs and LTM wells with thinner saturated zones on 1 March; all PMWs and 51 LTM wells were selected for sampling with PDBs, and 6 LTM wells were selected for low-flow sampling.

Groundwater samples were initially collected from PMWs and LTM wells on 28 and 29 March. HDR was notified of a problem with sample storage at the analytical laboratory, Microbac, on 7 April. A refrigerated storage unit at the laboratory malfunctioned and sample temperatures reached 9-19 degrees Celsius (°C), well above the required upper limit of 6°C. All LTM samples and 7 PMW samples were determined to be unusable. The affected samples were re-collected on 25 to 29 April by HDR with all sampling costs charged to Microbac.

2.1.1.1 LTM

Biennial groundwater samples were collected from all 57 LTM wells on 28 and 29 March and re-collected on 25 to 29 April. Samples were collected using PDBs in 51 LTM wells. PDB sample intervals are shown on [Table 6](#). Groundwater samples were collected using bladder pumps and low-flow purging

methods in 6 monitoring wells. The final stabilization measurements are shown on [Table 7](#). Stabilization criteria were met at all wells.

2.1.1.2 Performance Monitoring

Groundwater samples were collected from 36 PMWs on 28 March 2011; samples were re-collected at 7 PMWs on 25 April 2011. All samples were collected using PDBs; sample intervals are shown on [Table 8](#).

2.1.2 September 2011

Water levels were checked in PMWs with thinner saturated zones on 9 September 2011; all PMWs were selected for sampling with PDBs. No LTM wells were designated for sampling in September 2011.

Groundwater samples were collected from 36 PMWs. Samples were collected from 35 PMWs on 26-27 September using PDBs; sample intervals are shown on [Table 9](#). The PDB in MW-160 was empty when brought to the surface. The groundwater sample from MW-160 was collected on 27 September using a bladder pump and low-flow purging. The stabilization criteria were met after approximately 1 hour of purging; the final stabilization measurements are shown on [Table 10](#).

2.2 WASTE DISPOSAL

The waste generated during groundwater sampling was classified as either non-investigative waste or investigation-derived waste. Non-investigative waste, such as packaging materials, personal protective equipment, disposable sampling supplies, and other inert refuse, was collected and placed in a designated collection bin for disposal at a municipal landfill.

The groundwater from purging and wastewater from equipment decontamination was collected in 5-gallon buckets with lids and added to the FSVE condensate water storage tank on Dunn Field. When the storage tank nears capacity, a waste water sample will be collected and submitted for laboratory analysis prior to discharge.

3.0 SUMMARY OF MONITORING RESULTS

3.1 HYDROGEOLOGY

Water level measurements for the 2011 Off Depot events are shown on [Table 5](#). Groundwater contour maps for each event are shown on [Figures 6](#) and [7](#). The groundwater elevation contour maps are similar. Groundwater flow is generally to the west on Dunn Field. The maps show a trough in groundwater elevations approximately 1,000 feet west of Dunn Field, with flow apparently diverging to the north and south. The AS/SVE system is located on the eastern side of the trough

Groundwater elevations in the fluvial aquifer are highest northeast of Dunn Field (MW-65: 257.29 feet mean seal level [msl] in March and 250.34 msl in September) and decrease toward the trough west of Dunn Field (MW-165: 218.32 feet msl in March and 218.33 feet msl in September). The spatial variation in water levels in the fluvial aquifer monitoring wells is primarily due to the elevation of the underlying clay of the Jackson Formation/Upper Claiborne Group.

The groundwater elevations in IAQ wells away from the ‘windows’ providing connection with the fluvial aquifer were approximately 167-168 feet msl in March and 160-162 feet msl in September. The groundwater elevation in MW-67, which is screened in the Memphis Sand, was approximately 168.4 feet msl in March and 160.1 feet in September.

3.2 DATA QUALITY EVALUATION

Data collected during the sampling events in March, April and September 2011 were reviewed based on guidelines in the RA SAP. The review process was performed by an independent data validation contractor, Diane Short and Associates, Inc. Based on the review and the project data quality objectives (DQOs), the data are acceptable and usable. No data were rejected. The complete analytical results with data quality evaluation (DQE) flags are presented in [Appendix A](#).

There were qualifications of VOC data, with the primary causes of the qualified data described below.

- Rinsate blank contamination resulted in a number of qualifications (1,4-dichlorobenzene in 20 samples, CF in 11 samples and acetone in four samples) in the April LTM event. The detections in the associated samples were less than 5x the blank; the results are qualified as B.
- A number of samples had high associated laboratory control sample (LCS) recoveries and other samples had low LCS recoveries in all three events. When a high recovery is associated with a

non-detect, no qualifier is added since the indicated bias is high. When a low recovery is associated with a non-detect, the result is qualified as estimated UJ. When the target is detected with either a high or low LCS recovery, the result is qualified as estimated J. The analytes that were recovered high or low were qualified accordingly.

- Bromomethane and dichlorodifluoromethane were non-detect and qualified as estimated UJ in one sample (MW-70-ODPM-8) in the March-April PM event based on matrix spike/matrix spike duplicate recovery.
- Any result reported below the reporting limit (RL) but above the method detection limit was flagged “J” and considered an estimated result (unless overridden by other quality control [QC] flags).

Overall, the VOC data from the three events met project DQOs and were determined to be sufficient to support the evaluation of RA. The complete DQE for 2011 Off Depot groundwater monitoring is provided in [Appendix B](#).

3.3 ANALYTICAL RESULTS

The complete analytical results are shown in [Appendix A](#). Summary tables for each sampling event list the analytical results for the primary CVOCs detected at Dunn Field: CT, CF, DCE, tDCE, cDCE, TeCA, PCE, TCA, and TCE and for vinyl chloride (VC), a significant CVOC degradation product. The MCLs and groundwater TCs from the Dunn Field ROD are also shown on the summary tables.

3.3.1 March-April 2011

3.3.1.1 LTM

Groundwater samples were collected from all 57 LTM wells for the biennial event in April 2011. [Table 11](#) lists the analytical results for the primary CVOCs and for other VOCs detected above the RL in one or more samples. Ten VOCs were detected above RLs. A summary of the primary CVOC results is provided on [Table 12](#).

Total CVOC concentrations continue to decrease in the Off Depot plume. The highest total CVOC concentration in the LTM wells was 69.4 µg/L in MW-144, a reduction from 264 µg/L in the previous sample from April 2010. All LTM wells met the active treatment goal of individual CVOC concentrations below 50 µg/L.

3.3.1.2 Performance Monitoring

Groundwater samples were collected from all 36 PMWs in March-April 2011. [Table 13](#) lists the analytical results for the primary CVOCs and for other VOCs detected above the RL in one or more samples. Eleven VOCs were detected above RLs. A summary of the primary CVOC results is provided on [Table 14](#).

The active treatment goal of individual CVOC concentrations below 50 µg/L was met in all but four PMWs: MW-149 (CF at 75.2 µg/L), MW-159 (TCE at 232 µg/L and cDCE at 50.7 µg/L), MW-166 (TCE at 129 µg/L) and MW-165A (TeCA at 79 µg/L). The highest total CVOC concentrations in the PMWs was 364 µg/L in MW-159, a reduction from 726 µg/L in March 2010. The total CVOC concentration in MW-165A increased to 93.8 µg/L from 39.4 µg/L in January 2011; the increase may be due to reduced AS/SVE system operations or plume diversion around the southwest end of the system. However, plume diversion does not appear to be significant because total CVOC concentrations in MW-166 and MW-166A at the southern edge of the TA decreased to 183 µg/L and 73.5 µg/L from 205 µg/L and 123 µg/L in January 2011. In addition, total CVOC concentrations at MW-247, which had increased to 60.4 µg/L in January 2011 possibly due to the reduced system operations, decreased to 33 µg/L.

3.3.2 September 2011

No LTM wells were designated for sampling in September 2011. Groundwater samples were collected from all 36 PMWs in September 2011. [Table 15](#) lists the analytical results for the primary CVOCs and for other VOCs detected above the RL in one or more samples. Eleven VOCs were detected above RLs. A summary of the primary CVOC results is provided on [Table 16](#).

The active treatment goal of individual CVOC concentrations below 50 µg/L was met in all but three PMWs: MW-159 (TCE at 193 µg/L), MW-166 (TCE at 50.2 µg/L and CF at 67.5 µg/L) and MW-166A (CF at 54.4 µg/L). The highest total CVOC concentrations in the PMWs was 311 µg/L in MW-159, a further reduction from March. The total CVOC concentration in MW-166 at the southern edge of the TA and in the area of potential plume diversion decreased to 147 µg/L from 183 µg/L in March. Total CVOC concentrations at MW-247 decreased to 10.8 µg/L in September.

3.4 PLUME MAPS

Total CVOC concentrations for the March-April and September sample events are shown on [Figures 8](#) and [9](#). The March-April results include wells sampled for both the LTM and performance monitoring

events; only PMWs were sampled in September. The total CVOC concentrations demonstrate continued reduction in the Off Depot plume due to the Source Areas and Off Depot RAs. The 50 µg/L contour for total CVOCs provides a quick indication of the progress in meeting the active treatment goal of individual CVOC concentrations below 50 µg/L. Only a few wells in the vicinity of the AS/SVE treatment system have total CVOC concentrations well above 50 µg/L, and total CVOC concentrations decreased from March to September 2011. The 50 µg/L isopleth on [Figure 9](#) indicates potential CVOC migration to the south based on the increased concentration in MW-249; however, the concentration is low (37.8 µg/L) and LTM wells are located further south to monitor continued migration.

Concentrations and isopleths for the primary CVOCs detected most frequently (TeCA, PCE, TCE, DCE, cDCE, CT and CF) are shown on [Figures 10 to 16](#), respectively. Each figure includes a 50 µg/L isopleth to show where the active treatment objective has not been met and an isopleth at both the TC and MCL, where applicable, to show where that RAO has not been met. TeCA ([Figure 10](#)) and TCE ([Figure 12](#)) are the only CVOCs with significant areas above the MCL or TC.

3.5 WELL CLASSIFICATION REVIEW

Currently, 57 wells are included in Off Depot LTM. The current well classifications are shown on [Table 1](#): 9 background wells, 13 sentinel wells and 35 performance wells. Performance monitoring near the AS/SVE system incorporates 36 additional wells; these PMWs will be incorporated in LTM in 2012. Analytical results for the individual well classifications in the 2011 LTM events are summarized in the following sections.

Historical analytical results for the primary CVOCs in the LTM wells and PMWs are provided in [Appendix C](#). Time trend plots for primary CVOCs detected above MCLs or the TC for TeCA in LTM wells and PMWs are provided in [Appendix D](#); where multiple sample results were available for a sampling event, the higher result was plotted.

3.5.1 Background Wells

There are 9 LTM background wells screened in the fluvial aquifer located along or outside of the Dunn Field boundary; upgradient to or at a distance from contaminant plumes on Dunn Field; and with no or low previous detections of primary CVOCs. All background wells were sampled in April 2011. Primary CVOCs were detected above the RL in three wells; CF in MW-13 and MW-178, and DCE, PCE and TCE in MW-51. The DCE and TCE concentrations exceeded their MCLs in MW-51, which is located north of Dunn Field and within the plume originating from an off-site source northeast of Dunn Field.

3.5.2 Sentinel Wells

There are 13 LTM sentinel wells screened within either the fluvial or intermediate aquifers adjacent to or within a window. All sentinel wells were sampled in April 2011. Primary CVOCs were detected above the RL in three wells; DCE in MW-237 and MW-239, and TCE in MW-240. No concentrations were above the MCL.

3.5.3 Performance Wells

There are 35 LTM performance wells screened in the fluvial aquifer and within the limits of groundwater plumes. All performance wells were sampled in April 2011. Primary CVOCs were detected above RLs in 22 performance wells. Concentrations exceeded the MCL for TCE and the TC for TeCA in 4 wells: MW-32, MW-144, MW-184 and MW-190.

3.5.4 PMWs

There are 36 PMWs, 33 screened in the fluvial aquifer and 3 screened in the intermediate aquifer. All PMWs were sampled in March-April and September 2011.

In March-April, primary CVOCs were detected above RLs in 26 of the 33 wells screened in the fluvial aquifer and in 1 of the 3 wells screened in the intermediate aquifer. Concentrations exceeded their MCLs and/or the TC for TeCA in 19 fluvial aquifer wells; additional information is provided in [Table 14](#). Concentrations were not above an MCL or the TC for TeCA in the intermediate aquifer well.

In September, primary CVOCs were detected above RLs in 25 of the 33 wells screened in the fluvial aquifer and in 1 of the 3 wells screened in the intermediate aquifer. Concentrations exceeded their MCLs and/or the TC for TeCA in 16 fluvial aquifer wells; additional information is provided in [Table 16](#). Concentrations in four of the fluvial aquifer wells (MW-54, MW-155, MW-157 and MW-242) decreased below the MCLs or TC from March-April to September while the concentration increased above the TC for TeCA in one well (MW-244). Concentrations were not above an MCL or the TC for TeCA in the IAQ well.

3.6 TREND ANALYSIS

Concentration trends were assessed for available groundwater analytical results for LTM wells and PMWs from January 2004 through September 2011 using the Mann-Kendall test. The Mann-Kendall test does not require any assumptions as to the statistical distribution of the data and can be used with data sets which include irregular sampling intervals and missing data. The analysis was performed using the

Mann-Kendall module within the Monitoring and Remediation Optimization System (MAROS) software version 2.2 developed by AFCEE. The Mann-Kendall trend evaluation using MAROS relies on three statistical metrics: the Mann-Kendall statistic (S), the coefficient of variation (COV) and the confidence factor (CF).

S measures the trend in the data. Positive values indicate an increase in constituent concentrations over time, whereas negative values indicate a decrease in constituent concentrations over time. The strength of the trend is proportional to the magnitude of S (i.e., large magnitudes indicate a strong trend).

COV is a statistical measure of how the individual data points vary about the mean value; it is defined as the standard deviation divided by the average. Values less than or near 1.00 indicate that the data form a relatively close group about the mean value. Values larger than 1.00 indicate that the data show a greater degree of scatter about the mean. CF is the statistical probability that the constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$).

The Concentration Trend for each well is determined according to the following rules:

Mann-Kendall Statistic	Confidence in Trend	Concentration Trend
$S > 0$	$> 95\%$	Increasing
$S > 0$	90 - 95%	Probably Increasing
$S > 0$	$< 90\%$	No Trend
$S \leq 0$	$< 90\%$ and $COV \geq 1$	No Trend
$S \leq 0$	$< 90\%$ and $COV < 1$	Stable
$S < 0$	90 - 95%	Probably Decreasing
$S < 0$	95%	Decreasing

If there are less than four sample results, the trend evaluation cannot be performed and the trend is listed as Insufficient Data (N/A). If the analyte is below the detection limit for all samples, the trend is listed as Not Detected (ND).

The Mann-Kendall analysis was run for the 93 Off Depot LTM wells and PMWs using analytical results for TeCA, PCE, TCE, DCE, CT and CF, the six CVOCs most commonly detected above TCs in the wells. The results of the Mann-Kendall analysis are shown on [Tables 17](#) through [22](#). The tables present the statistical metrics for each well, the concentration trend, the number of sample rounds and the number of samples with detects. In addition, the maximum and minimum analytical results for the review period are shown.

The results are summarized below for background wells, sentinel wells, performance wells and PMWs. The Insufficient Data column includes wells with less than four sample analyses or with all analyses below detection limits; non-detect results were the most common reason as shown on [Tables 17](#) through [22](#), The sentinel wells include the 13 LTM sentinel wells and the 3 PMWs installed in the IAQ.

Background Wells

	Total Locations	Insufficient Data	Increasing/ Probably Increasing	Stable/ No Trend	Decreasing/ Probably Decreasing
TeCA	9	5	0	4	0
PCE	9	1	0	5	3
TCE	9	2	1	2	4
DCE	9	7	0	0	2
CT	9	6	0	3	0
CF	9	3	1	4	1

Sentinel Wells

	Total Locations	Insufficient Data	Increasing/ Probably Increasing	Stable/ No Trend	Decreasing/ Probably Decreasing
TeCA	16	11	0	5	0
PCE	16	11	0	4	1
TCE	16	9	0	5	2
DCE	16	10	0	3	3
CT	16	15	0	1	0
CF	16	8	0	6	2

Performance Wells

	Total Locations	Insufficient Data	Increasing/ Probably Increasing	Stable/ No Trend	Decreasing/ Probably Decreasing
TeCA	35	6	0	13	16
PCE	35	4	1	11	19
TCE	35	2	0	9	24
DCE	35	29	0	5	1
CT	35	13	1	10	11
CF	35	3	1	20	11

PMWs

	Total Locations	Insufficient Data	Increasing/ Probably Increasing	Stable/ No Trend	Decreasing/ Probably Decreasing
TeCA	33	0	5	6	22
PCE	33	2	1	9	21
TCE	33	1	4	4	24
DCE	33	20	2	8	3
CT	33	10	1	5	17
CF	33	1	1	10	21

Few LTM wells or PMWs had increasing/probably increasing trends. The majority of sentinel wells had insufficient data due to few CVOC concentrations above the RL and the majority of background wells had either stable/no trend or insufficient data. LTM performance wells and PMWs showed the most decreasing/probably decreasing trends, due to the Source Areas and Off Depot RAs. Increasing trends were reported at four wells for TeCA (MW-151, MW-165A, MW-166 and MW-166A) and for TCE (MW-151, MW-166, MW-166A and MW-249). All except MW-249 are located near the western end of the AS/SVE system and the trends likely reflect plume diversion around the system. The concentrations are relatively low; concentrations have exceeded 50 µg/L in MW-165 (TeCA at a maximum of 104 µg/L in June 2010), MW-166 (TCE at a maximum of 223 µg/L in September 2010) and MW-166A (TCE at a maximum of 85.9 µg/L in January 2011); the latest concentrations at these three wells have decreased to

less than 50 µg/L except at MW-166 (TCE at 50.2 µg/L). MW-249, which is located south of the AS/SVE system, only increased in the latest sample (TCE at 12.4 µg/L in September 2011).

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

The RAs at Dunn Field have resulted in continued, significant reduction of CVOC concentrations in groundwater, as seen in total CVOC plume maps for April 2007, April 2009, March 2010 and March 2011 shown in [Figure 17](#). The highest total CVOC concentration in the Off Depot monitoring wells has decreased continually from 12,219 µg/L in April 2007 to 311 µg/L in September 2011.

As described in the ROD Amendment, the active Off Depot remedy is to reduce individual CVOC concentrations to 50 µg/L or less. The AS/SVE system in combination with natural attenuation processes is expected to reduce groundwater concentrations to MCLs within a reasonable period of time. Based on the Off Depot treatment goal, individual CVOC concentrations in wells on Dunn Field are not to exceed 50 µg/L after RA unless the groundwater will pass through the Off Depot TA. The AS/SVE system will continue to operate until the influent (upgradient) concentrations from the Dunn Field plume do not exceed 50 µg/L for individual CVOCs.

All of the LTM wells were sampled for the biennial event in April 2011 and none contained individual CVOC concentrations above 50 µg/L. Only four PMWs exceeded 50 µg/L for individual CVOCs in the March-April samples and only three PMWs exceeded the treatment goal in September 2011.

The great majority of LTM wells and PMWs had stable/no trend or decreasing/probably decreasing trends indicating the success of RA on Dunn Field and in off depot groundwater. Increasing trends at a few wells (MW-151, MW-165A, MW-166 and MW-166A) indicate potential plume diversion around the southern end of the AS/SVE, but the concentrations are relatively low and any diversion appears to be limited; changes to AS/SVE system operations are not recommended.

Due to the presence of multiple CVOCs in the plumes within and immediately downgradient of Dunn Field, the Dunn Field ROD established RGs for groundwater based on a target cumulative risk level of 1 in 10,000 (1×10^{-4}) and a Hazard Index of 1.0. The final RGs may vary based on the individual concentration of each CVOC in a compliance well; however, they will not exceed MCL or nonzero MCL goal levels.

All 57 Off Depot LTM wells were sampled in April 2011, and five wells had primary CVOC concentrations above an MCL or the TC for TeCA. Four of the wells (MW-32, MW-144, MW-184 and MW-190) are located west of Dunn Field in the central portion of the Off Depot plume; CVOC

concentrations in all four wells exceeded the MCL for TCE (6.92 µg/L to 43.2 µg/L) and the TC for TeCA (2.36 µg/L to 24.1 µg/L). The fifth well (MW-51) is located north of Dunn Field, within the plume originating from an off-site source northeast of Dunn Field; CVOC concentrations exceeded the MCLs for TCE (8.84 µg/L) and DCE (13.9 µg/L).

All 36 PMWs were sampled in March-April and September 2011. In March-April, an MCL or the TC for TeCA was exceeded for one or more CVOCs in 20 wells: TeCA (18 wells), TCA (1 well), DCE (1 well), CT (1 well), PCE (1 well), TCE (15 wells) and VC (1 well). In September, an MCL or the TC for TeCA was exceeded for one or more CVOCs in 17 wells: TeCA (15 wells), TCA (1 well), DCE (1 well), CT (1 well), PCE (1 well), TCE (13 wells) and VC (1 well). In both sample events, TeCA and/or TCE was one of the exceedances in each well. The highest concentrations reported for each CVOC are shown on [Tables 14 and 16](#).

Concentrations and isopleths for the primary CVOCs shown on [Figures 10 to 16](#) show the extent to which the active treatment objective has been met and where concentration exceed the MCL or TC. As noted in the discussion of analytical results, only TeCA and TCE are found above the cleanup goals in multiple wells; the highest concentrations are in the area immediately upgradient of the AS/SVE TA with the concentrations and area decreasing in each successive sample event.

4.2 LTM RECOMMENDATIONS

Historical results were reviewed for all wells, including the water level only wells, and 27 wells are recommended for abandonment. The wells and rationale for abandonment are listed on [Table 23](#); the locations are shown on [Figure 18](#). The recommendations are based on the following criteria from the Off Depot LTM plan:

1. The MW is redundant: duplicates information; not in the flow pathway of on-coming plumes and not required to establish background; or analytical data will have no clear, reasonable use in future decision making.
2. The MW has sustained damage and cannot be repaired, or an object that cannot be removed has become lodged in the MW.
3. The MW was installed for a specific reason that no longer applies.

The remaining 87 LTM wells were reviewed in accordance with the LTM plan for classification and sample frequency. The PMWs will be incorporated into LTM in 2012 and will be classified as performance wells, except the PMWs screened in the IAQ which will be classified as sentinel wells. The

water level only wells will also be incorporated into LTM with appropriate sample frequencies. The LTM wells for 2012 are listed on [Table 24](#) and the locations are shown on [Figure 18](#).

The well classifications for 2011 included 21 background wells, with 9 wells sampled biennially and 12 wells used for water levels only. Nine background wells are listed on [Table 23](#) for abandonment; the remainder will be assigned a sample frequency. Of these remaining background wells, four wells (MW-08, MW-129, MW-130 and MW-230), located on or bordering the northeast section of Dunn Field, have historically had moderate concentrations (up to 200 µg/L) of PCE, TCE and DCE. These concentrations are attributed to an off-site source(s) upgradient of Dunn Field and unrelated to past operations at DDMT; source investigations have been performed by USEPA and TDEC without definitive results. Because of the elevated CVOC concentrations and the attribution to an upgradient source, these wells will be classified ‘Background-NE’. In addition, MW-07 is recommended to be reclassified from Performance to Background-NE because it is on the northern boundary of Dunn Field near these four wells, has similar concentrations and is upgradient to the identified source areas on Dunn Field.

The 2012 LTM wells are classified as Background (8), Background-NE (5), Performance (51), Performance-FSVE (14) or Sentinel (9) wells. The Performance-FSVE wells are LTM Performance wells selected for rebound monitoring after the FSVE system is shut down.

Each LTM well was reviewed in accordance with the guidelines in the Off Depot LTM plan and the wells were assigned semiannual (42), annual (33) or biennial (12) sample frequencies. The well classification, sample frequency and 2012 sampling events are shown on [Table 25](#). The general guidelines for each classification are listed below.

The background wells will be sampled as follows:

- Wells with results below MCLs in the last four events will be sampled in biennial events: MW-13, MW-154, MW-167, MW-187.
- Wells with results above MCLs in one of the last four events will be sampled in annual events: MW-04, MW-07, MW-129, MW-130, MW-230.
- Well MW-28 has not been sampled since 1996 and will be sampled semiannually in 2012-2013.
- Wells MW-08, MW-80 and MW-126 have not been sampled since 2007 and will be sampled in the 2012 annual event; the frequency will be re-evaluated for 2013.

All the sentinel wells have had results below MCLs for at least the last four events. The wells will be sampled as follows:

- Wells at significant distance from performance wells exceeding MCLs will be sampled in biennial events: MW-67, MW-169, MW-170, MW-171.
- Wells near performance wells exceeding MCLs will be sampled in annual events: MW-182, MW-235, MW-237, MW-250, MW-251.

The performance wells will be sampled as follows:

- Wells with results above MCLs in one or more of the last four events and wells selected for FSVE system rebound monitoring will be sampled in semiannual events.
- Wells with results below MCLs in the last four sample events will be sampled in annual events.
- Wells on the edge of the monitoring network with consistent results below MCLs will be sampled in biennial events: MW-33, MW-58, MW-78, MW-153.

5.0 REFERENCES

- CH2M HILL, 2004. *Final Dunn Field Record of Decision, Revision 2*. Prepared for the U.S. Army Engineering and Support Center, Huntsville, Alabama. March 2004.
- CH2M HILL, 2008. *Off Depot Groundwater Final Remedial Design, Revision 1*. Prepared for the U.S. Army Engineering and Support Center, Huntsville, Alabama. September 2008.
- engineering-environmental Management, Inc. (e²M), 2009. *Dunn Field Record of Decision Amendment, Revision 3*. Prepared for the Air Force Center for Engineering and the Environment. January 2009.
- HDR|e²M, 2009. *Source Areas Interim Remedial Action Completion Report, Revision 1*. Prepared for Air Force Center for Engineering and the Environment. September 2009
- HDR, 2011a. *Dunn Field Off Depot Groundwater Interim Remedial Action Completion Report, Rev 1*. Prepared for Air Force Center for Engineering and the Environment. July 2011.
- HDR, 2011b. *Off Depot Groundwater Annual Long-Term Monitoring Report-2010*. Prepared for Air Force Center for Engineering and the Environment. February 2011.
- MACTEC Engineering and Consulting, Inc., 2005. *Remedial Action Sampling and Analysis Plan, Revision 1*. Prepared for the Air Force Center for Environmental Excellence. November 2005.
- United States Environmental Protection Agency (USEPA), 2010. *Preliminary Close Out Report*. February 2010.

TABLES

TABLE 1
LTM WELLS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Sample Frequency	Northing (ft)	Easting (ft)	Ground Elevation (ft, msl)	Stick Up (ft)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-03	Fluvial	Performance	Wtr Lvl	281596.25	802100.69	290.40	2.0	65.5	10	75.5
MW-04	Fluvial	Background	Biennial	281278.87	802369.19	300.00	1.6	60.0	20	80.0
MW-05	Fluvial	Performance	Annual	281254.49	802084.68	301.30	3.3	60.0	20	80.0
MW-06	Fluvial	Performance	Annual	280604.17	802069.13	288.10	1.0	51.0	20	71.0
MW-07	Fluvial	Performance	Wtr Lvl	281839.88	802481.70	293.10	2.0	67.0	10	77.0
MW-08	Fluvial	Background	Wtr Lvl	282001.04	802727.91	292.74	-0.2	56.5	10	66.5
MW-10	Fluvial	Performance	Wtr Lvl	281662.55	802201.26	289.20	-0.4	58.6	10	68.6
MW-13	Fluvial	Background	Biennial	281033.56	802369.21	300.10	-0.1	66.0	15	81.0
MW-14	Fluvial	Background	Biennial	280003.37	802288.95	302.44	-0.2	65.0	15	80.0
MW-15	Fluvial	Performance	Annual	280348.88	801985.36	295.23	-0.1	63.4	15	78.4
MW-28	Fluvial	Background	Wtr Lvl	281568.58	803154.48	294.89	-0.1	54.3	15	69.3
MW-31	Fluvial	Performance	Annual	281651.53	801783.90	287.50	2.9	64.1	15	79.1
MW-32	Fluvial	Performance	Annual	280834.37	801615.51	285.60	-0.2	52.7	15	67.7
MW-33	Fluvial	Performance	Biennial	280398.10	801561.30	277.70	3.0	44.6	15	59.6
MW-37	Intermediate	Sentinel	Biennial	280831.22	801616.58	285.50	-0.6	165.7	15	180.7
MW-42	Fluvial	Background	Wtr Lvl	281883.92	800182.40	275.10	-0.3	49.0	10	59.0
MW-43	Intermediate	Sentinel	Wtr Lvl	280284.33	800111.73	284.99	0.0	161.5	10	171.5
MW-44	Fluvial	Performance	Annual	281073.71	800601.09	269.40	-0.3	64.0	10	74.0
MW-45	Fluvial	Background	Wtr Lvl	280728.08	804125.99	293.30	-0.1	58.0	10	68.0
MW-51	Fluvial	Background	Biennial	282345.86	802828.62	275.50	-0.3	55.0	10	65.0
MW-57	Fluvial	Performance	Annual	280184.05	802006.19	291.10	-0.3	60.0	10	70.0
MW-58	Fluvial	Performance	Biennial	279845.07	802066.44	290.70	-0.2	57.0	10	67.0
MW-65	Fluvial	Background	Biennial	283529.72	803887.68	264.00	-0.8	40.8	10	50.8
MW-67	Memphis	Sentinel	Wtr Lvl	280473.05	800933.94	275.53	2.7	260.0	15	275.0
MW-68	Fluvial	Performance	Wtr Lvl	281500.76	802040.04	291.60	0.1	72.5	10	82.5
MW-69	Fluvial	Performance	Annual	281202.55	802011.49	304.90	2.1	82.1	10	92.1
MW-71	Fluvial	Performance	Annual	280584.68	801804.71	291.90	2.5	65.5	10	75.5
MW-74	Fluvial	Performance	Annual	280991.20	802044.29	304.00	-0.3	70.0	20	90.0
MW-75	Fluvial	Performance	Annual	281080.10	802051.10	304.30	-0.7	71.0	20	91.0
MW-78	Fluvial	Performance	Biennial	282051.71	802065.28	275.40	-0.4	44.5	20	64.5
MW-80	Fluvial	Background	Wtr Lvl	281417.56	800199.07	274.00	-0.2	53.0	20	73.0
MW-87	Fluvial	Performance	Annual	280696.36	802038.55	292.80	2.1	63.0	15	78.0
MW-91	Fluvial	Performance	Annual	280474.97	802014.43	289.30	2.7	55.0	15	70.0
MW-126	Fluvial	Background	Wtr Lvl	282390.01	800491.67	252.49	-0.3	16.0	10	26.0
MW-127	Fluvial	Background	Wtr Lvl	280738.40	799810.30	268.86	-0.2	60.0	10	70.0
MW-128	Fluvial	Background	Biennial	282712.19	803376.38	284.77	-0.6	54.8	20	74.8
MW-129	Fluvial	Background	Wtr Lvl	282271.08	803128.53	293.33	-0.3	65.0	15	80.0
MW-130	Fluvial	Background	Wtr Lvl	282116.23	803242.02	293.69	-0.5	59.5	20	79.5
MW-132	Fluvial	Performance	Annual	281006.28	802129.10	301.05	-0.3	73.5	15	88.5
MW-134	Fluvial	Performance	Wtr Lvl	281012.74	802102.58	301.05	-0.2	75.0	15	90.0
MW-144	Fluvial	Performance	Annual	281138.63	801528.84	291.89	-0.3	56.8	20	76.8
MW-145	Fluvial	Performance	Annual	280967.63	800823.18	284.86	-0.1	80.1	20	100.1
MW-147	Fluvial	Performance	Annual	281501.06	801674.04	289.97	-0.2	60.2	20	80.2
MW-153	Fluvial	Performance	Biennial	282119.38	800952.34	279.26	-0.1	76.1	20	96.1
MW-154	Fluvial	Background	Wtr Lvl	280501.53	800919.48	274.07	-0.3	53.3	10	63.3
MW-167	Fluvial	Background	Wtr Lvl	281394.03	800618.54	285.21	-0.4	70.5	15	85.5

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MW-169	Transition	Sentinel	Biennial	282491.23	800956.58	262.17	-0.3	68.1	20	88.1
MW-170	Fluvial	Sentinel	Biennial	282443.17	801260.46	273.98	-0.2	59.8	20	79.8
MW-171	Fluvial	Sentinel	Biennial	282315.35	801057.83	271.02	-0.3	53.3	15	68.3
MW-172	Fluvial	Background	Biennial	280213.31	802221.98	300.94	-0.7	68.0	10	78.0
MW-174	Fluvial	Performance	Annual	280352.00	802092.07	296.83	-0.3	67.0	10	77.0
MW-176	Fluvial	Performance	Annual	280823.77	802032.08	299.92	-0.2	76.0	10	86.0
MW-178	Fluvial	Background	Biennial	280982.81	802227.34	300.57	-0.3	76.0	10	86.0
MW-179	Fluvial	Performance	Annual	281075.70	802158.65	301.32	-0.2	77.0	10	87.0
MW-180	Fluvial	Performance	Annual	281476.43	802131.85	296.39	-0.3	72.0	10	82.0
MW-182	Fluvial	Sentinel	Biennial	280524.22	800623.13	272.98	2.4	62.0	10	72.0
MW-184	Fluvial	Performance	Annual	280903.16	801442.29	283.34	-0.2	58.0	10	68.0
MW-185	Fluvial	Sentinel	Biennial	282673.47	800985.92	256.98	-0.3	85.0	10	95.0
MW-186	Fluvial	Sentinel	Biennial	282691.30	800988.07	256.69	-0.4	148.0	10	158.0
MW-187	Fluvial	Background	Biennial	280563.18	802348.09	303.21	-0.5	76.0	10	86.0
MW-190	Fluvial	Performance	Annual	281138.88	801595.73	297.58	-0.3	78.0	10	88.0
MW-220	Fluvial	Performance	Wtr Lvl	281617.49	802166.87	290.31	3.0	64.9	15	79.9
MW-221	Fluvial	Performance	Annual	281399.71	802100.05	298.37	3.2	73.1	15	88.1
MW-222	Fluvial	Performance	Annual	280986.04	802145.54	301.06	2.8	74.2	15	89.2
MW-223	Fluvial	Performance	Annual	280913.53	802104.29	300.41	2.6	73.9	15	88.9
MW-224	Fluvial	Performance	Annual	281017.74	802181.62	301.18	3.0	73.7	15	88.7
MW-225	Fluvial	Performance	Annual	280947.12	802070.50	301.30	3.2	75.0	15	90.0
MW-226	Fluvial	Performance	Annual	280931.94	802147.21	300.56	2.6	74.2	15	89.2
MW-227	Fluvial	Performance	Annual	280257.91	802081.00	296.64	3.1	63.6	15	78.6
MW-228	Fluvial	Performance	Annual	280251.88	802157.40	298.59	3.1	64.1	15	79.1
MW-230	Fluvial	Background	Wtr Lvl	281842.54	802800.22	286.92	-0.4	59.3	15	74.3
MW-231	Intermediate	Sentinel	Biennial	280944.20	801628.65	289.43	-0.3	167.8	26	193.3
MW-234	Intermediate	Sentinel	Biennial	281005.44	801630.89	291.71	-0.2	166.6	10	176.8
MW-235	Fluvial	Sentinel	Biennial	280727.57	800447.83	264.21	-0.2	50.6	10	60.8
MW-237	Intermediate	Sentinel	Biennial	281356.02	800963.99	289.53	-0.4	166.5	10	176.7
MW-239	Intermediate	Sentinel	Biennial	281334.02	801009.58	288.77	-0.3	165.5	10	175.7
MW-240	Intermediate	Sentinel	Biennial	282897.03	800869.30	259.51	-0.2	86.6	10	96.8

Notes:

ft: feet

ft, btoc: feet below top of casing

ft, msl: feet mean sea level

TABLE 2
PERFORMANCE MONITORING WELLS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Northing (ft)	Easting (ft)	Ground Elevation (ft, msl)	Stick Up (ft)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-54	Fluvial	281160.10	801183.32	295.60	-0.25	84.5	10	94.5
MW-70	Fluvial	281029.60	801988.49	302.80	2.19	80.8	10	90.8
MW-76	Fluvial	281311.98	801642.76	303.30	-0.59	73.0	20	93.0
MW-77	Fluvial	281142.96	801815.29	304.70	-0.28	68.0	20	88.0
MW-79	Fluvial	281794.22	800899.03	285.40	-0.37	82.5	20	102.5
MW-148	Fluvial	281377.94	801461.63	294.87	-0.157	70.0	20	90.0
MW-149	Fluvial	281130.04	800982.76	287.44	-0.267	81.4	20	101.4
MW-150	Fluvial	281238.66	801283.61	297.15	-0.332	71.2	20	91.2
MW-151	Fluvial	281290.42	800874.85	284.42	-0.15	77.0	20	97.0
MW-152	Fluvial	281515.56	800892.84	289.82	-0.23	91.0	20	111.0
MW-155	Fluvial	281325.31	801168.93	291.84	-0.19	77.0	20	97.0
MW-157	Fluvial	281050.91	801348.32	286.83	-0.05	57.0	20	77.0
MW-158	Fluvial	281434.42	801005.34	294.38	-0.31	91.0	15	106.0
MW-158A	Fluvial	281443.51	801005.67	294.22	-0.27	77.9	15	92.9
MW-159	Fluvial	281304.29	801006.52	286.58	-0.25	80.4	20	100.4
MW-160	Fluvial	281366.52	801304.26	294.11	-0.11	65.9	20	85.9
MW-161	Fluvial	281120.29	801596.82	296.67	-0.27	61.8	20	81.8
MW-162	Fluvial	281244.22	801596.06	299.89	-0.19	66.3	20	86.3
MW-163	Fluvial	281152.59	801487.27	290.81	-0.18	56.2	20	76.2
MW-164	Fluvial	280997.55	801497.47	287.71	-0.23	55.6	20	75.6
MW-165	Fluvial	281384.63	800855.49	287.35	-0.29	88.6	15	103.6
MW-165A	Fluvial	281383.55	800865.69	287.53	-0.27	71.3	15	86.3
MW-166	Fluvial	281224.99	800928.09	280.96	2.48	83.9	15	98.9
MW-166A	Fluvial	281213.35	800927.36	280.92	2.53	68.3	15	83.3
MW-232	Intermediate	281294.53	801006.27	285.63	-0.45	150.1	21	170.6
MW-241	Fluvial	281389.92	801396.74	293.00	-0.18	73.3	15	88.3
MW-242	Fluvial	281297.31	801228.65	295.94	-0.54	73.2	16	88.7
MW-243	Fluvial	281370.62	801116.45	292.53	-0.27	80.7	20	100.7
MW-244	Fluvial	281333.49	801101.07	289.45	-0.73	76.3	20	96.3
MW-245	Fluvial	281379.56	801035.07	290.55	-0.42	84.7	20	104.7
MW-246	Fluvial	281387.26	800951.62	288.49	-0.32	85.2	20	105.2
MW-247	Fluvial	281319.67	800900.12	286.16	-0.46	80.0	20	100.0
MW-248	Fluvial	281253.66	800720.22	275.93	-0.48	67.5	20	87.5
MW-249	Fluvial	281029.63	800789.83	285.89	-0.36	78.0	20	98.0
MW-250	Intermediate	281045.53	800900.38	290.19	-0.53	168.7	15	183.7
MW-251	Intermediate	281211.70	801021.75	286.16	-0.33	160.2	15	175.2

Notes:

ft: feet

ft, btoc: feet below top of casing

ft, msl: feet mean sea level

TABLE 3
LTM SCHEDULE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Well Classification	Sample Frequency	Annual Mar 2010	Semiannual Sep 2010	Biennial Mar 2011	Semiannual Sep 2011
MW-04	Fluvial	Background	Biennial	-	-	S	-
MW-05 ¹	Fluvial	Performance	Annual	-	-	LF	-
MW-06	Fluvial	Performance	Annual	S	-	S	-
MW-13	Fluvial	Background	Biennial	-	-	S	-
MW-14	Fluvial	Background	Biennial	-	-	S	-
MW-15	Fluvial	Performance	Annual	S	-	S	-
MW-31	Fluvial	Performance	Annual	S	-	S	-
MW-32	Fluvial	Performance	Annual	S	-	S	-
MW-33	Fluvial	Performance	Biennial	-	-	S	-
MW-37	Intermediate	Sentinel	Biennial	-	-	S	-
MW-44	Fluvial	Performance	Annual	S	-	S	-
MW-51	Fluvial	Background	Biennial	-	-	S	-
MW-57	Fluvial	Performance	Annual	S	-	S	-
MW-58	Fluvial	Performance	Biennial	-	-	LF	-
MW-65	Fluvial	Background	Biennial	-	-	S	-
MW-69	Fluvial	Performance	Annual	S	-	S	-
MW-71	Fluvial	Performance	Annual	S	-	S	-
MW-74	Fluvial	Performance	Annual	S	-	S	-
MW-75	Fluvial	Performance	Annual	S	-	S	-
MW-78	Fluvial	Performance	Biennial	LF	-	S	-
MW-87	Fluvial	Performance	Annual	S	-	S	-
MW-91 ¹	Fluvial	Performance	Annual	-	-	LF	-
MW-128	Fluvial	Background	Biennial	-	-	S	-
MW-132	Fluvial	Performance	Annual	LF	-	S	-
MW-144	Fluvial	Performance	Annual	S	-	S	-
MW-145	Fluvial	Performance	Annual	S	-	S	-
MW-147 ¹	Fluvial	Performance	Annual	S	S	S	-
MW-153	Fluvial	Performance	Biennial	-	-	S	-
MW-169	Transition	Sentinel	Biennial	-	-	S	-
MW-170	Fluvial	Sentinel	Biennial	-	-	S	-
MW-171	Fluvial	Sentinel	Biennial	-	-	S	-
MW-172 ¹	Fluvial	Background	Biennial	LF	-	LF	-
MW-174	Fluvial	Performance	Annual	S	-	S	-
MW-176	Fluvial	Performance	Annual	S	-	S	-
MW-178 ¹	Fluvial	Background	Biennial	S	-	S	-
MW-179	Fluvial	Performance	Annual	S	-	S	-
MW-180	Fluvial	Performance	Annual	S	-	S	-
MW-182	Fluvial	Sentinel	Biennial	-	-	S	-
MW-184 ¹	Fluvial	Performance	Annual	-	-	LF	-
MW-185	Transition	Sentinel	Biennial	-	-	S	-
MW-186	Transition	Sentinel	Biennial	-	-	S	-
MW-187 ¹	Fluvial	Background	Biennial	S	-	S	-
MW-190	Fluvial	Performance	Annual	S	-	S	-
MW-221	Fluvial	Performance	Annual	S	-	S	-
MW-222	Fluvial	Performance	Annual	S	-	S	-
MW-223	Fluvial	Performance	Annual	S	-	S	-

TABLE 3
LTM SCHEDULE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Well Classification	Sample Frequency	Annual Mar 2010	Semiannual Sep 2010	Biennial Mar 2011	Semiannual Sep 2011
MW-224	Fluvial	Performance	Annual	S	-	S	-
MW-225	Fluvial	Performance	Annual	S	-	S	-
MW-226	Fluvial	Performance	Annual	S	-	S	-
MW-227	Fluvial	Performance	Annual	S	-	S	-
MW-228	Fluvial	Performance	Annual	LF	-	LF	-
MW-231	Intermediate	Sentinel	Biennial	-	-	S	-
MW-234	Intermediate	Sentinel	Biennial	-	-	S	-
MW-235	Fluvial	Sentinel	Biennial	-	-	S	-
MW-237	Intermediate	Sentinel	Biennial	-	-	S	-
MW-239	Intermediate	Sentinel	Biennial	-	-	S	-
MW-240	Transition	Sentinel	Biennial	-	-	S	-

Notes:

- 1) Sample frequency changed per 2010 annual report
- P: Sample planned
- LF: Sample collected using low-flow purging methods.
- S: PDB sample collected at mid-point of saturated screened interval.
- : Sample not planned or collected

TABLE 4
 PERFORMANCE MONITORING SCHEDULE
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Year 1 - Quarterly					Year 2 - Semiannual	
		Oct 2009	Mar 2010	Jun 2010	Sep 2010	Jan 2011	Mar 2011	Sep 2011
MW-54	Fluvial	S	S	S	S	S	S	S
MW-70	Fluvial	S	S	S	S	S	S	S
MW-76	Fluvial	S	S	S	S	S	S	S
MW-77	Fluvial	S	S	S	S	S	S	S
MW-79	Fluvial	S	S	S	S	S	S	S
MW-148	Fluvial	S	S	S	S	S	S	S
MW-149	Fluvial	S	S	S	S	S	S	S
MW-150	Fluvial	S	S	S	S	S	S	S
MW-151	Fluvial	S	S	S	S	S	S	S
MW-152	Fluvial	S	S	S	S	S	S	S
MW-155	Fluvial	S	S	S	S	S	S	S
MW-157	Fluvial	S	S	S	S	S	S	S
MW-158	Fluvial	S	S	S	S	S	S	S
MW-158A	Fluvial	S	S	S	S	S	S	S
MW-159	Fluvial	S	S	S	S	S	S	S
MW-160	Fluvial	S	S	LF	S	LF	S	LF
MW-161	Fluvial	S	S	S	S	S	S	S
MW-162	Fluvial	S	S	S	S	S	S	S
MW-163	Fluvial	LF	LF	S	S	S	S	S
MW-164	Fluvial	S	S	S	S	S	S	S
MW-165	Fluvial	S	S	S	S	S	S	S
MW-165A	Fluvial	S	S	S	S	S	S	S
MW-166	Fluvial	S	S	S	S	S	S	S
MW-166A	Fluvial	S	S	S	S	S	S	S
MW-232	Intermediate	S	S	S	S	-	S	S
MW-241	Fluvial	S	S	S	S	S	S	S
MW-242	Fluvial	S	S	S	S	S	S	S
MW-243	Fluvial	S	S	S	S	S	S	S
MW-244	Fluvial	S	S	S	S	S	S	S
MW-245	Fluvial	S	S	S	S	S	S	S
MW-246	Fluvial	S	S	S	S	S	S	S
MW-247	Fluvial	S	S	S	S	S	S	S
MW-248	Fluvial	S	S	S	S	S	S	S
MW-249	Fluvial	S	S	S	S	S	S	S
MW-250	Intermediate	S	S	S	S	-	S	S
MW-251	Intermediate	S	S	S	S	-	S	S

Notes:

P: Sample planned.

LF: Sample collected using low-flow purging methods.

S: PDB sample collected at mid-point of saturated screened interval.

-: Sample not planned or collected

TABLE 5
WATER LEVEL MEASUREMENTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation	Top of Screen Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		(ft, msl)	(ft, msl)	(ft, btoc)	30-Mar-11 (ft, msl)	28 to 29-Sep-11 (ft, btoc)	(ft, msl)
MW-03	Fluvial	292.35	226.85	63.56	228.79	63.69	228.66
MW-04	Fluvial	301.61	241.61	71.00	230.61	71.10	230.51
MW-05	Fluvial	304.64	244.64	75.49	229.15	75.64	229.00
MW-06	Fluvial	289.11	238.11	58.96	230.15	59.43	229.68
MW-07	Fluvial	295.10	228.10	63.60	231.50	63.57	231.53
MW-08	Fluvial	292.59	236.09	59.68	232.91	59.69	232.90
MW-10	Fluvial	--	230.19	NM	--	62.75	--
MW-13	Fluvial	300.01	234.01	69.39	230.62	69.51	230.50
MW-14	Fluvial	302.22	237.22	72.17	230.05	72.20	230.02
MW-15	Fluvial	295.12	231.72	64.90	230.22	65.01	230.11
MW-28	Fluvial	294.79	240.49	54.45	240.34	54.38	240.41
MW-31	Fluvial	290.37	226.27	65.50	224.87	65.53	224.84
MW-32	Fluvial	285.38	232.68	NM	--	NM	--
MW-33	Fluvial	280.71	236.11	52.04	228.67	NM	--
MW-37	Intermediate	284.91	119.21	NM	--	124.81	160.10
MW-42	Fluvial	274.83	225.83	52.89	221.94	52.88	221.95
MW-43	Intermediate	284.99	123.49	116.05	168.94	122.22	162.77
MW-44	Fluvial	269.07	205.07	50.81	218.26	50.78	218.29
MW-45	Fluvial	293.22	235.22	54.51	238.71	54.44	238.78
MW-51	Fluvial	275.23	220.23	39.22	236.01	39.25	235.98
MW-54	Fluvial	295.35	210.85	75.83	219.52	75.78	219.57
MW-57	Fluvial	290.77	230.77	60.83	229.94	60.82	229.95
MW-58	Fluvial	290.51	233.51	61.52	228.99	61.41	229.10
MW-65	Fluvial	263.22	222.42	5.93	257.29	12.88	250.34
MW-67	Memphis	278.21	18.21	109.77	168.44	118.11	160.10
MW-68	Fluvial	291.69	219.19	63.35	228.34	63.49	228.20
MW-69	Fluvial	307.02	224.94	78.19	228.83	78.52	228.50
MW-70	Fluvial	304.99	224.18	76.05	228.94	76.12	228.87
MW-71	Fluvial	294.40	228.90	65.46	228.94	65.44	228.96
MW-74	Fluvial	303.68	233.68	74.30	229.38	74.53	229.15
MW-75	Fluvial	303.61	232.61	74.43	229.18	74.34	229.27
MW-76	Fluvial	302.71	229.71	79.05	223.66	79.02	223.69
MW-77	Fluvial	304.42	236.42	77.54	226.88	77.61	226.81
MW-78	Fluvial	275.00	230.50	45.35	229.65	45.42	229.58
MW-79	Fluvial	285.03	202.53	67.29	217.74	67.31	217.72
MW-80	Fluvial	273.81	220.81	56.45	217.36	55.48	218.33
MW-87	Fluvial	294.93	231.93	65.12	229.81	65.31	229.62
MW-91	Fluvial	291.99	236.99	61.98	230.01	62.18	229.81
MW-126	Fluvial	252.22	236.22	17.40	234.82	20.44	231.78
MW-127	Fluvial	268.71	208.71	57.84	210.87	57.78	210.93
MW-128	Fluvial	284.14	229.39	40.41	243.73	41.22	242.92
MW-129	Fluvial	293.01	228.01	54.73	238.28	54.74	238.27
MW-130	Fluvial	293.20	233.70	54.00	239.20	53.95	239.25
MW-132	Fluvial	300.73	227.23	71.44	229.29	71.54	229.19
MW-134	Fluvial	300.81	225.81	71.19	229.62	71.32	229.49

TABLE 5
WATER LEVEL MEASUREMENTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing Elevation	Top of Screen Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		(ft, msl)	(ft, msl)	(ft, btoc)	30-Mar-11 (ft, msl)	28 to 29-Sep-11 (ft, btoc)	(ft, msl)
MW-144	Fluvial	291.60	235.10	68.87	222.73	68.84	222.76
MW-145	Fluvial	284.72	204.72	65.96	218.76	65.90	218.82
MW-147	Fluvial	289.72	229.72	65.95	223.77	65.90	223.82
MW-148	Fluvial	294.71	224.71	73.39	221.32	73.32	221.39
MW-149	Fluvial	287.18	205.78	68.22	218.96	68.14	219.04
MW-150	Fluvial	296.81	225.61	76.76	220.05	76.68	220.13
MW-151	Fluvial	284.27	207.27	65.54	218.73	65.51	218.76
MW-152	Fluvial	289.59	198.59	71.34	218.25	71.32	218.27
MW-153	Fluvial	279.17	203.17	61.83	217.34	61.83	217.34
MW-154	Fluvial	273.81	220.81	55.37	218.44	55.94	217.87
MW-155	Fluvial	291.65	214.65	72.41	219.24	72.25	219.40
MW-157	Fluvial	286.78	229.78	65.44	221.34	65.42	221.36
MW-158	Fluvial	294.07	203.06	75.62	218.45	75.54	218.53
MW-158A	Fluvial	293.95	216.03	75.54	218.41	75.43	218.52
MW-159	Fluvial	286.33	205.89	67.54	218.79	67.48	218.85
MW-160	Fluvial	293.69	228.04	73.63	220.06	74.38	219.31
MW-161	Fluvial	296.40	234.60	72.85	223.55	72.89	223.51
MW-162	Fluvial	299.70	233.39	76.33	223.37	76.30	223.40
MW-163	Fluvial	290.63	234.42	68.25	222.38	68.28	222.35
MW-164	Fluvial	287.48	231.86	64.62	222.86	64.71	222.77
MW-165	Fluvial	287.06	198.43	68.74	218.32	68.73	218.33
MW-165A	Fluvial	287.26	215.96	68.87	218.39	68.94	218.32
MW-166	Fluvial	282.72	199.59	64.03	218.69	63.97	218.75
MW-166A	Fluvial	282.90	215.15	64.16	218.74	64.11	218.79
MW-167	Fluvial	284.82	214.68	66.88	217.94	67.12	217.70
MW-169	te	261.90	194.12	70.22	191.68	70.36	191.54
MW-170	Fluvial	273.75	214.14	54.41	219.34	54.26	219.49
MW-171	Fluvial	270.69	217.72	52.15	218.54	52.13	218.56
MW-172	Fluvial	300.28	232.28	69.73	230.55	69.85	230.43
MW-174	Fluvial	296.56	229.56	66.18	230.38	66.32	230.24
MW-175	Fluvial	291.63	224.13	61.11	230.52	NM	--
MW-176	Fluvial	299.68	223.68	69.97	229.71	70.14	229.54
MW-178	Fluvial	300.26	224.26	70.21	230.05	70.41	229.85
MW-179	Fluvial	301.16	224.16	71.46	229.70	71.67	229.49
MW-180	Fluvial	296.14	224.14	67.02	229.12	67.17	228.97
MW-182	Fluvial	275.40	213.40	61.13	214.27	60.92	214.48
MW-184	Fluvial	283.12	225.12	60.64	222.48	60.58	222.54
MW-185	Fluvial	256.71	171.71	67.27	189.44	69.00	187.71
MW-186	Fluvial	256.31	108.31	74.80	181.51	79.10	177.21
MW-187	Fluvial	302.74	226.74	71.70	231.04	71.80	230.94
MW-190	Fluvial	297.32	219.32	74.12	223.20	74.13	223.19
MW-220	Fluvial	293.29	228.35	63.79	229.50	63.96	229.33
MW-221	Fluvial	301.52	228.40	72.54	228.98	72.74	228.78
MW-222	Fluvial	303.82	229.64	73.95	229.87	74.21	229.61
MW-223	Fluvial	303.00	229.13	73.14	229.86	73.41	229.59

TABLE 5
WATER LEVEL MEASUREMENTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Top of Casing	Top of Screen	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
		Elevation (ft, msl)	Elevation (ft, msl)	(ft, btoc)	30-Mar-11 (ft, msl)	28 to 29-Sep-11 (ft, btoc)	(ft, msl)
MW-224	Fluvial	304.13	230.42	74.24	229.89	74.42	229.71
MW-225	Fluvial	304.52	229.54	74.86	229.66	75.11	229.41
MW-226	Fluvial	303.19	228.97	73.23	229.96	73.49	229.70
MW-227	Fluvial	299.70	236.06	68.19	231.51	69.38	230.32
MW-228	Fluvial	301.65	237.56	71.10	230.55	71.37	230.28
MW-230	Fluvial	286.57	227.32	52.72	233.85	52.67	233.90
MW-231	Intermediate	289.18	121.43	121.29	167.89	NM	--
MW-232	Intermediate	285.18	135.13	116.79	168.39	124.21	160.97
MW-234	Intermediate	291.50	124.91	123.66	167.84	130.29	161.21
MW-235	Fluvial	264.00	213.41	53.63	210.37	53.38	210.62
MW-237	Intermediate	289.18	122.73	120.67	168.51	127.86	161.32
MW-239	Intermediate	288.44	122.97	120.15	168.29	126.05	162.39
MW-240	Intermediate	259.28	172.71	68.81	190.47	70.20	189.08
MW-241	Fluvial	292.82	219.57	72.15	220.67	72.23	220.59
MW-242	Fluvial	295.40	222.20	74.55	220.85	74.55	220.85
MW-243	Fluvial	292.26	211.56	73.44	218.82	73.33	218.93
MW-244	Fluvial	288.72	212.39	69.95	218.77	69.81	218.91
MW-245	Fluvial	290.13	205.40	71.60	218.53	71.52	218.61
MW-246	Fluvial	288.17	202.97	69.54	218.63	69.71	218.46
MW-247	Fluvial	285.70	205.70	67.24	218.46	67.20	218.50
MW-248	Fluvial	275.45	207.94	57.13	218.32	NM	--
MW-249	Fluvial	285.53	207.49	66.89	218.64	66.86	218.67
MW-250	Intermediate	289.66	120.96	121.98	167.68	129.44	160.22
MW-251	Intermediate	285.83	125.63	117.95	167.88	125.42	160.41

Notes:

- 1) MW-10 was repaired and needs to be re-surveyed
- ft, btoc: feet below top of casing
- ft, msl: feet mean sea level
- NM: Not Measured

TABLE 6
PDB SAMPLE INTERVALS - LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Monitoring Well	Date Collected	Top of Screen Depth (ft, btoc)	Screen Length (ft)	Depth to Water (ft, btoc)	Sample Depth ¹ (ft, btoc)
MW-04	4/28/2011	60.0	20	71.0	76.2
MW-06	4/26/2011	51.0	20	59.0	65.9
MW-13	4/28/2011	66.0	15	69.4	75.9
MW-14	4/28/2011	65.0	15	72.2	76.5
MW-15	4/26/2011	63.4	15	64.9	72.5
MW-31	4/26/2011	64.1	15	65.5	73.2
MW-32	4/26/2011	52.7	15	59.7	64.6
MW-33	4/28/2011	44.6	15	52.0	56.8
MW-37	4/28/2011	165.7	15	NM	173.2
MW-44	4/26/2011	64.0	10	50.8	69.0
MW-51	4/28/2011	55.0	10	39.2	60.0
MW-57	4/26/2011	60.0	10	60.8	66.1
MW-65	4/28/2011	40.8	10	5.9	45.8
MW-69	4/26/2011	82.1	10	78.2	87.1
MW-71	4/26/2011	65.5	10	65.5	71.4
MW-74	4/26/2011	70.0	20	74.3	82.9
MW-75	4/26/2011	71.0	20	74.4	83.5
MW-78	4/28/2011	44.5	20	45.4	55.0
MW-87	4/26/2011	63.0	15	65.1	72.4
MW-128	4/28/2011	54.8	20	40.4	64.5
MW-132	4/26/2011	73.5	15	71.4	81.0
MW-144	4/26/2011	56.5	20	68.9	74.3
MW-145	4/26/2011	80.0	20	66.0	90.1
MW-147	4/26/2011	60.0	20	66.0	74.3
MW-153	4/28/2011	76.0	20	61.8	86.1
MW-169	4/28/2011	67.8	20	70.2	80.2
MW-170	4/28/2011	59.6	20	54.4	77.6
MW-171	4/28/2011	53.0	15	52.2	61.3
MW-174	4/26/2011	67.0	10	66.2	73.0
MW-176	4/26/2011	76.0	10	70.0	81.0
MW-178	4/28/2011	76.0	10	70.2	81.0
MW-179	4/26/2011	77.0	10	71.5	82.0
MW-180	4/26/2011	72.0	10	67.0	77.0
MW-182	4/28/2011	62.0	10	61.1	67.7
MW-185	4/28/2011	85.0	10	67.3	90.0
MW-186	4/28/2011	148.0	10	74.8	153.0
MW-187	4/28/2011	76.0	10	71.7	81.0
MW-190	4/26/2011	78.0	10	74.1	83.0
MW-221	4/26/2011	73.1	15	72.5	81.0
MW-222	4/26/2011	74.2	15	74.0	82.4
MW-223	4/26/2011	73.9	15	73.1	81.4
MW-224	4/26/2011	73.7	15	74.2	82.2
MW-225	4/26/2011	75.0	15	74.9	83.2
MW-226	4/26/2011	74.2	15	73.2	82.0
MW-227	4/26/2011	63.6	15	68.2	74.7
MW-231	4/28/2011	167.8	26	121.3	180.5
MW-234	4/28/2011	166.6	10	123.7	171.7
MW-235	4/28/2011	50.6	10	53.6	57.2
MW-237	4/28/2011	166.5	10	120.7	171.6
MW-239	4/28/2011	165.5	10	120.2	170.6
MW-240	4/28/2011	86.6	10	68.8	91.7

Notes:

- 1) Sample depth is to PDB mid-point
- ft: feet
- ft, btoc: feet below top of casing
- PDB: passive diffusion bag

TABLE 7
 FINAL WELL STABILIZATION MEASUREMENTS - LTM, APRIL
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field – Defense Depot Memphis, Tennessee

Well ID	Sample Date	Method	Time	Sample Pump Depth (ft, btoc)	Water Depth (ft, btoc)	Purge Rate (ml/min)	Volume Purged (L)	pH	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)
MW-05	4/29/2011	low flow	9:08	83.1	75.55	275	5.5	6.3	18.6	0.361	12.4	179	1.3
MW-58	4/29/2011	low flow	8:10	67.3	61.80	300	6.0	5.9	17.3	0.330	11.4	169	14.1
MW-91	4/28/2011	low flow	15:16	62.0	62.18	300	6.0	6.3	18.6	0.234	17.3	151	11.0
MW-172	4/28/2011	low flow	13:16	76.1	70.11	360	9.1	5.9	22.4	0.180	8.6	177	17.3
MW-184	4/29/2011	low flow	10:15	85.8	61.20	300	6.0	6.0	16.6	0.260	11.4	183	4.3
MW-228	4/28/2011	low flow	14:05	77.0	71.40	370	7.4	5.9	26.4	0.208	8.8	144	7.9

Notes:

°C :	degrees Celsius	mS/cm:	milliSiemens per centimeter
DO:	Dissolved Oxygen	mV:	millivolts
ft, btoc:	feet below top of casing	NA:	not available
L:	liters	NTU:	nephelometric turbidity unit
mg/L:	milligrams per liter	ORP:	Oxidation Reduction Potential
mL/min:	milliliters per minute		

TABLE 8
PDB SAMPLE INTERVALS - PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Monitoring Well	Date Collected	Top of Screen	Screen Length (ft)	Depth to Water (ft, btoc)	Sample Depth ¹ (ft, btoc)
		Depth (ft, btoc)			
MW-54	4/25/2011	84.5	10.0	75.8	89.5
MW-70	4/25/2011	80.8	10.0	76.1	85.8
MW-76	4/25/2011	73.0	20.0	79.1	87.3
MW-77	4/25/2011	68.0	20.0	77.5	83.6
MW-79	4/25/2011	82.5	20.0	67.3	92.5
MW-148	3/28/2011	67.1	20.0	73.4	81.7
MW-149	3/28/2011	81.7	20.0	68.2	91.7
MW-150	3/28/2011	70.6	20.0	76.8	85.3
MW-151	3/28/2011	77.2	20.0	65.5	87.2
MW-152	3/28/2011	91.2	20.0	71.3	101.2
MW-155	3/28/2011	77.2	20.0	72.4	87.2
MW-157	3/28/2011	57.1	20.0	65.4	72.9
MW-158	3/28/2011	91.3	15.0	75.6	98.8
MW-158A	3/28/2011	78.2	15.0	75.5	85.8
MW-159	3/28/2011	80.7	20.0	67.5	90.7
MW-160	3/28/2011	66.2	20.0	73.6	81.4
MW-161	3/28/2011	62.1	20.0	72.9	78.8
MW-162	3/28/2011	66.5	20.0	76.3	82.8
MW-163	3/28/2011	56.2	20.0	68.3	73.0
MW-164	3/28/2011	55.9	20.0	64.6	71.8
MW-165	3/28/2011	88.9	15.0	68.7	96.4
MW-165A	3/28/2011	71.6	15.0	68.9	79.2
MW-166	3/28/2011	83.2	15.0	64.0	90.7
MW-166A	3/28/2011	67.7	15.0	64.2	75.2
MW-232	3/28/2011	150.1	20.5	116.8	160.3
MW-241	3/28/2011	73.3	15.0	72.2	81.6
MW-242	3/28/2011	73.2	15.5	74.6	83.8
MW-243	3/28/2011	80.7	20.0	73.4	90.7
MW-244	3/28/2011	76.3	20.0	70.0	86.3
MW-245	3/28/2011	84.7	20.0	71.6	95.0
MW-246	3/28/2011	85.2	20.0	69.5	95.2
MW-247	3/28/2011	80.0	20.0	67.2	90.0
MW-248	3/28/2011	67.5	20.0	57.1	77.5
MW-249	3/28/2011	78.0	20.0	66.9	88.3
MW-250	4/25/2011	168.7	15.0	122.0	176.2
MW-251	4/25/2011	160.2	15.0	118.0	167.7

Notes:

1) Sample depth is to PDB mid-point

ft: feet

ft, btoc: Feet below top of casing

PDB: passive diffusion bag

TABLE 9
PDB SAMPLE INTERVALS - PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Monitoring Well	Date Collected	Top of Screen	Screen Length (ft)	Depth to Water (ft, btoc)	Sample Depth ¹ (ft, btoc)
		Depth (ft, btoc)			
MW-54	9/26/2011	84.5	10.0	75.8	89.5
MW-70	9/27/2011	80.8	10.0	76.1	85.8
MW-76	9/27/2011	73.0	20.0	79.0	87.3
MW-77	9/27/2011	68.0	20.0	77.6	83.6
MW-79	9/27/2011	82.5	20.0	67.3	92.5
MW-148	9/27/2011	67.1	20.0	73.3	81.7
MW-149	9/27/2011	81.7	20.0	68.1	91.7
MW-150	9/26/2011	70.6	20.0	76.7	85.3
MW-151	9/27/2011	77.2	20.0	65.5	87.2
MW-152	9/27/2011	91.2	20.0	71.3	101.2
MW-155	9/26/2011	77.2	20.0	72.3	87.2
MW-157	9/27/2011	57.1	20.0	65.4	72.9
MW-158	9/27/2011	91.3	15.0	75.5	98.8
MW-158A	9/27/2011	78.2	15.0	75.4	85.8
MW-159	9/27/2011	80.7	20.0	67.5	90.7
MW-161	9/27/2011	62.1	20.0	72.9	78.8
MW-162	9/27/2011	66.5	20.0	76.3	82.8
MW-163	9/27/2011	56.2	20.0	68.3	73.0
MW-164	9/27/2011	55.9	20.0	64.7	71.8
MW-165	9/27/2011	88.9	15.0	68.7	96.4
MW-165A	9/27/2011	71.6	15.0	68.9	79.2
MW-166	9/27/2011	83.2	15.0	64.0	90.7
MW-166A	9/27/2011	67.7	15.0	64.1	75.2
MW-232	9/27/2011	150.1	20.5	124.2	160.3
MW-241	9/27/2011	73.3	15.0	72.2	81.6
MW-242	9/26/2011	73.2	15.5	74.6	83.8
MW-243	9/27/2011	80.7	20.0	73.3	90.7
MW-244	9/27/2011	76.3	20.0	69.8	86.3
MW-245	9/27/2011	84.7	20.0	71.5	95.0
MW-246	9/27/2011	85.2	20.0	69.7	95.2
MW-247	9/27/2011	80.0	20.0	67.2	90.0
MW-248	9/27/2011	67.5	20.0	57.1	77.5
MW-249	9/27/2011	78.0	20.0	66.9	88.3
MW-250	9/27/2011	168.7	15.0	129.4	176.2
MW-251	9/26/2011	160.2	15.0	125.4	167.7

Notes:

1) Sample depth is to PDB mid-point

ft: feet

ft, btoc: Feet below top of casing

PDB: passive diffusion bag

TABLE 10
 FINAL WELL STABILIZATION MEASUREMENTS - PERFORMANCE MONITORING, SEPTEMBER
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field – Defense Depot Memphis, Tennessee

Well ID	Sample Date	Method	Time	Sample Pump Depth (ft, btoc)	Water Depth (ft, btoc)	Purge Rate (ml/min)	Volume Purged (L)	pH	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)
MW-160	9/27/2011	low flow	17:03	80.0	74.33	95	5.2	7.3	24.6	0.390	26.3	232	0.2

Notes:

°C :	degrees Celsius	mS/cm:	milliSiemens per centimeter
DO:	Dissolved Oxygen	mV:	millivolts
ft, btoc:	feet below top of casing	NA:	not available
L:	liters	NTU:	nephelometric turbidity unit
mg/L:	milligrams per liter	ORP:	Oxidation Reduction Potential
mL/min:	milliliters per minute		

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-04 L11050034-08 4/28/2011	MW-05 L11050034-09 4/28/2011	MW-06 L11040914-04 4/26/2011	MW-13 L11050034-11 4/28/2011	MW-14 L11050034-12 4/28/2011	MW-15 L11040914-09 4/26/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	0.807	<0.5	<0.5	0.239 J
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	0.56 J	0.288 J
Chloroform	µg/L	80	12	0.278 B	0.428 B	8.73	0.522 B	<0.3	3.21
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	0.637 J	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	0.304 J	<1	<1	0.442 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	3.34	<1	<1	2.02
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				0.278	0.428	13.8	0.522	0.560	6.20
1,4-Dichlorobenzene	µg/L			0.393 B	<0.5	<0.5	0.772 B	0.488 B	<0.5
Acetone	µg/L			<10 UJ	<10	<10	<10 UJ	<10 UJ	<10
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-31 L11040914-22 4/26/2011	MW-32 L11040914-23 4/26/2011	MW-33 L11050034-35 4/28/2011	MW-37 L11050034-36 4/28/2011	MW-44 L11040914-24 4/26/2011	MW-51 L11050034-37 4/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	3.39	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	1.17	<1	<1	<1	<1	13.9
Carbon tetrachloride	µg/L	5	3	<1	1.21	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	10.9	0.517 B	<0.3	0.17 J	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	3.6	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	2.47	0.45 J	0.254 J	<1	<1	2.27
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	2.15	6.92	<1	<1	0.579 J	8.84
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				5.79	26.5	0.771	0	0.749	25.0
1,4-Dichlorobenzene	µg/L			<0.5	<0.5	0.327 B	0.61 B	<0.5	0.134 B
Acetone	µg/L			<10	<10	<10 UJ	<10 UJ	<10	<10 UJ
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-57 L11040914-25 4/26/2011	MW-58 L11050034-38 4/28/2011	MW-65 L11050034-39 4/28/2011	MW-69 L11040914-26 4/26/2011	MW-71 L11040914-27 4/26/2011	MW-74 L11040914-28 4/26/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	0.213 J	<0.5	<0.5	0.892	0.506
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	0.946 J	<1	<1	<1	<1
Chloroform	µg/L	80	12	20.3	<0.3	<0.3	0.203 J	29.3	0.498
cis-1,2-Dichloroethene	µg/L	70	35	0.409 J	<1	<1	<1	0.531 J	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1	<1	<1	0.612 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	1.84	0.26 J	<1	<1	4.48	4.93
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				22.5	1.42	0	0.203	35.2	6.55
1,4-Dichlorobenzene	µg/L			<0.5	<0.5	0.719 B	<0.5	<0.5	<0.5
Acetone	µg/L			<10	<10 UJ	3.33 B	<10	<10	3.54 J
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-75 L11040914-29 4/26/2011	MW-78 L11050034-42 4/28/2011	MW-87 L11040914-30 4/26/2011	MW-91 L11050038-01 4/28/2011	MW-128 L11050034-10 4/28/2011	MW-132 L11040914-05 4/26/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	1.49	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	0.391 J	<1	<1
Chloroform	µg/L	80	12	<0.3	<0.3	3.04	2.86	<0.3	0.201 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	0.398 J	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.876 J	<1	<1	0.305 J	<1	0.535 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	0.985 J	1.41	<1	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				0.876	0	5.91	4.97	0	0.736
1,4-Dichlorobenzene	µg/L			<0.5	0.506 B	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L			<10	<10	<10	<10	<10	<10
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-144 L11040914-06 4/26/2011	MW-145 L11040914-07 4/26/2011	MW-147 L11040914-08 4/26/2011	MW-153 L11050034-13 4/28/2011	MW-169 L11050034-14 4/28/2011	MW-170 L11050034-15 4/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	24.1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	0.682 J	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.28 J	0.585	0.199 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	1.01	<1	<1	0.351 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.851 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	43.2	0.425 J	<1	<1	<1	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				69.4	1.69	0.199	0.351	0	0
1,4-Dichlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	1.06 B	0.597 B
Acetone	µg/L			2.64 J	2.64 J	<10	<10 UJ	<10 UJ	<10 UJ
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	0.969	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-171 L11050034-16 4/28/2011	MW-172 L11050034-17 4/28/2011	MW-174 L11040914-10 4/26/2011	MW-176 L11040914-11 4/26/2011	MW-178 L11050034-20 4/28/2011	MW-179 L11040914-12 4/26/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	0.673 J	0.805 J	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	0.271 B	0.243 J	0.208 J	1.43 B	0.175 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	0.503 J	0.413 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	0.324 J	0.392 J	<1	<1	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				0	1.77	1.85	0.208	1.43	0.175
1,4-Dichlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	0.129 B	<0.5
Acetone	µg/L			2.9 B	<10	<10	<10	<10	<10
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-180 L11040914-13 4/26/2011	MW-182 L11050034-21 4/28/2011	MW-184 L11050034-22 4/28/2011	MW-185 L11050034-23 4/28/2011	MW-186 L11050034-24 4/28/2011	MW-187 L11050034-25 4/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	2.36	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	2.23	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	<0.3	13.3	<0.3	<0.3	0.265 B
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	1.06	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	0.729 J	<1	<1	0.312 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	7.77	0.334 J	<1	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				0	0	27.4	0.334	0	0.577
1,4-Dichlorobenzene	µg/L			<0.5	0.433 B	<0.5	0.367 B	<0.5	0.386 B
Acetone	µg/L			<10	3.45 B	<10	2.75 B	43.2	<10
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-190 L11040914-14 4/26/2011	MW-221 L11040914-15 4/26/2011	MW-222 L11040914-16 4/26/2011	MW-223 L11040914-17 4/26/2011	MW-224 L11040914-18 4/26/2011	MW-225 L11040914-19 4/26/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	10.4	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.247 J	<0.3	0.523	2	1.01	0.667
cis-1,2-Dichloroethene	µg/L	70	35	0.405 J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.642 J	<1	<1	<1	<1	0.252 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	19.4	<1	<1	0.25 J	<1	2
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				31.1	0	0.523	2.25	1.01	2.92
1,4-Dichlorobenzene	µg/L			<0.5	<0.5	<0.5	0.128 J	<0.5	<0.5
Acetone	µg/L			3.29 J	<10	4.64 J	3.97 J	4.27 J	4.1 J
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-226 L11040914-20 4/26/2011	MW-227 L11040914-21 4/26/2011	MW-228 L11050034-26 4/28/2011	MW-231 L11050034-27 4/28/2011	MW-234 L11050034-28 4/28/2011	MW-235 L11050034-29 4/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	0.614 J	0.545 J	<1	<1	<1
Chloroform	µg/L	80	12	1.52	0.361	0.299 B	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	0.551 J	0.614 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				1.52	1.53	1.46	0	0	0
1,4-Dichlorobenzene	µg/L			<0.5	<0.5	<0.5	0.35 B	1.16 B	0.567 B
Acetone	µg/L			2.81 J	2.57 J	<10 UJ	<10	<10 UJ	<10 UJ
Chlorobenzene	µg/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 11
ANALYTICAL RESULTS SUMMARY – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well	MCL	TC	MW-237	MW-239	MW-240
	Lab ID Date Units			L11050034-32 4/28/2011	L11050034-33 4/28/2011	L11050034-34 4/28/2011
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	1.62	1.51	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1
Chloroform	µg/L	80	12	0.164 B	0.24 B	0.227 B
cis-1,2-Dichloroethene	µg/L	70	35	0.294 J	<1	0.569 J
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	<1	1.27
Vinyl chloride	µg/L	2	--	<1	<1	<1
Total Primary CVOCs				2.08	1.75	2.07
1,4-Dichlorobenzene	µg/L			0.608 B	0.675 B	0.772 B
Acetone	µg/L			<10 UJ	<10 UJ	<10 UJ
Chlorobenzene	µg/L			<0.5	<0.5	<0.5

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

B: Analyte identified in associated blank

UJ: Not Detected; RL estimated

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 12
PRIMARY CVOC RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

VOC Analyte	MCL (µg/L)	TC (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL	Number of Locations with Analyte Above TC
1,1,2,2-Tetrachloroethane	--	2.2	8	24.1	MW-144	--	4
1,1,2-Trichloroethane	5	1.9	0	--	--	0	0
1,1-Dichloroethene	7	7	4	13.9	MW-51	1	1
Carbon tetrachloride	5	3	2	2.23	MW-184	0	0
Chloroform	80	12	20	29.3	MW-71	0	3
cis-1,2-Dichloroethene	70	35	3	3.6	MW-32	0	0
Tetrachloroethene	5	2.5	2	2.47	MW-31	0	0
trans-1,2-Dichloroethene	100	50	0	--	--	0	0
Trichloroethene	5	5	14	43.2	MW-144	5	5
Vinyl chloride	2	--	0	0	--	0	--

Notes:

µg/L: micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TC: Target Concentration

TABLE 13
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-54 L11040913-05 4/25/2011	MW-70 L11040913-06 4/25/2011	MW-76 L11040913-09 4/25/2011	MW-77 L11040913-10 4/25/2011	MW-79 L11040913-11 4/25/2011	MW-148 L11030971-05 3/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	2.45	0.415 J	0.294 J	22	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	25.3	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.304	0.174 J	<0.3	0.325	0.155 J	0.185 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	0.746 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.616 J	0.716 J	<1	0.353 J	12.2	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	8.73	2	0.833 J	31.1	14.7	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				12.1	3.31	1.13	54.5	52.4	0.185
Acetone	µg/L			19.4	<10	<10	<10	<10	4.18 J

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 13
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-149 L11030971-06 3/28/2011	MW-150 L11030971-07 3/28/2011	MW-151 L11030971-08 3/28/2011	MW-152 L11030971-09 3/28/2011	MW-155 L11030971-10 3/28/2011	MW-157 L11030971-11 3/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	15	9.89	1.92	1.1	2.61	2.46
1,1,2-Trichloroethane	µg/L	5	1.9	0.764 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	4.35	<1	1.29	<1	<1	0.783 J
Chloroform	µg/L	80	12	75.2	0.16 J	12.3	<0.3	<0.3	7.1
cis-1,2-Dichloroethene	µg/L	70	35	6.21	0.304 J	1.24	<1	<1	1.69
Tetrachloroethene	µg/L	5	2.5	1.55	0.836 J	0.286 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	0.722 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	38.9	15.6	10.8	0.727 J	0.585 J	9.04
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				143	26.8	27.8	1.83	3.20	21.1
Acetone	µg/L			6.14 J	4.9 J	6.21 J	3.47 J	2.87 J	5.3 J

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 13
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-158 L11030971-12 3/28/2011	MW-158A L11030971-13 3/28/2011	MW-159 L11030971-14 3/28/2011	MW-160 L11030971-15 3/28/2011	MW-161 L11030971-16 3/28/2011	MW-162 L11030971-17 3/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	0.49 J	0.663	40.6	0.39 J	2.2	0.212 J
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	7.05	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	5	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	<0.3	0.301	<0.3	<0.3	0.159 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	50.7	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	1.21	<1	1.13	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	4.87	<1	<1	<1
Trichloroethene	µg/L	5	5	0.681 J	0.37 J	232	<1	4.14	<1
Vinyl chloride	µg/L	2	--	<1	<1	22.5	<1	<1	<1
Total Primary CVOCs				1.17	1.03	364	0.390	7.47	0.371
Acetone	µg/L			5.93 J	5.62 J	6.32 J	5.57 J	5.75 J	4.04 J

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 13
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-163 L11030971-18 3/28/2011	MW-164 L11030971-19 3/28/2011	MW-165 L11030971-22 3/28/2011	MW-165A L11030971-23 3/28/2011	MW-166 L11030971-24 3/28/2011	MW-166A L11030971-25 3/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	4.66	4.08	14.3	79	9.82	5.33
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	1.52	0.461 J	0.445 J	0.355 J
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	2.06	<1	<1	5.09	1.67
Chloroform	µg/L	80	12	0.19 J	13.9	0.245 J	0.793	21.8	21.2
cis-1,2-Dichloroethene	µg/L	70	35	0.359 J	3.8	0.459 J	0.414 J	13.5	5.47
Tetrachloroethene	µg/L	5	2.5	0.698 J	0.383 J	<1	<1	1.36	0.715 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	0.357 J	<1	<1	1.64	0.532 J
Trichloroethene	µg/L	5	5	7.43	17.8	11	13.1	129	38.2
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				13.3	42.4	27.5	93.8	183	73.5
Acetone	µg/L			5.8 J	5.18 J	4.85 J	6.17 J	5.78 J	5.97 J

Notes:

µg/L: micrograms per liter

-- : Not Listed

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Results detected at or above RL in bold

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8260B: Volatile Organic Compounds

TABLE 13
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-232 L11030971-26 3/28/2011	MW-241 L11030971-27 3/28/2011	MW-242 L11030971-28 3/28/2011	MW-243 L11030971-29 3/28/2011	MW-244 L11030971-30 3/28/2011	MW-245 L11030971-31 3/28/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	4.46	4.87	1.49	2.14
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	0.175 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	<1	0.362 J	2.09	2.63	0.723 J	1.26
Vinyl chloride	µg/L	2	--	0.585 J	<1	<1	<1	<1	<1
Total Primary CVOCs				0.585	0.537	6.55	7.50	2.21	3.40
Acetone	µg/L			7.39 J	3.72 J	5.16 J	5.04 J	3.82 J	5.32 J

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 13
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-246 L11030971-32 3/28/2011	MW-247 L11030971-33 3/28/2011	MW-248 L11030971-34 3/28/2011	MW-249 L11030971-35 3/28/2011	MW-250 L11040913-03 4/25/2011	MW-251 L11040913-04 4/25/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	10.8	24.7	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	0.689 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	3.56
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	1.46	<1	<1
Chloroform	µg/L	80	12	<0.3	0.525	<0.3	2.59	<0.3	0.276 J
cis-1,2-Dichloroethene	µg/L	70	35	0.582 J	<1	<1	0.29 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1	<1	<1	0.716 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	1.41	7.82	<1	1.83	<1	0.335 J
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				13.5	33.0	0	6.17	0	4.89
Acetone	µg/L			4.75 J	5.69 J	<10	4.92 J	19.9	17.7

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 14
 PRIMARY CVOC RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field - Defense Depot Memphis Tennessee

VOC Analyte	MCL (µg/L)	TC (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL	Number of Locations with Analyte Above TC
1,1,2,2-Tetrachloroethane	--	2.2	23	79	MW-165A	--	17
1,1,2-Trichloroethane	5	1.9	2	7.05	MW-159	1	1
1,1-Dichloroethene	7	7	3	25.3	MW-79	1	1
Carbon tetrachloride	5	3	6	5.09	MW-166	1	2
Chloroform	80	12	12	75.2	MW-149	0	5
cis-1,2-Dichloroethene	70	35	7	50.7	MW-159	0	5
Tetrachloroethene	5	2.5	5	12.2	MW-79	1	1
trans-1,2-Dichloroethene	100	50	2	4.87	MW-159	0	0
Trichloroethene	5	5	22	232	MW-159	15	15
Vinyl chloride	2	--	1	22.5	MW-159	1	--

Notes:

µg/L: micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TC: Target Concentration

TABLE 15
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-54 L11090899-36 9/26/2011	MW-70 L11090899-01 9/27/2011	MW-76 L11090899-02 9/27/2011	MW-77 L11090899-03 9/27/2011	MW-79 L11090899-04 9/27/2011	MW-148 L11090899-05 9/27/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	1.64	0.669	0.276 J	16.9	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	25.3	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	0.692	<0.3	0.15 J	0.425	1.31	0.164 J
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	0.442 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	0.537 J	1.03	0.3 J	0.369 J	15.4	0.254 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	4.4	1.64	0.717 J	21.2	19.7	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				7.27	3.34	1.44	39.3	61.7	0.418
Acetone	µg/L			4.42 J	4.05 J	2.85 J	4.96 J	4.86 J	<10

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

TC: Target Concentration

Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 15
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-149 L11090899-06 9/27/2011	MW-150 L11090899-37 9/26/2011	MW-151 L11090899-07 9/27/2011	MW-152 L11090899-08 9/27/2011	MW-155 L11090899-38 9/26/2011	MW-157 L11090899-09 9/27/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	12.1	15.5	2.45	<0.5	1.68	1.34
1,1,2-Trichloroethane	µg/L	5	1.9	0.42 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	2.26	<1	1.18	<1	<1	0.314 J
Chloroform	µg/L	80	12	34.5	0.878	16.3	<0.3	<0.3	3.46
cis-1,2-Dichloroethene	µg/L	70	35	3.14	0.757 J	0.998 J	<1	<1	0.659 J
Tetrachloroethene	µg/L	5	2.5	0.838 J	<1	0.3 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	0.27 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	18.4	28.1	10.5	0.478 J	0.709 J	4.18
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				71.9	45.2	31.7	0.478	2.39	9.95
Acetone	µg/L			12.9	7.75 J	<10	<10	<10	<10

Notes:

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TABLE 15
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-158 L11090899-42 9/27/2011	MW-158A L11090899-43 9/27/2011	MW-159 L11090899-10 9/27/2011	MW-160 L11090899-11 9/27/2011	MW-161 L11090899-12 9/27/2011	MW-162 L11090899-13 9/27/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	1.15	<0.5	32.5	<0.5	0.727	0.359 J
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	6.44	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	4.42	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	<0.3	0.289 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	49.9	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	1.11	<1	1.13	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	6.55	<1	<1	<1
Trichloroethene	µg/L	5	5	2	0.302 J	193	<1	2.06	0.554 J
Vinyl chloride	µg/L	2	--	<1	<1	16.7	<1	<1	<1
Total Primary CVOCs				3.15	0.302	311	0	3.92	0.913
Acetone	µg/L			<10	5.02 J	20.1 J	<10	<10	<10

Notes:

µg/L: micrograms per liter

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Results detected at or above RL in bold

DQE Flags:

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TABLE 15
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-163 L11090899-14 9/27/2011	MW-164 L11090899-15 9/27/2011	MW-165 L11090899-18 9/27/2011	MW-165A L11090899-19 9/27/2011	MW-166 L11090899-20 9/27/2011	MW-166A L11090899-21 9/27/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	5.74	2.64	10.6	33.9	14.3	12.1
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	1.18	<1	0.716 J	0.497 J
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	1.62	<1	<1	5.5	3.24
Chloroform	µg/L	80	12	<0.3	9	0.502	0.41	67.5	54.4
cis-1,2-Dichloroethene	µg/L	70	35	<1	2.25	0.546 J	0.251 J	6.33	4.57
Tetrachloroethene	µg/L	5	2.5	0.884 J	0.385 J	<1	<1	1.49	0.952 J
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	0.864 J	0.408 J
Trichloroethene	µg/L	5	5	10.7	12.1	8.33	6.67	50.2	28.9
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				17.3	28.0	21.2	41.2	147	105
Acetone	µg/L			3.86 J	4.14 J	3.13 J	3.56 J	6.51 J	9.91 J

Notes:

µg/L: micrograms per liter

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TABLE 15
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-232 L11090899-22 9/27/2011	MW-241 L11090899-44 9/27/2011	MW-242 L11090899-39 9/26/2011	MW-243 L11090899-23 9/27/2011	MW-244 L11090899-24 9/27/2011	MW-245 L11090899-45 9/27/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	<0.5	<0.5	0.937	4.42	2.59	1.42
1,1,2-Trichloroethane	µg/L	5	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	80	12	<0.3	0.132 J	0.384	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	0.275 J	0.736 J	1.32	1.56	0.624 J	0.824 J
Vinyl chloride	µg/L	2	--	0.483 J	<1	<1	<1	<1	<1
Total Primary CVOCs				0.758	0.868	2.64	5.98	3.21	2.24
Acetone	µg/L			21	<10	<10	<10	<10	<10

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

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Results detected at or above RL in bold

DQE Flags:

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Methods:

8260B: Volatile Organic Compounds

TABLE 15
ANALYTICAL RESULTS SUMMARY – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

	Well Lab ID			MW-246 L11090899-46 9/27/2011	MW-247 L11090899-25 9/27/2011	MW-248 L11090899-28 9/27/2011	MW-249 L11090899-29 9/27/2011	MW-251 L11090899-40 9/26/2011	MW-250 L11090899-30 9/27/2011
Analyte	Date	Units	MCL	TC					
1,1,2,2-Tetrachloroethane	µg/L	--	2.2	14.8	5.59	<0.5	0.6	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	5	1.9	0.294 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7	7	<1	<1	<1	<1	4.12	<1
Carbon tetrachloride	µg/L	5	3	<1	<1	<1	3.47	<1	<1
Chloroform	µg/L	80	12	<0.3	1.84	<0.3	19.9	0.322	<0.3
cis-1,2-Dichloroethene	µg/L	70	35	0.472	0.847 J	<1	0.892 J	<1	<1
Tetrachloroethene	µg/L	5	2.5	<1	<1	<1	0.51 J	0.626 J	<1
trans-1,2-Dichloroethene	µg/L	100	50	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5	5	1.74	2.53	<1	12.4	<1	<1
Vinyl chloride	µg/L	2	--	<1	<1	<1	<1	<1	<1
Total Primary CVOCs				17.3	10.8	0	37.8	0	5.07
Acetone	µg/L			<10	<10	<10	2.86 J	4.38 J	3.92 J

Notes:

µg/L: micrograms per liter

-- : Not Listed

MCL: Maximum Contaminant Level

MDL: Minimum Detection Limit

RL: Reporting Limit

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Results detected at or above RL in bold

DQE Flags:

J: Analyte positively identified, quantitation estimated.

<: Analyte not detected above RL

Methods:

8260B: Volatile Organic Compounds

TABLE 16
PRIMARY CVOC RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

VOC Analyte	MCL (µg/L)	TC (µg/L)	Number of Locations with Analyte Above RL	Maximum Concentrations (µg/L)	Location of Maximum Concentration	Number of Locations with Analyte Above MCL	Number of Locations with Analyte Above TC
1,1,2,2-Tetrachloroethane	--	2.2	24	33.9	MW-165A	--	15
1,1,2-Trichloroethane	5	1.9	2	6.44	MW-159	1	1
1,1-Dichloroethene	7	7	3	25.3	MW-79	1	1
Carbon tetrachloride	5	3	6	5.5	MW-166	1	3
Chloroform	80	12	16	67.5	MW-166	0	5
cis-1,2-Dichloroethene	70	35	5	49.9	MW-159	0	1
Tetrachloroethene	5	2.5	5	15.4	MW-79	1	1
trans-1,2-Dichloroethene	100	50	1	6.55	MW-159	0	0
Trichloroethene	5	5	22	193	MW-159	13	13
Vinyl chloride	2	--	1	16.7	MW-159	1	--

Notes:

µg/L: micrograms per liter

--: Not Listed

RL: reporting limit

MCL: Maximum Contaminant Level

TC: Target Concentration

TABLE 17
MANN-KENDALL TREND ANALYSIS - TeCA
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence Factor (CF)	Concentration Trend	Number of		Max	Min
			Variation	MK (S)			Sample Rounds	Detects		
MW-04	Background	TeCA	0.70	-1	50.0%	S	5	1	0.23	0.23
MW-05	Performance	TeCA	0.00	0	0.0%	N/A	2	0		
MW-06	Performance	TeCA	2.30	-64	100.0%	D	12	12	613	0.614
MW-13	Background	TeCA	1.95	0	45.2%	NT	8	2	2.64	0.66
MW-14	Background	TeCA	0.43	1	50.0%	NT	6	1	0.15	0.15
MW-15	Performance	TeCA	1.76	-28	98.4%	D	11	11	273	0.239
MW-31	Performance	TeCA	0.60	5	57.7%	NT	15	1	0.262	0.262
MW-32	Performance	TeCA	1.17	-32	91.7%	PD	16	12	46	1.59
MW-33	Performance	TeCA	0.51	-9	68.4%	ND	13	0		
MW-37	Sentinel	TeCA	1.36	-5	59.4%	NT	13	1	0.788	0.788
MW-44	Performance	TeCA	0.48	2	52.0%	ND	15	0		
MW-51	Background	TeCA	0.22	5	76.5%	ND	6	0		
MW-54	PMW	TeCA	1.22	-211	100.0%	D	24	24	4700	1.64
MW-57	Performance	TeCA	0.47	-1	50.0%	ND	17	0		
MW-58	Performance	TeCA	0.73	4	75.8%	NT	5	1	0.213	0.213
MW-65	Background	TeCA	0.00	0	0.0%	N/A	3	0		
MW-69	Performance	TeCA	2.99	3	54.3%	NT	14	2	5.51	0.229
MW-70	PMW	TeCA	1.35	-132	100.0%	D	21	20	9200	0.415
MW-71	Performance	TeCA	0.90	-31	93.0%	PD	15	15	27.6	0.892
MW-74	Performance	TeCA	1.60	-52	100.0%	D	13	13	1330	0.364
MW-75	Performance	TeCA	1.52	-10	95.2%	D	6	3	10.8	0.356
MW-76	PMW	TeCA	2.07	-88	99.8%	D	20	19	77	0.276
MW-77	PMW	TeCA	1.31	-144	100.0%	D	21	21	21700	5.34
MW-78	Performance	TeCA	2.11	-5	71.9%	NT	7	2	5.2	0.35
MW-79	PMW	TeCA	4.32	47	91.6%	PI	21	1	30.4	30.4
MW-87	Performance	TeCA	1.72	-8	80.1%	NT	8	8	180	0.939
MW-91	Performance	TeCA	1.05	4	70.3%	NT	6	3	0.92	0.26
MW-128	Background	TeCA	0.48	3	61.4%	ND	7	0		
MW-132	Performance	TeCA	1.71	-50	99.9%	D	13	9	2400	0.277
MW-144	Performance	TeCA	0.95	-117	100.0%	D	17	17	13000	24.1
MW-145	Performance	TeCA	0.64	12	68.7%	NT	16	1	0.274	0.274
MW-147	Performance	TeCA	1.30	-51	97.1%	D	18	13	634	0.373
MW-148	PMW	TeCA	1.61	-90	99.7%	D	21	15	21.2	0.179
MW-149	PMW	TeCA	0.63	-70	98.8%	D	20	20	50.4	1.53
MW-150	PMW	TeCA	0.98	-181	100.0%	D	22	22	10900	0.917
MW-151	PMW	TeCA	1.38	63	97.0%	I	21	10	2.45	0.23
MW-152	PMW	TeCA	4.00	-64	95.2%	D	23	21	1500	1.1
MW-153	Performance	TeCA	0.51	-13	79.0%	ND	12	0		
MW-155	PMW	TeCA	0.92	-96	99.8%	D	21	21	4090	1.68
MW-157	PMW	TeCA	1.04	-36	85.3%	NT	21	21	27	1.29
MW-158	PMW	TeCA	1.32	-118	100.0%	D	21	21	53	0.49
MW-158A	PMW	TeCA	1.07	-135	100.0%	D	21	20	844	0.663
MW-159	PMW	TeCA	1.35	-138	100.0%	D	21	21	3500	1.25
MW-160	PMW	TeCA	2.29	-70	98.8%	D	20	19	3560	0
MW-161	PMW	TeCA	1.15	-142	100.0%	D	19	19	4560	0.727
MW-162	PMW	TeCA	1.78	-84	99.9%	D	19	17	7210	0
MW-163	PMW	TeCA	1.33	-143	100.0%	D	19	19	4800	1.78
MW-164	PMW	TeCA	0.93	27	83.5%	NT	18	17	45	2.14
MW-165	PMW	TeCA	0.82	12	64.8%	NT	19	19	38.8	1.8
MW-165A	PMW	TeCA	1.34	61	98.3%	I	19	19	104	0.188
MW-166	PMW	TeCA	0.74	59	97.1%	I	20	20	28.5	0.519

TABLE 17
MANN-KENDALL TREND ANALYSIS - TeCA
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence Factor (CF)	Concentration Trend	Number of		Max	Min
			Variation	MK (S)			Sample Rounds	Detects		
MW-166A	PMW	TeCA	0.70	51	96.0%	I	19	19	13.6	0.149
MW-169	Sentinel	TeCA	0.98	-28	96.9%	ND	12	0		
MW-170	Sentinel	TeCA	0.98	-28	96.9%	ND	12	0		
MW-171	Sentinel	TeCA	0.98	-28	96.9%	ND	12	0		
MW-172	Background	TeCA	0.22	11	81.0%	ND	10	0		
MW-174	Performance	TeCA	1.28	8	68.1%	NT	12	6	2.08	0.315
MW-176	Performance	TeCA	0.26	8	89.8%	ND	6	0		
MW-178	Background	TeCA	0.22	11	81.0%	ND	10	0		
MW-179	Performance	TeCA	0.84	5	63.6%	NT	10	1	0.326	0.326
MW-180	Performance	TeCA	2.17	-16	90.7%	PD	10	4	44.2	0.763
MW-182	Sentinel	TeCA	0.24	4	75.8%	ND	5	0		
MW-184	Performance	TeCA	1.11	3	67.5%	NT	5	3	5.06	1.74
MW-185	Sentinel	TeCA	0.24	4	75.8%	ND	5	0		
MW-186	Sentinel	TeCA	1.12	1	50.0%	NT	5	1	0.43	0.43
MW-187	Background	TeCA	0.34	5	63.6%	NT	10	1	0.141	0.141
MW-190	Performance	TeCA	1.80	-15	99.9%	D	6	6	4410	10.4
MW-221	Performance	TeCA	3.11	-15	89.2%	NT	10	4	110	0.147
MW-222	Performance	TeCA	2.34	-30	99.7%	D	10	6	1130	1.19
MW-223	Performance	TeCA	2.11	-30	99.7%	D	10	7	30.3	0.227
MW-224	Performance	TeCA	3.15	9	75.8%	NT	10	1	140	140
MW-225	Performance	TeCA	1.46	-34	100.0%	D	10	8	75.9	0.926
MW-226	Performance	TeCA	3.01	-2	53.5%	NT	10	2	220	9.56
MW-227	Performance	TeCA	1.61	-30	99.7%	D	10	6	120	5.14
MW-228	Performance	TeCA	2.76	-21	96.4%	D	10	4	46	0.22
MW-231	Sentinel	TeCA	0.24	4	75.8%	ND	5	0		
MW-232	PMW-Sentinel	TeCA	0.35	15	85.9%	NT	11	1	0.163	0.157
MW-234	Sentinel	TeCA	1.18	-1	50.0%	NT	5	1	0.469	0.469
MW-235	Sentinel	TeCA	0.24	4	75.8%	ND	5	0		
MW-237	Sentinel	TeCA	0.24	4	75.8%	ND	5	0		
MW-239	Sentinel	TeCA	1.34	5	82.1%	NT	5	1	0.605	0.605
MW-240	Sentinel	TeCA	0.22	5	76.5%	ND	6	0		
MW-241	PMW	TeCA	2.59	-13	92.9%	PD	8	2	16.8	0.744
MW-242	PMW	TeCA	2.07	-26	100.0%	D	8	8	1040	0.937
MW-243	PMW	TeCA	1.20	-26	100.0%	D	8	8	90	4.42
MW-244	PMW	TeCA	1.86	-22	99.8%	D	8	8	1620	1.48
MW-245	PMW	TeCA	1.53	-26	100.0%	D	8	8	383	1.42
MW-246	PMW	TeCA	1.88	-18	98.4%	D	8	8	2290	9.79
MW-247	PMW	TeCA	0.73	0	45.2%	S	8	7	44.8	5.59
MW-248	PMW	TeCA	1.12	1	50.0%	NT	8	1	0.589	0.589
MW-249	PMW	TeCA	2.25	11	88.7%	NT	8	2	5.03	0.6
MW-250	PMW-Sentinel	TeCA	0.20	10	90.7%	ND	7	0		
MW-251	PMW-Sentinel	TeCA	0.20	10	90.7%	ND	7	0		

Notes:

D: Decreasing

I: Increasing

N/A: Insufficient Data

ND: Not Detected

NT: No Trend

PD: Probably Decreasing

PI: Probably Increasing

S: Stable

TABLE 18
MANN-KENDALL TREND ANALYSIS - PCE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence Factor (CF)	Concentration Trend	Number of		Max	Min
			Variation	MK (S)			Sample Rounds	Detects		
MW-04	Background	PCE	1.39	-7	92.1%	PD	5	2	33.4	23.4
MW-05	Performance	PCE	0.00	0	0.0%	N/A	2	0		
MW-06	Performance	PCE	0.95	-50	100.0%	D	12	8	1.9	0.254
MW-13	Background	PCE	1.02	-25	100.0%	D	8	5	4.69	0.571
MW-14	Background	PCE	0.83	1	50.0%	NT	6	1	0.507	0.507
MW-15	Performance	PCE	1.10	-41	100.0%	D	11	11	14.4	0.442
MW-31	Performance	PCE	1.71	53	99.6%	I	15	15	43.5	0.31
MW-32	Performance	PCE	1.26	2	51.8%	NT	16	10	5.41	0.37
MW-33	Performance	PCE	0.26	-3	54.8%	S	13	1	0.254	0.254
MW-37	Sentinel	PCE	0.81	-13	76.4%	S	13	1	0.637	0.637
MW-44	Performance	PCE	0.13	-18	79.6%	ND	15	0		
MW-51	Background	PCE	0.34	5	76.5%	NT	6	6	2.3	0.3
MW-54	PMW	PCE	1.05	-58	92.1%	PD	24	20	14.2	0.537
MW-57	Performance	PCE	0.57	-68	99.8%	D	17	16	5.06	0.27
MW-58	Performance	PCE	0.51	2	59.2%	NT	5	1	0.309	0.309
MW-65	Background	PCE	0.00	0	0.0%	N/A	3	0		
MW-69	Performance	PCE	1.20	-44	99.2%	D	14	11	4.72	0.271
MW-70	PMW	PCE	1.71	4	53.6%	NT	21	17	29.5	0.58
MW-71	Performance	PCE	1.28	-30	92.3%	PD	15	12	7.34	0.265
MW-74	Performance	PCE	1.64	-20	87.4%	NT	13	13	8.93	0.473
MW-75	Performance	PCE	0.43	1	50.0%	NT	6	6	1.31	0.46
MW-76	PMW	PCE	1.07	-78	99.4%	D	20	18	4.82	0.27
MW-77	PMW	PCE	1.52	-65	97.4%	D	21	17	48	0.353
MW-78	Performance	PCE	0.00	0	43.7%	ND	7	0		
MW-79	PMW	PCE	1.65	27	78.1%	NT	21	20	50.8	0.47
MW-87	Performance	PCE	1.10	-18	98.4%	D	8	3	1.45	0.676
MW-91	Performance	PCE	0.44	-13	99.2%	D	6	6	1.18	0.305
MW-128	Background	PCE	0.17	-9	88.1%	S	7	1	0.18	0.15
MW-132	Performance	PCE	1.40	-24	91.8%	PD	13	13	8.3	0.303
MW-144	Performance	PCE	0.97	-27	85.6%	S	17	14	19.9	0
MW-145	Performance	PCE	0.13	-15	73.3%	ND	16	0		
MW-147	Performance	PCE	0.83	-66	99.4%	D	18	13	12.2	2.95
MW-148	PMW	PCE	0.89	-133	100.0%	D	21	15	7.83	0.254
MW-149	PMW	PCE	0.51	-51	94.8%	PD	20	20	3.81	0.623
MW-150	PMW	PCE	1.06	-51	92.0%	PD	22	18	18.9	0.361
MW-151	PMW	PCE	1.02	-27	78.1%	NT	21	10	1.69	0.286
MW-152	PMW	PCE	0.90	-58	93.4%	PD	23	17	15.7	0.681
MW-153	Performance	PCE	0.71	-13	79.0%	S	12	5	0.714	0.24
MW-155	PMW	PCE	1.14	-32	82.3%	NT	21	12	16.3	0.6
MW-157	PMW	PCE	0.88	-63	97.0%	D	21	17	7.43	1.03
MW-158	PMW	PCE	0.87	-56	95.1%	D	21	16	9.28	0.697
MW-158A	PMW	PCE	0.95	-76	98.9%	D	21	14	17.8	0.252
MW-159	PMW	PCE	0.82	-13	64.0%	S	21	19	9.33	0.93
MW-160	PMW	PCE	0.88	-136	100.0%	D	20	14	21	0.251
MW-161	PMW	PCE	0.99	-64	98.7%	D	19	17	13	0.541
MW-162	PMW	PCE	1.17	-99	100.0%	D	19	10	16.2	0.308
MW-163	PMW	PCE	1.23	-60	98.1%	D	19	16	12.6	0.487
MW-164	PMW	PCE	0.76	-6	57.4%	S	18	16	3.62	0.383
MW-165	PMW	PCE	0.58	-68	99.1%	D	19	16	2.3	0.327
MW-165A	PMW	PCE	0.90	-70	99.3%	D	19	12	2.49	0.252
MW-166	PMW	PCE	0.47	72	99.0%	I	20	19	2.47	0.498

TABLE 18
MANN-KENDALL TREND ANALYSIS - PCE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence	Concentration	Number of		Max	Min
			Variation	MK (S)	Factor (CF)	Trend	Sample	Detects		
							Rounds			
MW-166A	PMW	PCE	0.39	3	52.7%	NT	19	19	1.57	0.24
MW-169	Sentinel	PCE	0.64	-35	99.2%	ND	12	0		
MW-170	Sentinel	PCE	0.71	-32	98.4%	D	12	1	0.485	0.485
MW-171	Sentinel	PCE	0.64	-35	99.2%	ND	12	0		
MW-172	Background	PCE	0.72	14	87.3%	NT	10	4	0.59	0.296
MW-174	Performance	PCE	0.79	-13	79.0%	S	12	10	1.9	0.297
MW-176	Performance	PCE	0.65	-9	93.2%	PD	6	2	0.44	0.287
MW-178	Background	PCE	1.06	-36	100.0%	D	10	7	2.8	0.263
MW-179	Performance	PCE	0.75	-26	98.9%	D	10	8	1.77	0.281
MW-180	Performance	PCE	1.35	-19	94.6%	PD	10	5	5.02	0.766
MW-182	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-184	Performance	PCE	1.46	4	75.8%	NT	5	4	4.98	0.393
MW-185	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-186	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-187	Background	PCE	0.51	6	66.8%	NT	10	3	0.36	0.253
MW-190	Performance	PCE	1.33	-11	97.2%	D	6	6	12.5	0.588
MW-221	Performance	PCE	2.17	-24	98.2%	D	10	3	6.9	0.893
MW-222	Performance	PCE	1.88	-28	99.4%	D	10	7	5.7	0.312
MW-223	Performance	PCE	1.38	-23	97.7%	D	10	9	3.7	0.262
MW-224	Performance	PCE	0.92	-38	100.0%	D	10	7	2.23	0.436
MW-225	Performance	PCE	0.71	-23	97.7%	D	10	10	2.3	0.252
MW-226	Performance	PCE	1.88	-10	78.4%	NT	10	7	7.1	0.417
MW-227	Performance	PCE	1.65	-23	97.7%	D	10	10	22	0.267
MW-228	Performance	PCE	1.19	15	89.2%	NT	10	5	1.8	0.399
MW-231	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-232	PMW-Sentinel	PCE	0.44	-10	75.3%	S	11	1	0.334	0.334
MW-234	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-235	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-237	Sentinel	PCE	0.37	-3	67.5%	S	5	3	0.286	0.256
MW-239	Sentinel	PCE	0.00	0	40.8%	ND	5	0		
MW-240	Sentinel	PCE	0.00	0	42.3%	ND	6	0		
MW-241	PMW	PCE	0.00	0	45.2%	ND	8	0		
MW-242	PMW	PCE	2.14	-16	96.9%	D	8	2	4.54	0.373
MW-243	PMW	PCE	1.55	-13	92.9%	PD	8	2	2.77	2.48
MW-244	PMW	PCE	1.88	-13	92.9%	PD	8	1	3.17	3.17
MW-245	PMW	PCE	1.73	-13	92.9%	PD	8	2	6.38	4.55
MW-246	PMW	PCE	1.69	-11	88.7%	NT	8	2	5.47	5.3
MW-247	PMW	PCE	1.62	-13	92.9%	PD	8	2	3.81	3.38
MW-248	PMW	PCE	0.00	0	45.2%	ND	8	0		
MW-249	PMW	PCE	0.79	7	76.4%	NT	8	1	0.51	0.51
MW-250	PMW-Sentinel	PCE	0.00	0	43.7%	ND	7	0		
MW-251	PMW-Sentinel	PCE	0.08	7	80.9%	NT	7	7	0.716	0.572

Notes:

D: Decreasing

I: Increasing

N/A: Insufficient Data

ND: Not Detected

NT: No Trend

PD: Probably Decreasing

PI: Probably Increasing

S: Stable

TABLE 19
MANN-KENDALL TREND ANALYSIS - TCE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence Factor (CF)	Concentration Trend	Number of		Max	Min
			Variation	MK (S)			Sample Rounds	Detects		
MW-04	Background	TCE	1.26	-7	92.1%	PD	5	2	2.23	1.11
MW-05	Performance	TCE	0.00	0	0.0%	N/A	2	0		
MW-06	Performance	TCE	1.41	-60	100.0%	D	12	12	236	1.75
MW-13	Background	TCE	0.99	-10	86.2%	S	8	3	0.91	0.262
MW-14	Background	TCE	0.00	0	42.3%	ND	6	0		
MW-15	Performance	TCE	1.23	-43	100.0%	D	11	11	403	0.289
MW-31	Performance	TCE	0.71	15	75.2%	NT	15	15	34.2	1.83
MW-32	Performance	TCE	1.22	-6	58.8%	NT	16	15	113	2.47
MW-33	Performance	TCE	0.14	-18	84.7%	ND	13	0		
MW-37	Sentinel	TCE	2.14	-13	76.4%	NT	13	1	2.71	2.71
MW-44	Performance	TCE	0.52	0	48.0%	S	15	11	0.75	0.252
MW-51	Background	TCE	0.28	9	93.2%	PI	6	6	10.4	3.8
MW-54	PMW	TCE	1.04	-204	100.0%	D	24	24	2700	4.4
MW-57	Performance	TCE	0.43	-42	95.4%	D	17	17	48	1.84
MW-58	Performance	TCE	0.57	-6	88.3%	S	5	4	0.67	0.26
MW-65	Background	TCE	0.00	0	0.0%	N/A	3	0		
MW-69	Performance	TCE	1.52	-33	96.0%	D	14	8	9.84	0.334
MW-70	PMW	TCE	1.35	-136	100.0%	D	21	21	3700	0.581
MW-71	Performance	TCE	1.42	-41	97.7%	D	15	15	158	0.612
MW-74	Performance	TCE	2.11	-50	99.9%	D	13	13	1240	0.458
MW-75	Performance	TCE	2.26	-9	93.2%	PD	6	2	31.5	1.71
MW-76	PMW	TCE	2.59	-108	100.0%	D	20	20	336	0.717
MW-77	PMW	TCE	1.20	-123	100.0%	D	21	21	6500	5.68
MW-78	Performance	TCE	0.81	-9	88.1%	S	7	2	0.59	0.26
MW-79	PMW	TCE	0.88	7	57.1%	NT	21	21	39	0.501
MW-87	Performance	TCE	1.38	-12	91.1%	PD	8	7	105	0.778
MW-91	Performance	TCE	1.07	-5	76.5%	NT	6	5	13.8	0.567
MW-128	Background	TCE	1.24	-16	99.0%	D	7	5	38	0.42
MW-132	Performance	TCE	2.01	-52	100.0%	D	13	9	1570	0.305
MW-144	Performance	TCE	0.82	-92	100.0%	D	17	17	4500	0
MW-145	Performance	TCE	0.49	3	53.6%	NT	16	1	0.425	0.425
MW-147	Performance	TCE	0.92	-87	100.0%	D	18	14	278	0.313
MW-148	PMW	TCE	1.35	-110	100.0%	D	21	16	266	0.613
MW-149	PMW	TCE	0.45	-25	78.0%	S	20	20	87.9	12.2
MW-150	PMW	TCE	0.92	-144	100.0%	D	22	22	3060	0.515
MW-151	PMW	TCE	0.56	81	99.3%	I	21	21	20.1	0.422
MW-152	PMW	TCE	1.47	-65	95.4%	D	23	23	950	0.478
MW-153	Performance	TCE	0.55	-6	63.1%	S	12	3	0.469	0.251
MW-155	PMW	TCE	0.93	-91	99.8%	D	21	21	2220	0.408
MW-157	PMW	TCE	0.60	-44	90.2%	PD	21	21	286	4.18
MW-158	PMW	TCE	1.01	-71	98.4%	D	21	21	162	0
MW-158A	PMW	TCE	0.93	-118	100.0%	D	21	21	689	0.302
MW-159	PMW	TCE	0.71	-91	99.8%	D	21	21	2700	120
MW-160	PMW	TCE	1.26	-84	99.7%	D	20	16	1130	0.323
MW-161	PMW	TCE	1.08	-136	100.0%	D	19	19	2170	2.06
MW-162	PMW	TCE	1.23	-102	100.0%	D	19	17	1610	0
MW-163	PMW	TCE	1.24	-127	100.0%	D	19	19	2030	3.4
MW-164	PMW	TCE	0.55	-50	96.9%	D	18	18	136	12.1
MW-165	PMW	TCE	0.71	-25	79.7%	S	19	19	194	8.33
MW-165A	PMW	TCE	0.80	-59	97.9%	D	19	19	165	2.3
MW-166	PMW	TCE	1.09	107	100.0%	I	20	20	223	5.78

TABLE 19
MANN-KENDALL TREND ANALYSIS - TCE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-166A	PMW	TCE	0.65	61	98.3%	I	19	19	85.9	5.2
MW-169	Sentinel	TCE	0.64	-35	99.2%	ND	12	0		
MW-170	Sentinel	TCE	0.64	-35	99.2%	ND	12	0		
MW-171	Sentinel	TCE	0.64	-35	99.2%	ND	12	0		
MW-172	Background	TCE	2.09	-16	90.7%	PD	10	4	7	0.324
MW-174	Performance	TCE	1.60	-26	95.7%	D	12	8	33	0.392
MW-176	Performance	TCE	1.45	-10	95.2%	D	6	3	3.07	0.579
MW-178	Background	TCE	2.32	-29	99.5%	D	10	5	130	0.373
MW-179	Performance	TCE	1.46	-24	98.2%	D	10	4	2.11	0.264
MW-180	Performance	TCE	2.33	-19	94.6%	PD	10	5	78	0.893
MW-182	Sentinel	TCE	1.14	-4	75.8%	NT	5	1	0.77	0.77
MW-184	Performance	TCE	1.47	-2	59.2%	NT	5	5	84	2.27
MW-185	Sentinel	TCE	1.01	-6	88.3%	NT	5	4	1.88	0.334
MW-186	Sentinel	TCE	1.02	-2	59.2%	NT	5	4	4.92	0.422
MW-187	Background	TCE	2.27	-15	89.2%	NT	10	2	3.7	0.26
MW-190	Performance	TCE	1.78	-13	99.2%	D	6	6	2720	19.4
MW-221	Performance	TCE	3.05	-26	98.9%	D	10	4	140	0.501
MW-222	Performance	TCE	2.40	-32	99.9%	D	10	8	1100	1.04
MW-223	Performance	TCE	2.37	-31	99.8%	D	10	10	500	0.25
MW-224	Performance	TCE	2.72	-17	92.2%	PD	10	2	92	13.4
MW-225	Performance	TCE	1.81	-39	100.0%	D	10	10	320	1.75
MW-226	Performance	TCE	3.04	-24	98.2%	D	10	3	740	0.855
MW-227	Performance	TCE	1.75	-32	99.9%	D	10	7	420	0.378
MW-228	Performance	TCE	2.95	-22	97.1%	D	10	3	42	0.911
MW-231	Sentinel	TCE	0.00	0	40.8%	ND	5	0		
MW-232	PMW-Sentinel	TCE	3.03	-13	82.1%	NT	11	6	26.9	0.275
MW-234	Sentinel	TCE	0.00	0	40.8%	ND	5	0		
MW-235	Sentinel	TCE	0.00	0	40.8%	ND	5	0		
MW-237	Sentinel	TCE	0.00	0	40.8%	ND	5	0		
MW-239	Sentinel	TCE	0.00	0	40.8%	ND	5	0		
MW-240	Sentinel	TCE	0.23	-11	97.2%	D	6	6	2.42	1.27
MW-241	PMW	TCE	0.88	-18	98.4%	D	8	8	3.23	0.362
MW-242	PMW	TCE	2.20	-28	100.0%	D	8	8	308	1.32
MW-243	PMW	TCE	1.63	-22	99.8%	D	8	8	146	1.56
MW-244	PMW	TCE	2.03	-22	99.8%	D	8	8	346	0.389
MW-245	PMW	TCE	1.78	-28	100.0%	D	8	8	473	0.824
MW-246	PMW	TCE	1.93	-18	98.4%	D	8	8	1800	1.17
MW-247	PMW	TCE	1.61	-8	80.1%	NT	8	8	134	0.431
MW-248	PMW	TCE	0.00	0	45.2%	ND	8	0		
MW-249	PMW	TCE	1.81	19	98.9%	I	8	6	12.4	0.519
MW-250	PMW-Sentinel	TCE	0.00	0	43.7%	ND	7	0		
MW-251	PMW-Sentinel	TCE	0.49	-15	98.5%	D	7	6	0.707	0.256

Notes:

D: Decreasing

I: Increasing

N/A: Insufficient Data

ND: Not Detected

NT: No Trend

PD: Probably Decreasing

PI: Probably Increasing

S: Stable

TABLE 20
MANN-KENDALL TREND ANALYSIS - DCE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-04	Background	DCE	0.00	0	40.8%	ND	5	0		
MW-05	Performance	DCE	0.00	0	0.0%	N/A	2	0		
MW-06	Performance	DCE	0.26	7	65.6%	ND	12	0		
MW-13	Background	DCE	0.00	0	45.2%	ND	8	0		
MW-14	Background	DCE	0.00	0	42.3%	ND	6	0		
MW-15	Performance	DCE	0.28	6	64.8%	ND	11	0		
MW-31	Performance	DCE	0.51	-17	78.2%	S	15	15	40	1.17
MW-32	Performance	DCE	0.14	15	73.3%	ND	16	0		
MW-33	Performance	DCE	0.16	18	84.7%	ND	13	0		
MW-37	Sentinel	DCE	0.16	18	84.7%	ND	13	0		
MW-44	Performance	DCE	0.15	18	79.6%	ND	15	0		
MW-51	Background	DCE	0.17	-9	93.2%	PD	6	6	21	13.9
MW-54	PMW	DCE	0.72	32	77.7%	ND	24	0		
MW-57	Performance	DCE	0.40	27	85.6%	NT	17	1	0.54	0.538
MW-58	Performance	DCE	0.00	0	40.8%	ND	5	0		
MW-65	Background	DCE	0.00	0	0.0%	N/A	3	0		
MW-69	Performance	DCE	0.15	21	86.0%	ND	14	0		
MW-70	PMW	DCE	1.10	-38	86.6%	NT	21	6	3.36	1.07
MW-71	Performance	DCE	0.15	18	79.6%	ND	15	0		
MW-74	Performance	DCE	0.25	4	57.1%	ND	13	0		
MW-75	Performance	DCE	0.00	0	42.3%	ND	6	0		
MW-76	PMW	DCE	0.13	33	84.9%	ND	20	0		
MW-77	PMW	DCE	2.38	3	52.4%	ND	21	0		
MW-78	Performance	DCE	0.00	0	43.7%	ND	7	0		
MW-79	PMW	DCE	0.63	72	98.5%	I	21	21	35.7	1.17
MW-87	Performance	DCE	0.00	0	45.2%	ND	8	0		
MW-91	Performance	DCE	0.00	0	42.3%	ND	6	0		
MW-128	Background	DCE	1.50	-16	99.0%	D	7	5	310	0.74
MW-132	Performance	DCE	1.16	-4	57.1%	NT	13	1	1.8	1.8
MW-144	Performance	DCE	1.33	-1	50.0%	ND	17	0		
MW-145	Performance	DCE	0.14	15	73.3%	ND	16	0		
MW-147	Performance	DCE	1.08	-57	98.4%	D	18	10	5.65	0.657
MW-148	PMW	DCE	0.19	6	55.9%	NT	21	1	0.43	0.426
MW-149	PMW	DCE	0.13	27	79.8%	ND	20	0		
MW-150	PMW	DCE	1.46	-7	56.6%	NT	22	3	0.99	0.619
MW-151	PMW	DCE	3.83	17	68.4%	NT	21	1	25.5	25.5
MW-152	PMW	DCE	0.45	25	73.5%	NT	23	1	0.76	0.758
MW-153	Performance	DCE	0.43	-16	84.5%	S	12	11	9.1	2.99
MW-155	PMW	DCE	1.56	8	58.3%	NT	21	4	2.84	0.559
MW-157	PMW	DCE	0.26	27	78.1%	ND	21	0		
MW-158	PMW	DCE	0.13	24	75.4%	ND	21	0		
MW-158A	PMW	DCE	0.98	-11	61.8%	S	21	4	1.65	0.392
MW-159	PMW	DCE	1.05	133	100.0%	I	21	10	8.51	1.12
MW-160	PMW	DCE	0.80	4	53.8%	NT	20	3	1.05	0.538
MW-161	PMW	DCE	1.43	-30	84.3%	ND	19	0		
MW-162	PMW	DCE	2.15	-1	50.0%	ND	19	0		
MW-163	PMW	DCE	0.97	-9	60.9%	ND	19	0		
MW-164	PMW	DCE	0.14	39	92.4%	ND	18	0		
MW-165	PMW	DCE	2.14	15	68.6%	ND	19	0		
MW-165A	PMW	DCE	0.64	15	68.6%	ND	19	0		
MW-166	PMW	DCE	0.27	11	62.6%	ND	20	0		

TABLE 20
MANN-KENDALL TREND ANALYSIS - DCE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-166A	PMW	DCE	0.27	15	68.6%	ND	19	0		
MW-169	Sentinel	DCE	0.35	13	79.0%	ND	12	0		
MW-170	Sentinel	DCE	0.78	-36	99.3%	D	12	8	4.37	1.3
MW-171	Sentinel	DCE	0.44	8	68.1%	NT	12	1	0.54	0.544
MW-172	Background	DCE	0.29	7	70.0%	ND	10	0		
MW-174	Performance	DCE	0.26	7	65.6%	ND	12	0		
MW-176	Performance	DCE	0.00	0	42.3%	ND	6	0		
MW-178	Background	DCE	0.29	7	70.0%	ND	10	0		
MW-179	Performance	DCE	0.29	7	70.0%	ND	10	0		
MW-180	Performance	DCE	1.18	8	72.9%	NT	10	3	2.04	0.558
MW-182	Sentinel	DCE	0.00	0	40.8%	ND	5	0		
MW-184	Performance	DCE	0.00	0	40.8%	ND	5	0		
MW-185	Sentinel	DCE	0.00	0	40.8%	ND	5	0		
MW-186	Sentinel	DCE	0.00	0	40.8%	ND	5	0		
MW-187	Background	DCE	0.29	7	70.0%	ND	10	0		
MW-190	Performance	DCE	0.00	0	42.3%	ND	6	0		
MW-221	Performance	DCE	0.29	9	75.8%	ND	10	0		
MW-222	Performance	DCE	0.08	9	75.8%	ND	10	0		
MW-223	Performance	DCE	0.24	9	75.8%	ND	10	0		
MW-224	Performance	DCE	0.29	9	75.8%	ND	10	0		
MW-225	Performance	DCE	0.29	9	75.8%	ND	10	0		
MW-226	Performance	DCE	0.24	9	75.8%	ND	10	0		
MW-227	Performance	DCE	0.29	9	75.8%	ND	10	0		
MW-228	Performance	DCE	0.29	9	75.8%	ND	10	0		
MW-231	Sentinel	DCE	0.00	0	40.8%	ND	5	0		
MW-232	PMW-Sentinel	DCE	1.04	-19	91.8%	PD	11	2	1.6	0.704
MW-234	Sentinel	DCE	0.00	0	40.8%	ND	5	0		
MW-235	Sentinel	DCE	0.00	0	40.8%	ND	5	0		
MW-237	Sentinel	DCE	0.13	-8	95.8%	D	5	5	2.2	1.62
MW-239	Sentinel	DCE	0.60	6	88.3%	NT	5	4	1.51	0.536
MW-240	Sentinel	DCE	0.00	0	42.3%	ND	6	0		
MW-241	PMW	DCE	0.00	0	45.2%	ND	8	0		
MW-242	PMW	DCE	0.31	-5	68.3%	ND	8	0		
MW-243	PMW	DCE	0.00	0	45.2%	ND	8	0		
MW-244	PMW	DCE	1.91	-13	92.9%	PD	8	1	6.73	6.73
MW-245	PMW	DCE	1.17	-13	92.9%	PD	8	2	2.03	1.85
MW-246	PMW	DCE	1.91	-13	92.9%	PD	8	2	36.2	18.2
MW-247	PMW	DCE	0.00	0	45.2%	ND	8	0		
MW-248	PMW	DCE	0.00	0	45.2%	ND	8	0		
MW-249	PMW	DCE	0.00	0	45.2%	ND	8	0		
MW-250	PMW-Sentinel	DCE	0.00	0	43.7%	ND	7	0		
MW-251	PMW-Sentinel	DCE	0.12	5	71.9%	NT	7	7	4.12	2.9

Notes:

D: Decreasing

I: Increasing

N/A: Insufficient Data

ND: Not Detected

NT: No Trend

PD: Probably Decreasing

PI: Probably Increasing

S: Stable

TABLE 21
MANN-KENDALL TREND ANALYSIS - CT
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence	Concentration	Number of		Max	Min
			Variation	MK (S)	Factor (CF)	Trend	Sample	Detects		
							Rounds			
MW-04	Background	CT	0.00	0	40.8%	ND	5	0		
MW-05	Performance	CT	0.00	0	0.0%	N/A	2	0		
MW-06	Performance	CT	1.43	-60	100.0%	D	12	8	31.2	0.463
MW-13	Background	CT	0.00	0	45.2%	ND	8	0		
MW-14	Background	CT	0.83	8	89.8%	NT	6	3	0.939	0.56
MW-15	Performance	CT	1.24	-43	100.0%	D	11	11	58.2	0.288
MW-31	Performance	CT	0.62	-18	79.6%	S	15	4	0.48	0.18
MW-32	Performance	CT	0.98	-21	81.3%	S	16	12	20.2	1.21
MW-33	Performance	CT	1.15	2	52.4%	NT	13	5	1.5	0.278
MW-37	Sentinel	CT	2.50	-13	76.4%	NT	13	1	4.12	4.12
MW-44	Performance	CT	0.59	-36	95.9%	D	15	11	1.3	0.5
MW-51	Background	CT	0.00	0	42.3%	ND	6	0		
MW-54	PMW	CT	1.35	-39	82.5%	NT	24	12	6.76	0.745
MW-57	Performance	CT	0.74	-89	100.0%	D	17	15	33	0.9
MW-58	Performance	CT	0.97	7	92.1%	PI	5	2	0.946	0.81
MW-65	Background	CT	0.00	0	0.0%	N/A	3	0		
MW-69	Performance	CT	0.13	-21	86.0%	ND	14	0		
MW-70	PMW	CT	1.49	-44	90.2%	PD	21	1	0.575	0.575
MW-71	Performance	CT	0.98	-42	98.0%	D	15	13	37.8	0.301
MW-74	Performance	CT	0.16	4	57.1%	ND	13	0		
MW-75	Performance	CT	0.00	0	42.3%	ND	6	0		
MW-76	PMW	CT	0.12	-33	84.9%	ND	20	0		
MW-77	PMW	CT	1.77	-53	94.2%	PD	21	4	1.12	0.922
MW-78	Performance	CT	0.00	0	43.7%	ND	7	0		
MW-79	PMW	CT	0.81	-100	99.9%	D	21	4	0.77	0.2
MW-87	Performance	CT	1.55	-18	98.4%	D	8	3	18.7	7.16
MW-91	Performance	CT	1.14	-13	99.2%	D	6	6	9.35	0.391
MW-128	Background	CT	0.12	-2	55.7%	ND	7	0		
MW-132	Performance	CT	0.19	-4	57.1%	ND	13	0		
MW-144	Performance	CT	1.12	-15	71.5%	NT	17	4	1.59	0.9
MW-145	Performance	CT	0.82	3	53.6%	NT	16	1	0.682	0.682
MW-147	Performance	CT	1.27	-84	100.0%	D	18	11	4.3	0.36
MW-148	PMW	CT	0.82	-107	100.0%	D	21	6	0.73	0.19
MW-149	PMW	CT	0.60	-112	100.0%	D	20	20	22	1.78
MW-150	PMW	CT	1.25	-36	83.6%	NT	22	3	1.54	0.31
MW-151	PMW	CT	0.77	-56	95.1%	D	21	20	6.19	0.493
MW-152	PMW	CT	1.52	-55	92.2%	PD	23	5	2.1	0.24
MW-153	Performance	CT	0.14	-21	91.3%	ND	12	0		
MW-155	PMW	CT	1.83	-6	55.9%	ND	21	0		
MW-157	PMW	CT	0.93	-106	99.9%	D	21	20	26	0.314
MW-158	PMW	CT	0.11	-24	75.4%	ND	21	0		
MW-158A	PMW	CT	1.26	-28	79.0%	NT	21	4	1.54	0.55
MW-159	PMW	CT	1.55	-4	53.6%	NT	21	4	4.13	0.252
MW-160	PMW	CT	0.93	-74	99.2%	D	20	10	1.91	0.388
MW-161	PMW	CT	1.49	-70	99.3%	D	19	5	5.68	0.339
MW-162	PMW	CT	2.02	-48	95.0%	PD	19	1	0.49	0.49
MW-163	PMW	CT	1.03	-81	99.8%	D	19	3	0.882	0.683
MW-164	PMW	CT	0.83	-43	94.4%	PD	18	18	24.8	1.62
MW-165	PMW	CT	1.09	-88	99.9%	D	19	11	11	0.769
MW-165A	PMW	CT	1.07	-75	99.6%	D	19	11	16.4	0.449
MW-166	PMW	CT	0.72	35	86.3%	NT	20	20	16.5	0.83

TABLE 21
MANN-KENDALL TREND ANALYSIS - CT
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of		Confidence	Concentration	Number of		Max	Min
			Variation	MK (S)	Factor (CF)	Trend	Sample	Detects		
							Rounds			
MW-166A	PMW	CT	0.60	-71	99.4%	D	19	18	9.75	0.996
MW-169	Sentinel	CT	0.64	-35	99.2%	ND	12	0		
MW-170	Sentinel	CT	0.64	-35	99.2%	ND	12	0		
MW-171	Sentinel	CT	0.64	-35	99.2%	ND	12	0		
MW-172	Background	CT	0.98	5	63.6%	NT	10	5	1.5	0.35
MW-174	Performance	CT	1.06	-16	84.5%	NT	12	9	5.9	0.607
MW-176	Performance	CT	0.68	-3	64.0%	S	6	1	0.415	0.415
MW-178	Background	CT	0.19	7	70.0%	ND	10	0		
MW-179	Performance	CT	0.19	7	70.0%	ND	10	0		
MW-180	Performance	CT	0.95	-17	92.2%	PD	10	2	0.72	0.26
MW-182	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-184	Performance	CT	0.68	-2	59.2%	S	5	5	13.4	2.23
MW-185	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-186	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-187	Background	CT	1.11	-7	70.0%	NT	10	1	0.8	0.8
MW-190	Performance	CT	1.14	-7	86.4%	NT	6	2	1.17	0.63
MW-221	Performance	CT	0.19	9	75.8%	ND	10	0		
MW-222	Performance	CT	0.33	-9	75.8%	ND	10	0		
MW-223	Performance	CT	0.55	-17	92.2%	PD	10	2	0.39	0.283
MW-224	Performance	CT	0.19	9	75.8%	ND	10	0		
MW-225	Performance	CT	0.19	9	75.8%	ND	10	0		
MW-226	Performance	CT	0.05	9	75.8%	ND	10	0		
MW-227	Performance	CT	1.66	-29	99.5%	D	10	9	43	0.524
MW-228	Performance	CT	1.60	7	70.0%	NT	10	5	3.4	0.327
MW-231	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-232	PMW-Sentinel	CT	0.00	0	46.9%	ND	11	0		
MW-234	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-235	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-237	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-239	Sentinel	CT	0.00	0	40.8%	ND	5	0		
MW-240	Sentinel	CT	0.00	0	42.3%	ND	6	0		
MW-241	PMW	CT	0.00	0	45.2%	ND	8	0		
MW-242	PMW	CT	0.31	-5	68.3%	ND	8	0		
MW-243	PMW	CT	0.00	0	45.2%	ND	8	0		
MW-244	PMW	CT	0.94	-5	68.3%	ND	8	0		
MW-245	PMW	CT	0.31	-5	68.3%	ND	8	0		
MW-246	PMW	CT	1.50	-5	68.3%	ND	8	0		
MW-247	PMW	CT	1.71	-18	98.4%	D	8	3	5.85	0.378
MW-248	PMW	CT	0.00	0	45.2%	ND	8	0		
MW-249	PMW	CT	1.22	23	99.9%	I	8	5	3.47	0.437
MW-250	PMW-Sentinel	CT	0.00	0	43.7%	ND	7	0		
MW-251	PMW-Sentinel	CT	0.00	0	43.7%	ND	7	0		

Notes:

D: Decreasing

I: Increasing

N/A: Insufficient Data

ND: Not Detected

NT: No Trend

PD: Probably Decreasing

PI: Probably Increasing

S: Stable

TABLE 22
MANN-KENDALL TREND ANALYSIS - CF
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-04	Background	CF	0.33	-4	75.8%	S	5	5	0.43	0.16
MW-05	Performance	CF	0.00	0	0.0%	N/A	2	2	0.428	0.227
MW-06	Performance	CF	1.31	-30	97.8%	D	12	12	84.7	4.88
MW-13	Background	CF	0.47	-8	80.1%	S	8	8	0.522	0.127
MW-14	Background	CF	0.00	0	42.3%	ND	6	0		
MW-15	Performance	CF	1.64	-45	100.0%	D	11	11	1530	0.524
MW-31	Performance	CF	0.83	-1	50.0%	S	15	9	0.802	0.131
MW-32	Performance	CF	1.12	-22	82.5%	NT	16	15	176	0.2
MW-33	Performance	CF	0.97	9	68.4%	NT	13	2	0.517	0.184
MW-37	Sentinel	CF	3.02	-13	76.4%	NT	13	1	6.01	6.01
MW-44	Performance	CF	0.64	-34	94.9%	PD	15	11	0.91	0.17
MW-51	Background	CF	0.87	4	70.3%	NT	6	3	0.449	0.186
MW-54	PMW	CF	1.17	-24	71.4%	NT	24	20	9.78	0.286
MW-57	Performance	CF	1.25	54	98.6%	I	17	17	73	3.25
MW-58	Performance	CF	1.51	-4	75.8%	NT	5	4	8.89	0.149
MW-65	Background	CF	0.00	0	0.0%	N/A	3	0		
MW-69	Performance	CF	0.38	-3	54.3%	S	14	8	0.261	0.136
MW-70	PMW	CF	2.56	-44	90.2%	PD	21	6	11.6	0.174
MW-71	Performance	CF	1.32	-47	99.0%	D	15	15	303	1.47
MW-74	Performance	CF	1.12	8	66.2%	NT	13	8	1.37	0.163
MW-75	Performance	CF	0.89	4	70.3%	NT	6	3	0.383	0.129
MW-76	PMW	CF	1.01	-96	99.9%	D	20	14	0.978	0.134
MW-77	PMW	CF	1.30	-9	59.5%	NT	21	15	5.05	0.13
MW-78	Performance	CF	0.00	0	43.7%	ND	7	0		
MW-79	PMW	CF	1.35	17	68.4%	NT	21	10	1.31	0.127
MW-87	Performance	CF	0.79	-4	64.0%	S	8	8	6.25	0.148
MW-91	Performance	CF	1.19	-5	76.5%	NT	6	6	25.6	0.538
MW-128	Background	CF	0.51	-2	55.7%	ND	7	0		
MW-132	Performance	CF	1.11	1	50.0%	NT	13	5	0.732	0.13
MW-144	Performance	CF	0.78	-39	94.1%	PD	17	12	4.3	0.28
MW-145	Performance	CF	1.15	3	53.6%	NT	16	1	0.585	0.585
MW-147	Performance	CF	1.04	-99	100.0%	D	18	14	13.4	0.147
MW-148	PMW	CF	0.99	-108	100.0%	D	21	17	3.07	0.137
MW-149	PMW	CF	0.60	-84	99.7%	D	20	20	200	12.9
MW-150	PMW	CF	0.99	-58	94.6%	PD	22	16	5	0.16
MW-151	PMW	CF	0.73	14	65.1%	NT	21	21	16.9	0.15
MW-152	PMW	CF	0.95	-19	68.1%	S	23	14	2.59	0.446
MW-153	Performance	CF	0.53	-21	91.3%	ND	12	0		
MW-155	PMW	CF	1.05	-37	86.0%	NT	21	9	2.1	0.256
MW-157	PMW	CF	1.85	-97	99.9%	D	21	21	235	3.46
MW-158	PMW	CF	0.79	-92	99.8%	D	21	15	1.07	0.156
MW-158A	PMW	CF	1.04	-69	98.0%	D	21	14	3.94	0.155
MW-159	PMW	CF	1.67	-78	99.1%	D	21	15	12.1	0.285
MW-160	PMW	CF	0.89	-97	99.9%	D	20	13	3.53	0.56
MW-161	PMW	CF	1.18	-72	99.5%	D	19	11	3.65	0.129
MW-162	PMW	CF	1.23	-50	95.7%	D	19	11	3.36	0.135
MW-163	PMW	CF	1.82	-58	97.7%	D	19	15	11.9	0.142
MW-164	PMW	CF	1.12	-1	50.0%	NT	18	18	247	8.44
MW-165	PMW	CF	1.27	-109	100.0%	D	19	18	140	0.245
MW-165A	PMW	CF	1.31	-88	99.9%	D	19	18	82.7	0.15
MW-166	PMW	CF	0.77	17	69.6%	NT	20	20	140	1.03

TABLE 22
MANN-KENDALL TREND ANALYSIS - CF
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Well	Classification	COC	Coefficient of Variation	MK (S)	Confidence Factor (CF)	Concentration Trend	Number of Sample Rounds	Detects	Max	Min
MW-166A	PMW	CF	0.53	-25	79.7%	S	19	19	65.5	7.54
MW-169	Sentinel	CF	1.40	-35	99.2%	D	12	1	0.8	0.8
MW-170	Sentinel	CF	0.89	-35	99.2%	D	12	1	0.42	0.42
MW-171	Sentinel	CF	1.02	-35	99.2%	ND	12	0		
MW-172	Background	CF	2.13	-23	97.7%	D	10	6	13	0.139
MW-174	Performance	CF	1.55	-40	99.7%	D	12	12	68	0.154
MW-176	Performance	CF	0.37	-5	76.5%	S	6	5	0.246	0.147
MW-178	Background	CF	1.13	26	98.9%	I	10	8	1.43	0.125
MW-179	Performance	CF	0.51	15	89.2%	NT	10	5	0.175	0.125
MW-180	Performance	CF	1.72	-12	83.2%	NT	10	4	2.04	0.136
MW-182	Sentinel	CF	0.00	0	40.8%	ND	5	0		
MW-184	Performance	CF	1.36	0	40.8%	NT	5	5	117	2.94
MW-185	Sentinel	CF	0.00	0	40.8%	ND	5	0		
MW-186	Sentinel	CF	0.00	0	40.8%	ND	5	0		
MW-187	Background	CF	0.53	10	78.4%	NT	10	7	0.29	0.13
MW-190	Performance	CF	1.18	-9	93.2%	PD	6	6	2.73	0.135
MW-221	Performance	CF	1.71	-18	93.4%	PD	10	4	1.4	0.134
MW-222	Performance	CF	0.70	14	87.3%	NT	10	6	0.523	0.156
MW-223	Performance	CF	0.75	5	63.6%	NT	10	10	2	0.177
MW-224	Performance	CF	1.35	13	85.4%	NT	10	5	1.03	0.17
MW-225	Performance	CF	0.74	1	50.0%	NT	10	9	0.803	0.149
MW-226	Performance	CF	1.21	0	46.4%	NT	10	9	1.52	0.133
MW-227	Performance	CF	1.82	-31	99.8%	D	10	9	1100	0.322
MW-228	Performance	CF	2.93	-24	98.2%	D	10	7	120	0.155
MW-231	Sentinel	CF	0.00	0	40.8%	ND	5	0		
MW-232	PMW-Sentinel	CF	0.50	-10	75.3%	S	11	1	0.185	0.18
MW-234	Sentinel	CF	0.00	0	40.8%	ND	5	0		
MW-235	Sentinel	CF	0.00	0	40.8%	ND	5	0		
MW-237	Sentinel	CF	0.34	-4	75.8%	S	5	4	0.181	0.129
MW-239	Sentinel	CF	0.81	4	75.8%	NT	5	1	0.24	0.24
MW-240	Sentinel	CF	0.75	5	76.5%	NT	6	1	0.227	0.227
MW-241	PMW	CF	0.61	2	54.8%	NT	8	3	0.227	0.132
MW-242	PMW	CF	0.85	-14	94.6%	PD	8	7	0.897	0.165
MW-243	PMW	CF	0.87	-13	92.9%	PD	8	2	0.315	0.233
MW-244	PMW	CF	1.57	-13	92.9%	PD	8	2	1.55	1.26
MW-245	PMW	CF	1.06	-13	92.9%	PD	8	2	0.438	0.338
MW-246	PMW	CF	1.37	-13	92.9%	PD	8	1	0.829	0.829
MW-247	PMW	CF	1.85	-12	91.1%	PD	8	8	193	0.229
MW-248	PMW	CF	0.00	0	45.2%	ND	8	0		
MW-249	PMW	CF	2.08	23	99.9%	I	8	6	19.9	0.399
MW-250	PMW-Sentinel	CF	0.00	0	43.7%	ND	7	0		
MW-251	PMW-Sentinel	CF	0.16	1	50.0%	NT	7	7	0.322	0.197

Notes:

D: Decreasing

I: Increasing

N/A: Insufficient Data

ND: Not Detected

NT: No Trend

PD: Probably Decreasing

PI: Probably Increasing

S: Stable

TABLE 23
WELLS TO BE ABANDONED
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Rationale
MW-05	Fluvial	Performance	Well is redundant. Sampling at MW-05 was restarted in 2009 and CVOC concentrations are below RLs. Well is near MW-69.
MW-10	Fluvial	Performance	Well is redundant. It does not fully screen the fluvial aquifer and is near MW-03 and MW-220.
MW-14	Fluvial	Background	Well is not located upgradient of TA-4 on Dunn Field; MW-187 provides background data for area.
MW-37	Intermediate	Sentinel	Well was installed to monitor vertical migration of CVOCs in IAQ. No detections above RL since installation in 1993. (Oct07 results believed to be mis-labeled sample.) Low CVOC concentrations in overlying fluvial aquifer.
MW-42	Fluvial	Background	Four wells are located on the west side of the trough in groundwater contours;all have been sampled with no CVOCs reported above RLs. MW-42 and MW-127 will be abandoned; MW-80 and MW-126 will be maintained.
MW-43	Intermediate	Sentinel	Well was installed to monitor vertical migration of CVOCs in IAQ. Only one sample (Feb01) had CVOCs above RL. Well is distant from plume and CVOC concentrations in fluvial aquifer are decreasing.
MW-45	Fluvial	Background	Well is located too far east of Dunn Field for reliable background data; well has not been sampled since 1998.
MW-51	Fluvial	Background	Well is located north of Dunn Field and not directly upgradient; MW-129 and MW-130 will provide background data for north end of Dunn Field.
MW-65	Fluvial	Background	Well is located north of Dunn Field and not directly upgradient; MW-129 and MW-130 will provide background data for north end of Dunn Field.
MW-74	Fluvial	Performance	Well is redundant. It is near MW-70 and MW-134 and concentrations are similar
MW-75	Fluvial	Performance	Well is not necessary. CVOC concentrations are below RLs and have been at low levels since installation in 2001.
MW-127	Fluvial	Background	Four wells are located on the west side of the trough in groundwater contours;all have been sampled with no CVOCs reported above RLs. MW-42 and MW-127 will be abandoned; MW-80 and MW-126 will be maintained.
MW-128	Fluvial	Background	Well is located north of Dunn Field and not directly upgradient; MW-129 and MW-130 provide background data for north end of Dunn Field.
MW-132	Fluvial	Performance	Well is redundant. It is near MW-134 and MW-222; CVOC concentrations are similar
MW-161	Fluvial	Performance	Well is redundant. It is near MW-190 and CVOC concentrations are similar.
MW-162	Fluvial	Performance	Well is redundant. No CVOCs above MCLs since 2010. Well is near MW-76.
MW-172	Fluvial	Background	Well is located too close to TA-4 for background location; MW-187 provides background data for area.
MW-175	Fluvial	Performance	Well was damaged during thermal SVE treatment and is not usable.
MW-178	Fluvial	Background	Well is located too close to TA-2 for background location; MW-13 provides background data for area.
MW-179	Fluvial	Performance	Well is not necessary. Concentrations are below RLs and have been below MCLs since installation in 2005.
MW-185	Fluvial	Sentinel	Well was installed for RD investigation. Only initial sample in Nov05 had CVOCs above RL. Well is distant from plume and has upgradient sentinel wells (MW-169 and MW-171).
MW-186	Fluvial	Sentinel	Well was installed for RD investigation. Well has had low detections of TCE but upgradient sentinel wells were non-detect.

TABLE 23
WELLS TO BE ABANDONED
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Rationale
MW-231	Intermediate	Sentinel	Well was installed for IAQ investigation. No CVOCs above RL since installation in 2008. Low concentrations in overlying fluvial aquifer.
MW-232	Intermediate	Sentinel	Well was installed for IAQ investigation. Initial two samples in Dec07 and Apr08 had CVOCs above MCLs; concentrations have since decreased below RL. Well had very low yield in pump test. Adjacent IAQ wells (MW-237 and MW-251) with consistent analytical results will be maintained.
MW-234	Intermediate	Sentinel	Well was installed for IAQ investigation. No detections above RL since installation in 2008. Low concentration in overlying fluvial aquifer.
MW-239	Intermediate	Sentinel	Well was installed for IAQ investigation. DCE detected above RL in Apr11 sample. Adjacent IAQ well (MW-237) with slightly higher CVOC concentrations will be maintained.
MW-240	Intermediate	Sentinel	Well was installed for IAQ investigation. Well has had low detections of TCE and cDCE but upgradient sentinel wells were non-detect.

Notes:

CVOC: chlorinated volatile organic compound	RD: Remedial Design
cDCE: cis-1,2-Dichloroethene	RL: Reporting Limit
DCE: 1,1-dichloroethene	SVE: Soil Vapor Extraction
IAQ: Intermediate Aquifer	TA: Target Area
MAQ: Memphis Aquifer	TCE: trichloroethene
MW: Monitoring Well	

TABLE 24
LTM WELLS - 2012
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Northing (ft)	Easting (ft)	Ground Elevation (ft, msl)	Stick Up (ft)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-03	Fluvial	Performance-FSVE	281596.25	802100.69	290.40	2.0	65.5	10	75.5
MW-04	Fluvial	Background	281278.87	802369.19	300.00	1.6	60.0	20	80.0
MW-06	Fluvial	Performance-FSVE	280604.17	802069.13	288.10	1.0	51.0	20	71.0
MW-07	Fluvial	Background-NE	281839.88	802481.70	293.10	2.0	67.0	10	77.0
MW-08	Fluvial	Background-NE	282001.04	802727.91	292.74	-0.2	56.5	10	66.5
MW-13	Fluvial	Background	281033.56	802369.21	300.10	-0.1	66.0	15	81.0
MW-15	Fluvial	Performance	280348.88	801985.36	295.23	-0.1	63.4	15	78.4
MW-28	Fluvial	Background	281568.58	803154.48	294.89	-0.1	54.3	15	69.3
MW-31	Fluvial	Performance	281651.53	801783.90	287.50	2.9	64.1	15	79.1
MW-32	Fluvial	Performance	280834.37	801615.51	285.60	-0.2	52.7	15	67.7
MW-33	Fluvial	Performance	280398.10	801561.30	277.70	3.0	44.6	15	59.6
MW-44	Fluvial	Performance	281073.71	800601.09	269.40	-0.3	64.0	10	74.0
MW-54	Fluvial	Performance	281160.10	801183.32	295.60	-0.25	84.5	10	94.5
MW-57	Fluvial	Performance	280184.05	802006.19	291.10	-0.3	60.0	10	70.0
MW-58	Fluvial	Performance	279845.07	802066.44	290.70	-0.2	57.0	10	67.0
MW-67	Memphis	Sentinel	280473.05	800933.94	275.53	2.7	260.0	15	275.0
MW-68	Fluvial	Performance	281500.76	802040.04	291.60	0.1	72.5	10	82.5
MW-69	Fluvial	Performance	281202.55	802011.49	304.90	2.1	82.1	10	92.1
MW-70	Fluvial	Performance	281029.60	801988.49	302.80	2.19	80.8	10	90.8
MW-71	Fluvial	Performance	280584.68	801804.71	291.90	2.5	65.5	10	75.5
MW-76	Fluvial	Performance	281311.98	801642.76	303.30	-0.59	73.0	20	93.0
MW-77	Fluvial	Performance	281142.96	801815.29	304.70	-0.28	68.0	20	88.0
MW-78	Fluvial	Performance	282051.71	802065.28	275.40	-0.4	44.5	20	64.5
MW-79	Fluvial	Performance	281794.22	800899.03	285.40	-0.37	82.5	20	102.5
MW-80	Fluvial	Background	281417.56	800199.07	274.00	-0.2	53.0	20	73.0
MW-87	Fluvial	Performance-FSVE	280696.36	802038.55	292.80	2.1	63.0	15	78.0
MW-91	Fluvial	Performance	280474.97	802014.43	289.30	2.7	55.0	15	70.0
MW-126	Fluvial	Background	282390.01	800491.67	252.49	-0.3	16.0	10	26.0
MW-129	Fluvial	Background-NE	282271.08	803128.53	293.33	-0.3	65.0	15	80.0
MW-130	Fluvial	Background-NE	282116.23	803242.02	293.69	-0.5	59.5	20	79.5
MW-134	Fluvial	Performance-FSVE	281012.74	802102.58	301.05	-0.2	75.0	15	90.0
MW-144	Fluvial	Performance	281138.63	801528.84	291.89	-0.3	56.8	20	76.8
MW-145	Fluvial	Performance	280967.63	800823.18	284.86	-0.1	80.1	20	100.1
MW-147	Fluvial	Performance	281501.06	801674.04	289.97	-0.2	60.2	20	80.2
MW-148	Fluvial	Performance	281377.94	801461.63	294.87	-0.157	70.0	20	90.0
MW-149	Fluvial	Performance	281130.04	800982.76	287.44	-0.267	81.4	20	101.4
MW-150	Fluvial	Performance	281238.66	801283.61	297.15	-0.332	71.2	20	91.2
MW-151	Fluvial	Performance	281290.42	800874.85	284.42	-0.15	77.0	20	97.0
MW-152	Fluvial	Performance	281515.56	800892.84	289.82	-0.23	91.0	20	111.0
MW-153	Fluvial	Performance	282119.38	800952.34	279.26	-0.1	76.1	20	96.1
MW-154	Fluvial	Background	280501.53	800919.48	274.07	-0.3	53.3	10	63.3
MW-155	Fluvial	Performance	281325.31	801168.93	291.84	-0.19	77.0	20	97.0
MW-157	Fluvial	Performance	281050.91	801348.32	286.83	-0.05	57.0	20	77.0
MW-158	Fluvial	Performance	281434.42	801005.34	294.38	-0.31	91.0	15	106.0
MW-158A	Fluvial	Performance	281443.51	801005.67	294.22	-0.27	77.9	15	92.9
MW-159	Fluvial	Performance	281304.29	801006.52	286.58	-0.25	80.4	20	100.4
MW-160	Fluvial	Performance	281366.52	801304.26	294.11	-0.11	65.9	20	85.9
MW-163	Fluvial	Performance	281152.59	801487.27	290.81	-0.18	56.2	20	76.2
MW-164	Fluvial	Performance	280997.55	801497.47	287.71	-0.23	55.6	20	75.6
MW-165	Fluvial	Performance	281384.63	800855.49	287.35	-0.29	88.6	15	103.6
MW-165A	Fluvial	Performance	281383.55	800865.69	287.53	-0.27	71.3	15	86.3
MW-166	Fluvial	Performance	281224.99	800928.09	280.96	2.48	83.9	15	98.9
MW-166A	Fluvial	Performance	281213.35	800927.36	280.92	2.53	68.3	15	83.3

TABLE 24
LTM WELLS - 2012
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well	Aquifer	Well Classification	Northing (ft)	Easting (ft)	Ground Elevation (ft, msl)	Stick Up (ft)	Riser Length (ft)	Screen Length (ft)	Total Well Depth (ft, btoc)
MW-167	Fluvial	Background	281394.03	800618.54	285.21	-0.4	70.5	15	85.5
MW-169	Transition	Sentinel	282491.23	800956.58	262.17	-0.3	68.1	20	88.1
MW-170	Fluvial	Sentinel	282443.17	801260.46	273.98	-0.2	59.8	20	79.8
MW-171	Fluvial	Sentinel	282315.35	801057.83	271.02	-0.3	53.3	15	68.3
MW-174	Fluvial	Performance-FSVE	280352.00	802092.07	296.83	-0.3	67.0	10	77.0
MW-176	Fluvial	Performance	280823.77	802032.08	299.92	-0.2	76.0	10	86.0
MW-180	Fluvial	Performance	281476.43	802131.85	296.39	-0.3	72.0	10	82.0
MW-182	Fluvial	Sentinel	280524.22	800623.13	272.98	2.4	62.0	10	72.0
MW-184	Fluvial	Performance	280903.16	801442.29	283.34	-0.2	58.0	10	68.0
MW-187	Fluvial	Background	280563.18	802348.09	303.21	-0.5	76.0	10	86.0
MW-190	Fluvial	Performance	281138.88	801595.73	297.58	-0.3	78.0	10	88.0
MW-220	Fluvial	Performance-FSVE	281617.49	802166.87	290.31	3.0	64.9	15	79.9
MW-221	Fluvial	Performance-FSVE	281399.71	802100.05	298.37	3.2	73.1	15	88.1
MW-222	Fluvial	Performance-FSVE	280986.04	802145.54	301.06	2.8	74.2	15	89.2
MW-223	Fluvial	Performance-FSVE	280913.53	802104.29	300.41	2.6	73.9	15	88.9
MW-224	Fluvial	Performance-FSVE	281017.74	802181.62	301.18	3.0	73.7	15	88.7
MW-225	Fluvial	Performance-FSVE	280947.12	802070.50	301.30	3.2	75.0	15	90.0
MW-226	Fluvial	Performance-FSVE	280931.94	802147.21	300.56	2.6	74.2	15	89.2
MW-227	Fluvial	Performance-FSVE	280257.91	802081.00	296.64	3.1	63.6	15	78.6
MW-228	Fluvial	Performance-FSVE	280251.88	802157.40	298.59	3.1	64.1	15	79.1
MW-230	Fluvial	Background-NE	281842.54	802800.22	286.92	-0.4	59.3	15	74.3
MW-235	Fluvial	Sentinel	280727.57	800447.83	264.21	-0.2	50.6	10	60.8
MW-237	Intermediate	Sentinel	281356.02	800963.99	289.53	-0.4	166.5	10	176.7
MW-241	Fluvial	Performance	281389.92	801396.74	293.00	-0.18	73.3	15	88.3
MW-242	Fluvial	Performance	281297.31	801228.65	295.94	-0.54	73.2	16	88.7
MW-243	Fluvial	Performance	281370.62	801116.45	292.53	-0.27	80.7	20	100.7
MW-244	Fluvial	Performance	281333.49	801101.07	289.45	-0.73	76.3	20	96.3
MW-245	Fluvial	Performance	281379.56	801035.07	290.55	-0.42	84.7	20	104.7
MW-246	Fluvial	Performance	281387.26	800951.62	288.49	-0.32	85.2	20	105.2
MW-247	Fluvial	Performance	281319.67	800900.12	286.16	-0.46	80.0	20	100.0
MW-248	Fluvial	Performance	281253.66	800720.22	275.93	-0.48	67.5	20	87.5
MW-249	Fluvial	Performance	281029.63	800789.83	285.89	-0.36	78.0	20	98.0
MW-250	Intermediate	Sentinel	281045.53	800900.38	290.19	-0.53	168.7	15	183.7
MW-251	Intermediate	Sentinel	281211.70	801021.75	286.16	-0.33	160.2	15	175.2

Notes:

ft: feet
ft, btoc: feet below top of casing
ft, msl: feet mean sea level

TABLE 25
LTM SCHEDULE - 2012
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Well Classification	Sample Frequency	Annual Mar 2012	Semiannual Sep 2012
MW-03	Fluvial	Performance-FSVE	Semiannual	P	P
MW-04	Fluvial	Background	Annual	P	-
MW-06	Fluvial	Performance-FSVE	Semiannual	P	P
MW-07	Fluvial	Background-NE	Annual	P	-
MW-08	Fluvial	Background-NE	Annual	P	-
MW-13	Fluvial	Background	Biennial	-	-
MW-15	Fluvial	Performance	Semiannual	P	P
MW-28	Fluvial	Background	Semiannual	P	P
MW-31	Fluvial	Performance	Semiannual	P	P
MW-32	Fluvial	Performance	Semiannual	P	P
MW-33	Fluvial	Performance	Biennial	-	-
MW-44	Fluvial	Performance	Annual	P	-
MW-54	Fluvial	Performance	Semiannual	P	P
MW-57	Fluvial	Performance	Semiannual	P	P
MW-58	Fluvial	Performance	Biennial	-	-
MW-67	Memphis	Background	Biennial	-	-
MW-68	Fluvial	Performance	Annual	P	-
MW-69	Fluvial	Performance	Annual	P	-
MW-70	Fluvial	Performance	Annual	P	-
MW-71	Fluvial	Performance	Annual	P	-
MW-76	Fluvial	Performance	Annual	P	-
MW-77	Fluvial	Performance	Semiannual	P	P
MW-78	Fluvial	Performance	Biennial	-	-
MW-79	Fluvial	Performance	Semiannual	P	P
MW-80	Fluvial	Background	Annual	P	-
MW-87	Fluvial	Performance-FSVE	Semiannual	P	P
MW-91	Fluvial	Performance	Annual	P	-
MW-126	Fluvial	Background	Annual	P	-
MW-129	Fluvial	Background-NE	Annual	P	-
MW-130	Fluvial	Background-NE	Annual	P	-
MW-134	Fluvial	Performance-FSVE	Semiannual	P	P
MW-144	Fluvial	Performance	Semiannual	P	P
MW-145	Fluvial	Performance	Annual	P	-
MW-147	Fluvial	Performance	Annual	P	-
MW-148	Fluvial	Performance	Annual	P	-
MW-149	Fluvial	Performance	Semiannual	P	P
MW-150	Fluvial	Performance	Semiannual	P	P
MW-151	Fluvial	Performance	Semiannual	P	P
MW-152	Fluvial	Performance	Annual	P	-
MW-153	Fluvial	Performance	Biennial	-	-
MW-154	Fluvial	Background	Biennial	-	-
MW-155	Fluvial	Performance	Annual	P	-
MW-157	Fluvial	Performance	Semiannual	P	P
MW-158	Fluvial	Performance	Annual	P	-
MW-158A	Fluvial	Performance	Annual	P	-
MW-159	Fluvial	Performance	Semiannual	P	P
MW-160	Fluvial	Performance	Annual	P	-
MW-163	Fluvial	Performance	Semiannual	P	P
MW-164	Fluvial	Performance	Semiannual	P	P
MW-165	Fluvial	Performance	Semiannual	P	P
MW-165A	Fluvial	Performance	Semiannual	P	P
MW-166	Fluvial	Performance	Semiannual	P	P
MW-166A	Fluvial	Performance	Semiannual	P	P
MW-167	Fluvial	Background	Biennial	-	-
MW-169	Transition	Sentinel	Biennial	-	-
MW-170	Fluvial	Sentinel	Biennial	-	-

TABLE 25
LTM SCHEDULE - 2012
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

Well ID	Aquifer	Well Classification	Sample Frequency	Annual Mar 2012	Semiannual Sep 2012
MW-171	Fluvial	Sentinel	Biennial	-	-
MW-174	Fluvial	Performance-FSVE	Semiannual	P	P
MW-176	Fluvial	Performance	Annual	P	-
MW-180	Fluvial	Performance	Annual	P	-
MW-182	Fluvial	Sentinel	Annual	P	-
MW-184	Fluvial	Performance	Annual	P	-
MW-187	Fluvial	Background	Biennial	-	-
MW-190	Fluvial	Performance	Semiannual	P	P
MW-220	Fluvial	Performance-FSVE	Semiannual	P	P
MW-221	Fluvial	Performance-FSVE	Semiannual	P	P
MW-222	Fluvial	Performance-FSVE	Semiannual	P	P
MW-223	Fluvial	Performance-FSVE	Semiannual	P	P
MW-224	Fluvial	Performance-FSVE	Semiannual	P	P
MW-225	Fluvial	Performance-FSVE	Semiannual	P	P
MW-226	Fluvial	Performance-FSVE	Semiannual	P	P
MW-227	Fluvial	Performance-FSVE	Semiannual	P	P
MW-228	Fluvial	Performance-FSVE	Semiannual	P	P
MW-230	Fluvial	Background-NE	Annual	P	-
MW-235	Fluvial	Sentinel	Annual	P	-
MW-237	Intermediate	Sentinel	Annual	P	-
MW-241	Fluvial	Performance	Annual	P	-
MW-242	Fluvial	Performance	Semiannual	P	P
MW-243	Fluvial	Performance	Semiannual	P	P
MW-244	Fluvial	Performance	Semiannual	P	P
MW-245	Fluvial	Performance	Semiannual	P	P
MW-246	Fluvial	Performance	Semiannual	P	P
MW-247	Fluvial	Performance	Semiannual	P	P
MW-248	Fluvial	Performance	Annual	P	-
MW-249	Fluvial	Performance	Semiannual	P	P
MW-250	Intermediate	Sentinel	Annual	P	-
MW-251	Intermediate	Sentinel	Annual	P	-

Notes:

- P: Sample planned
- LF: Sample collected using low-flow purging methods.
- S: PDB sample collected at mid-point of saturated screened interval.
- : Sample not planned or collected

FIGURES

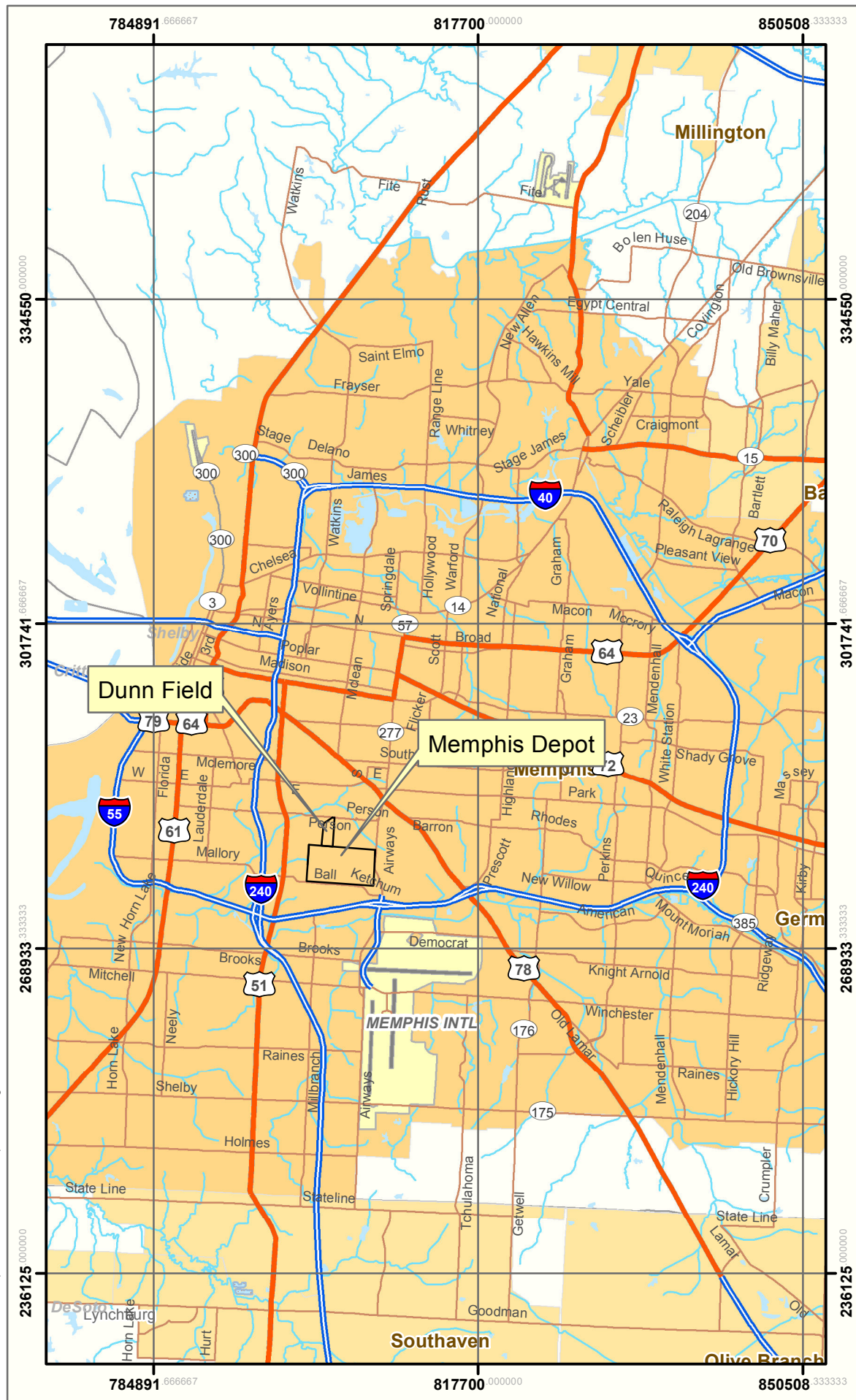


Figure 1

SITE LOCATION MAP

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Projection: NAD 1927 StatePlane Tennessee
Units: Feet

0 0.6 1.2 1.8 2.4 3 Miles



Date: January 2012
Edition: Rev 0



Path: G:\121842\Off Depot GW 2011 Annual Report\GIS\Fig 3 -OD SVE SYSTEM LAYOUT.mxd

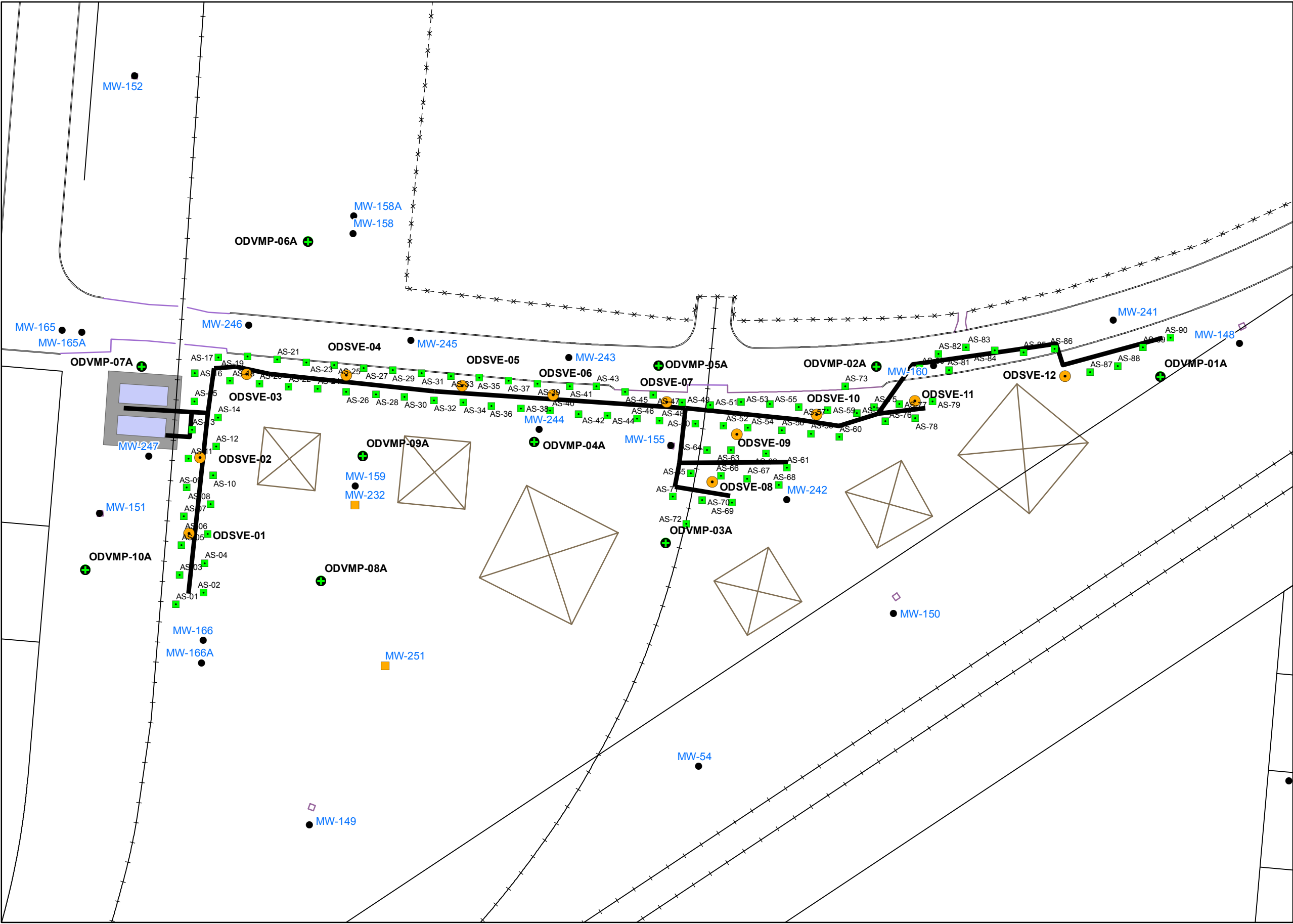


Figure 3

AS-SVE SYSTEM

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Monitoring Well Screened in the Fluvial Aquifer
- Monitoring Well Screened in the Intermediate Aquifer
- AS Well Location
- VMP Location
- SVE Location
- Conveyance Lines
- SVE Compound

0 25 50 75 100

Feet

Installation Location
Memphis, Tennessee

Date: January 2012
Edition: Rev 0

HDR

Path: G:\121842\Off Depot GW 2011 Annual Report\GIS\Fig 4 _Performance Well Loc Map.mxd

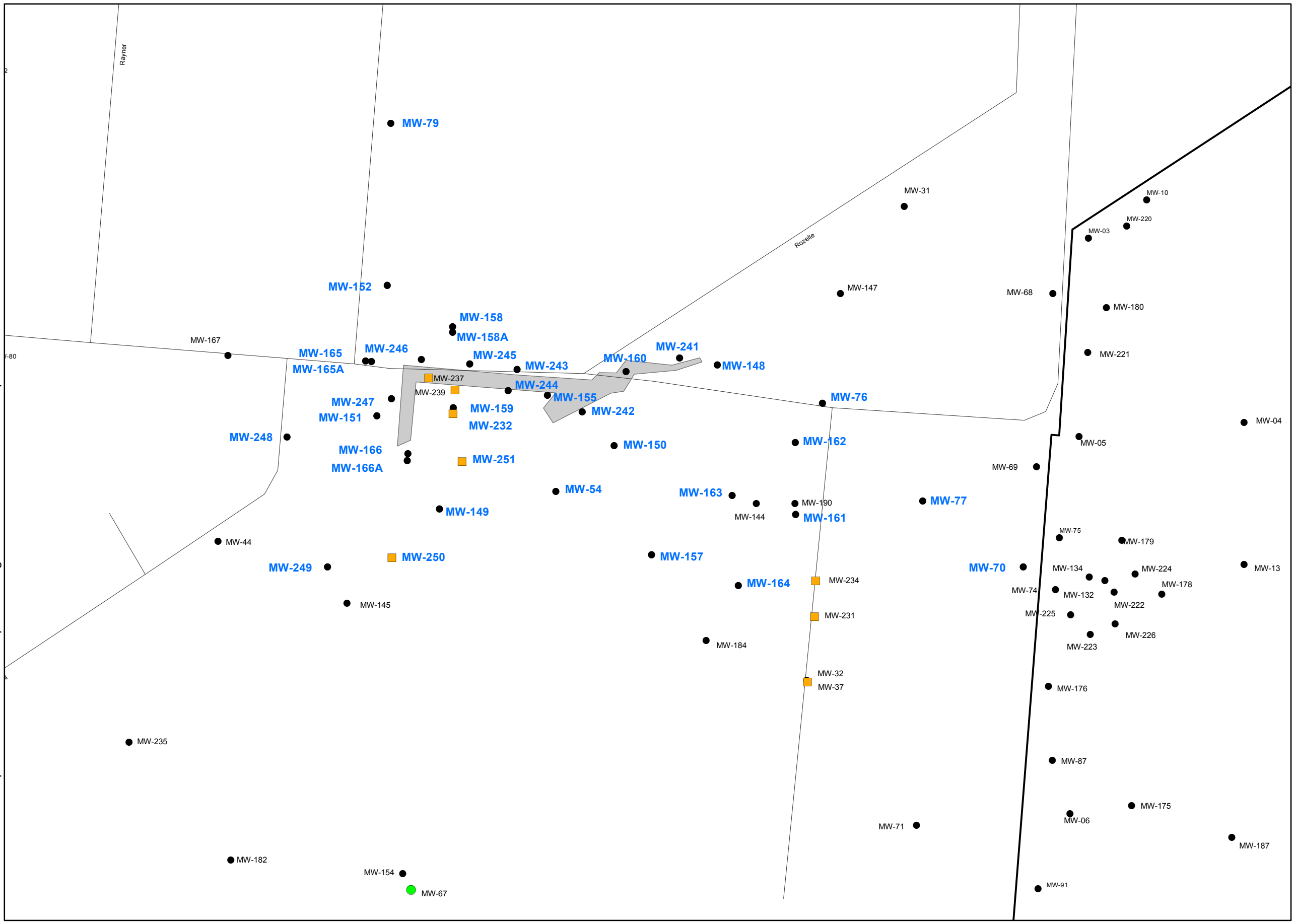


Figure 4

PERFORMANCE MONITORING WELL LOCATION MAP

OFF DEPOT
ANNUAL GROUNDWATER MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

- Monitoring 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

● MW-241 Performance Monitoring Well

— Dunn Field Boundary

■ Air Sparge Well Area

0 50 100 150 200

Feet

Installation Location
Memphis, Tennessee

MEMPHIS INT.

Date: January 2012
Edition: Rev 0

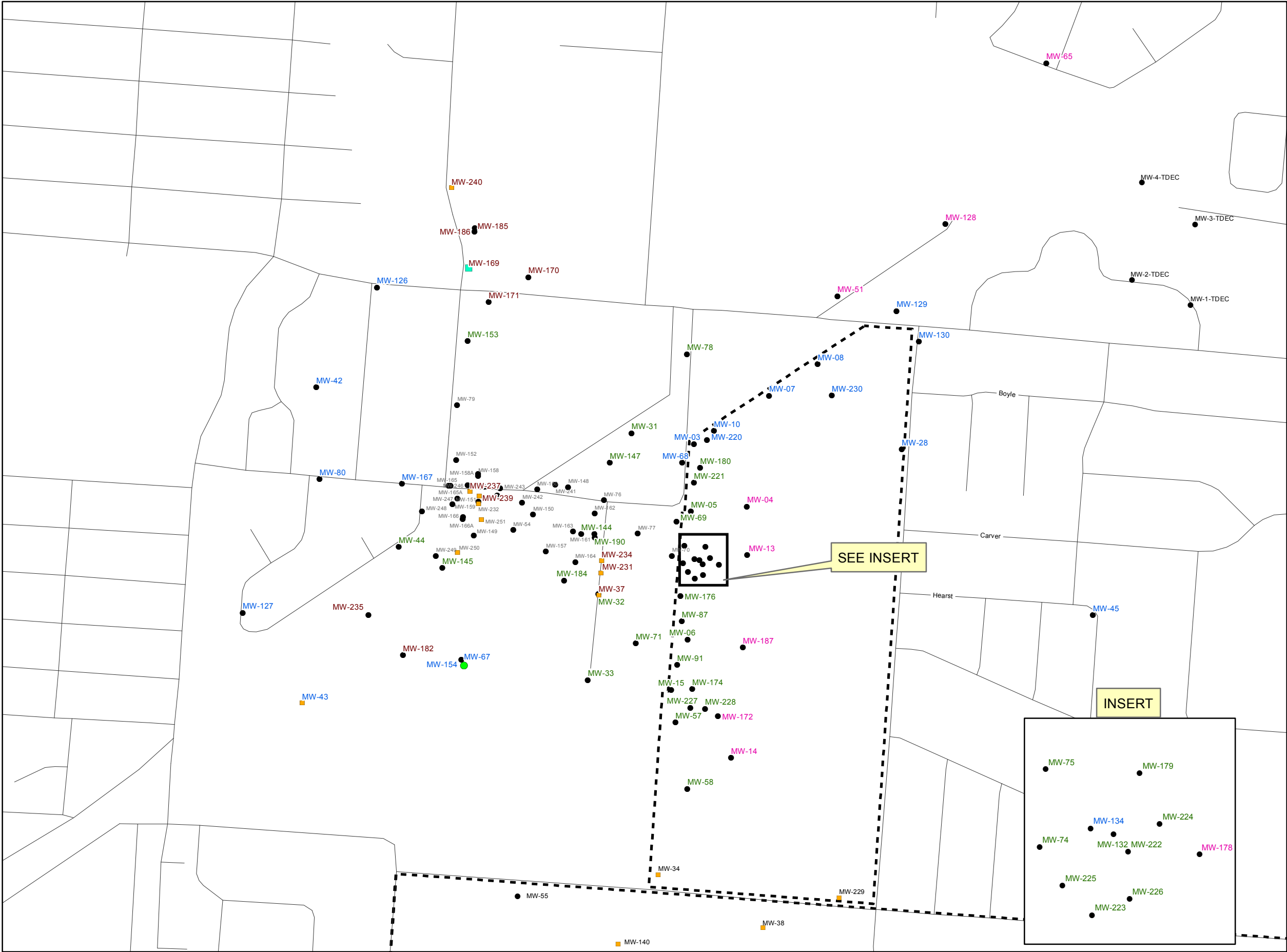


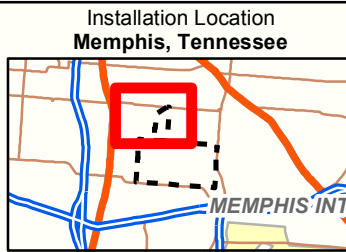
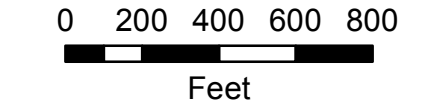
Figure 5
LTM WELL LOCATION MAP

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

- Legend**
- Monitoring 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

- Off Depot Well Classification**
- MW-04 Background
 - MW-05 Sentinel
 - MW-06 Performance
 - MW-03 Water Level Only
- Dunn Field Boundary



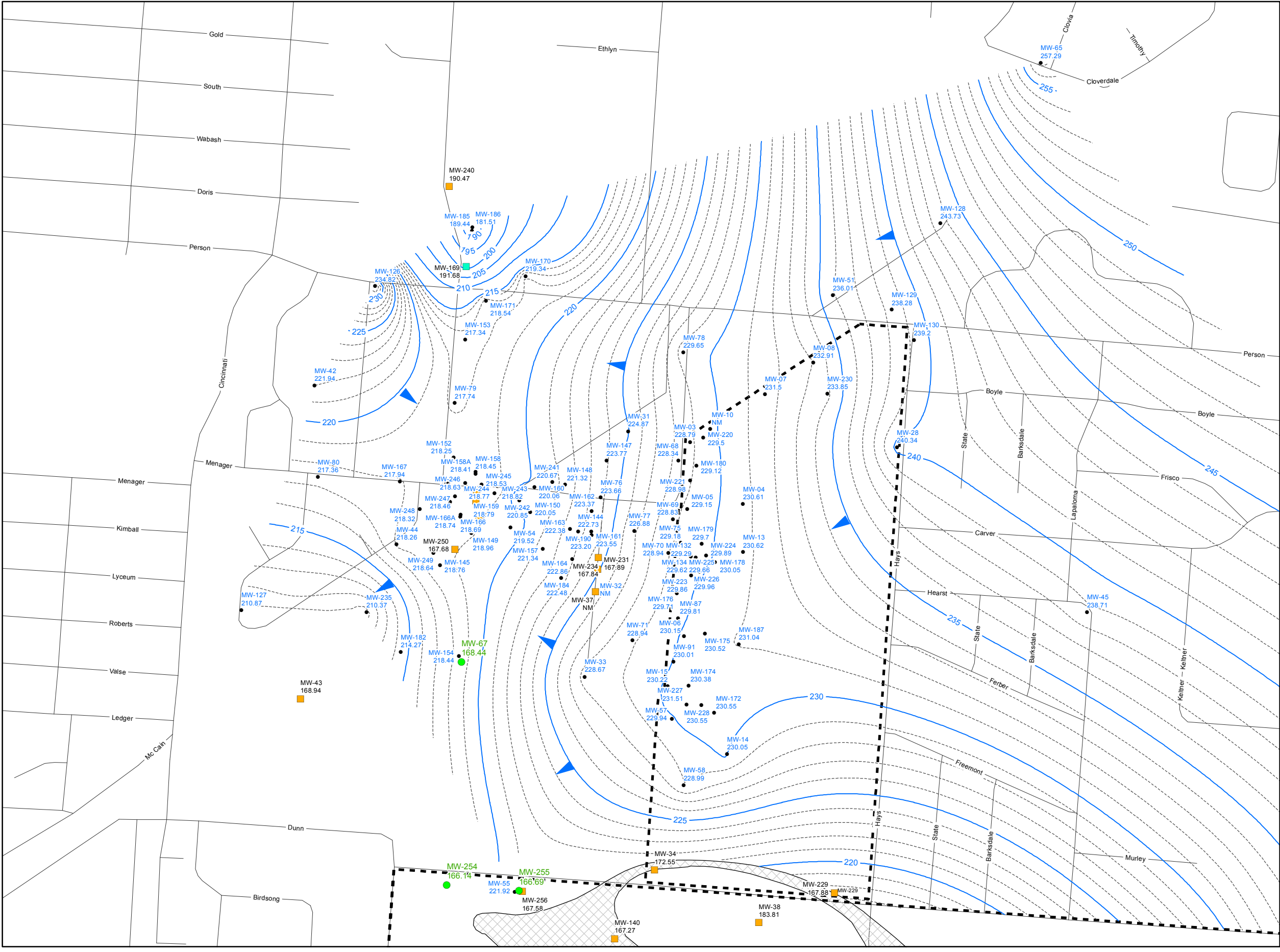


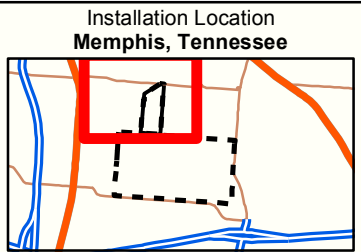
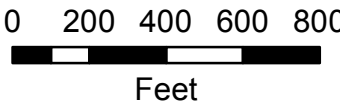
Figure 6

**GROUNDWATER
ELEVATION MAP,
FLUVIAL AQUIFER,
MARCH 2011**

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

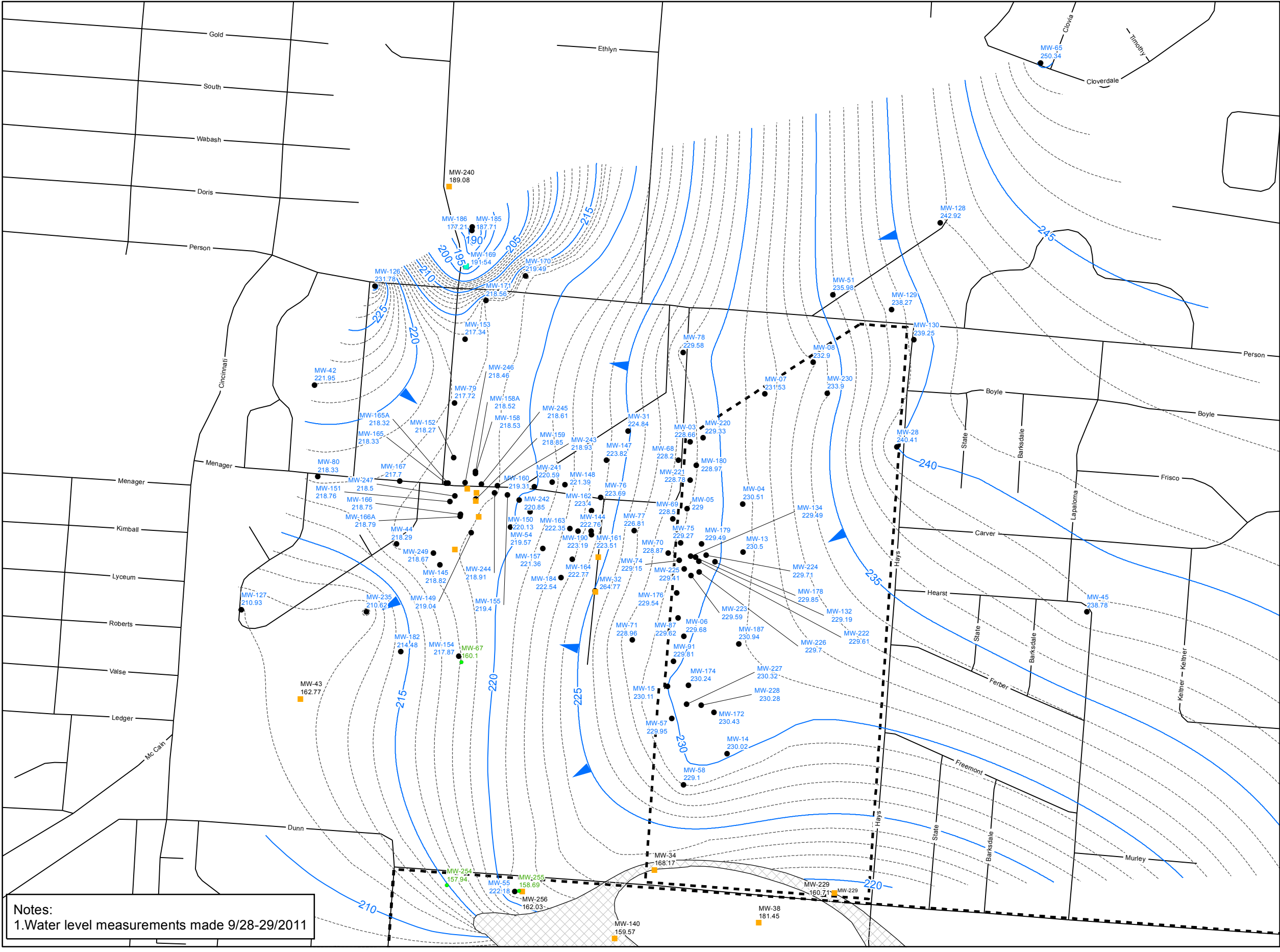
DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

- Legend**
- Monitoring 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
 - Clay Elevation Exceeds Groundwater Elevation
- MW-03 100.12 Blue non-italics: value used for groundwater contours
- NM Not Measured
- Groundwater Contours**
- 1-ft Contour
 - 5-ft Contour
 - Groundwater Flow Direction



Date: January 2012
Edition: Rev 0





Notes:
1. Water level measurements made 9/28-29/2011



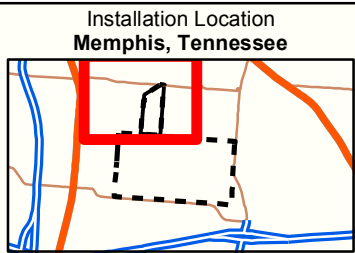
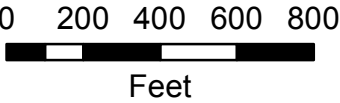
Figure 7

**GROUNDWATER
ELEVATION MAP,
FLUVIAL AQUIFER,
SEPTEMBER 2011**

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

- Legend**
- Monitoring 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
 - Clay Elevation Exceeds Groundwater Elevation
 - MW-03 100.12 Blue non-italics: value used for groundwater contours
 - NM Not Measured
- Groundwater Contours**
- 1-ft Contour
 - 5-ft Contour
 - Groundwater Flow Direction



Date: January 2011
Edition: Rev 0



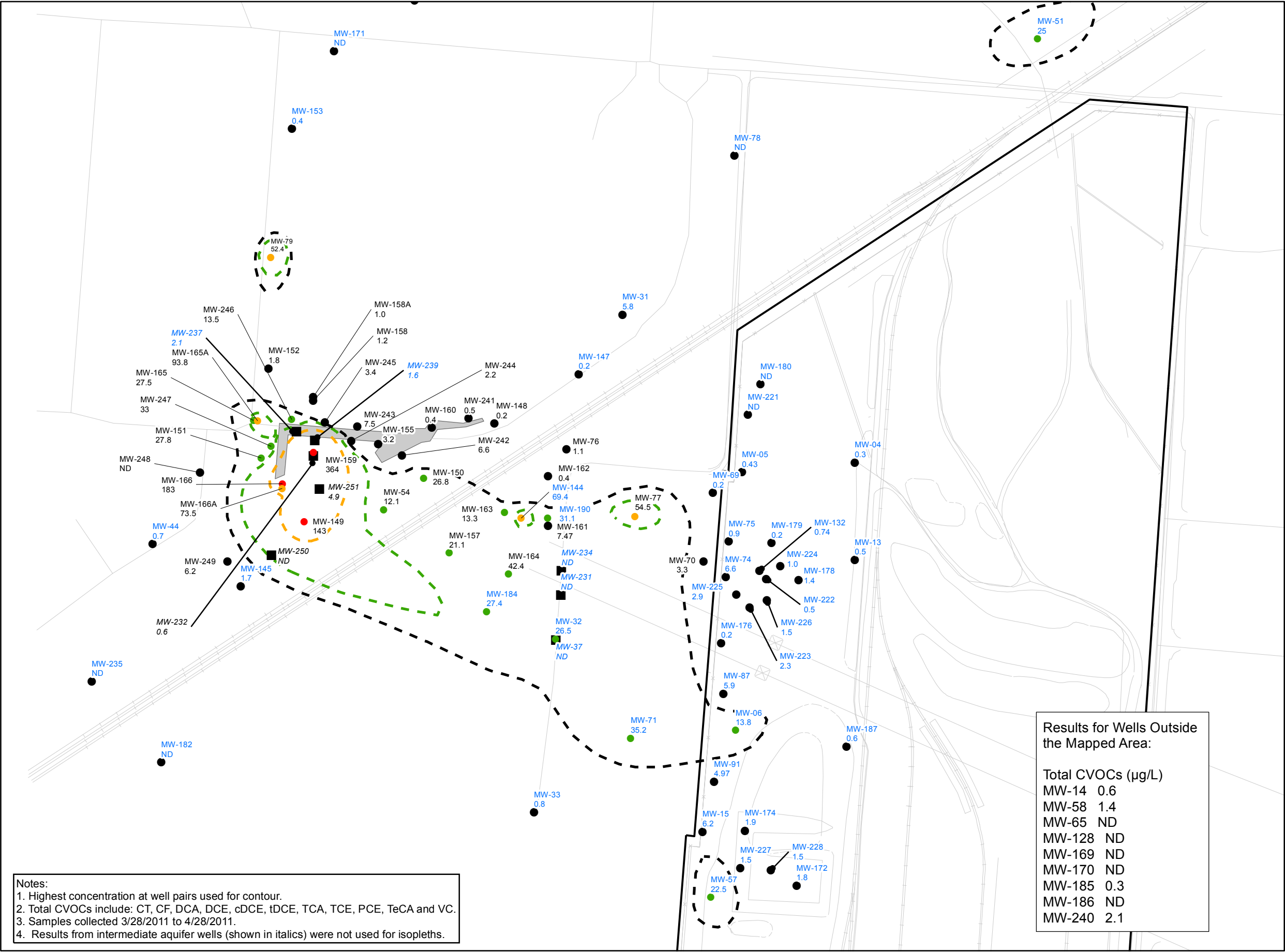


Figure 8

TOTAL CVOC CONCENTRATIONS, MARCH - APRIL 2011

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

Total CVOC Ranges (ug/L)

- 0 - 10
- 10 - 50
- 50 - 100
- 100 - 500

Total CVOC Isopleth (ug/L)

- 10
- 50
- 100

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

MW-05 100 Blue: Off Depot LTM Sample Event

MW-249 100 Black: Off Depot Performance Monitoring Sample Event (Non-Fluvial Wells - Italics)

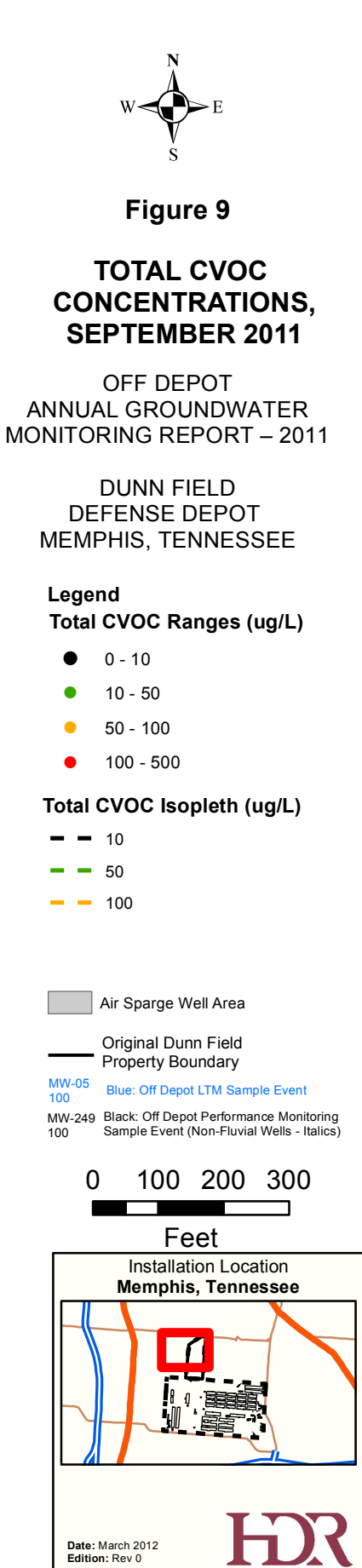
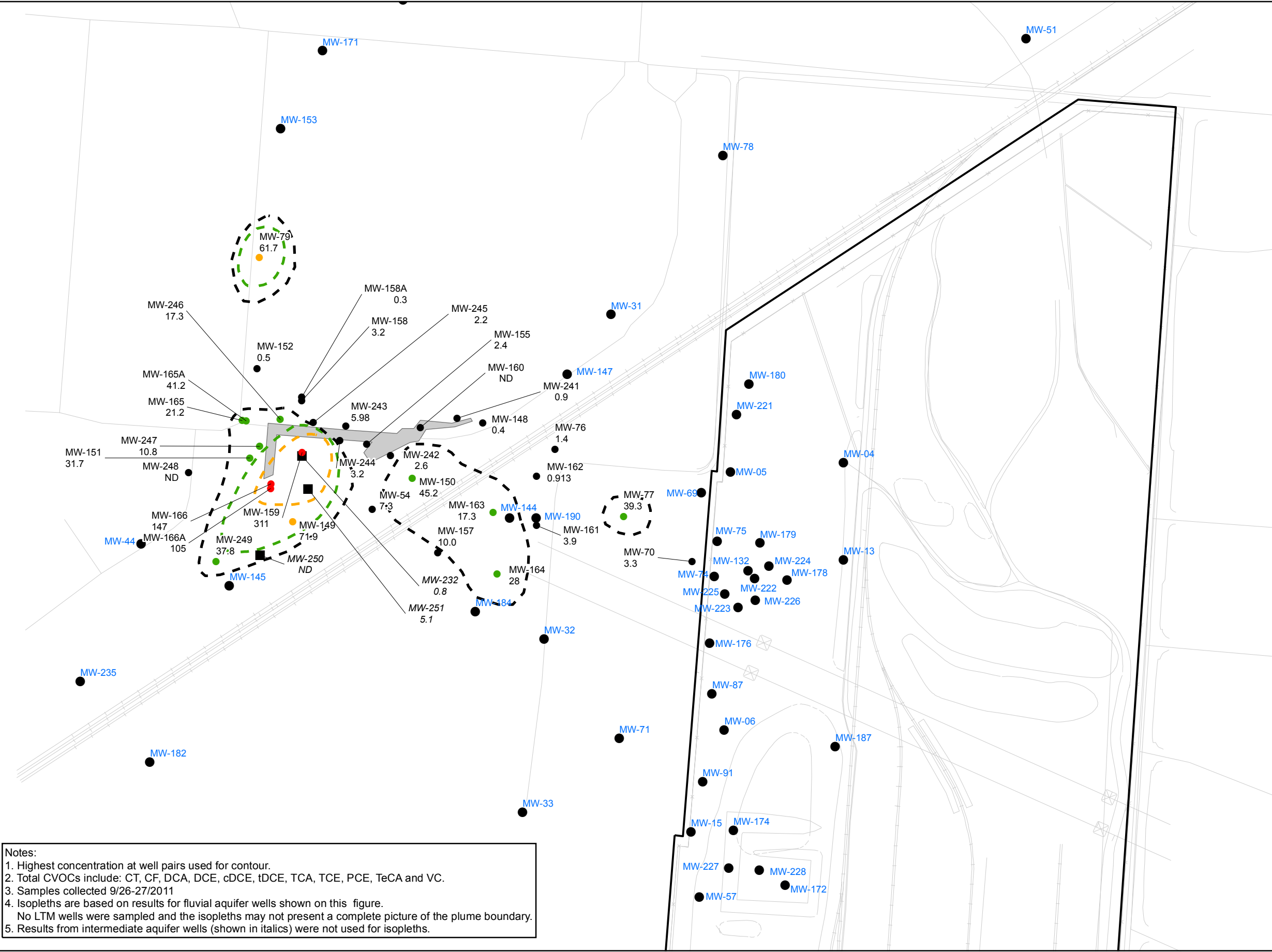
0 100 200 300
Feet

Installation Location
Memphis, Tennessee

Date: March 2012
Edition: Rev 0

HDR

Path: G:\121842\Off Depot GW 2011 Annual Report\GIS\Fig 9 TOTAL CVOC Sept2011.mxd



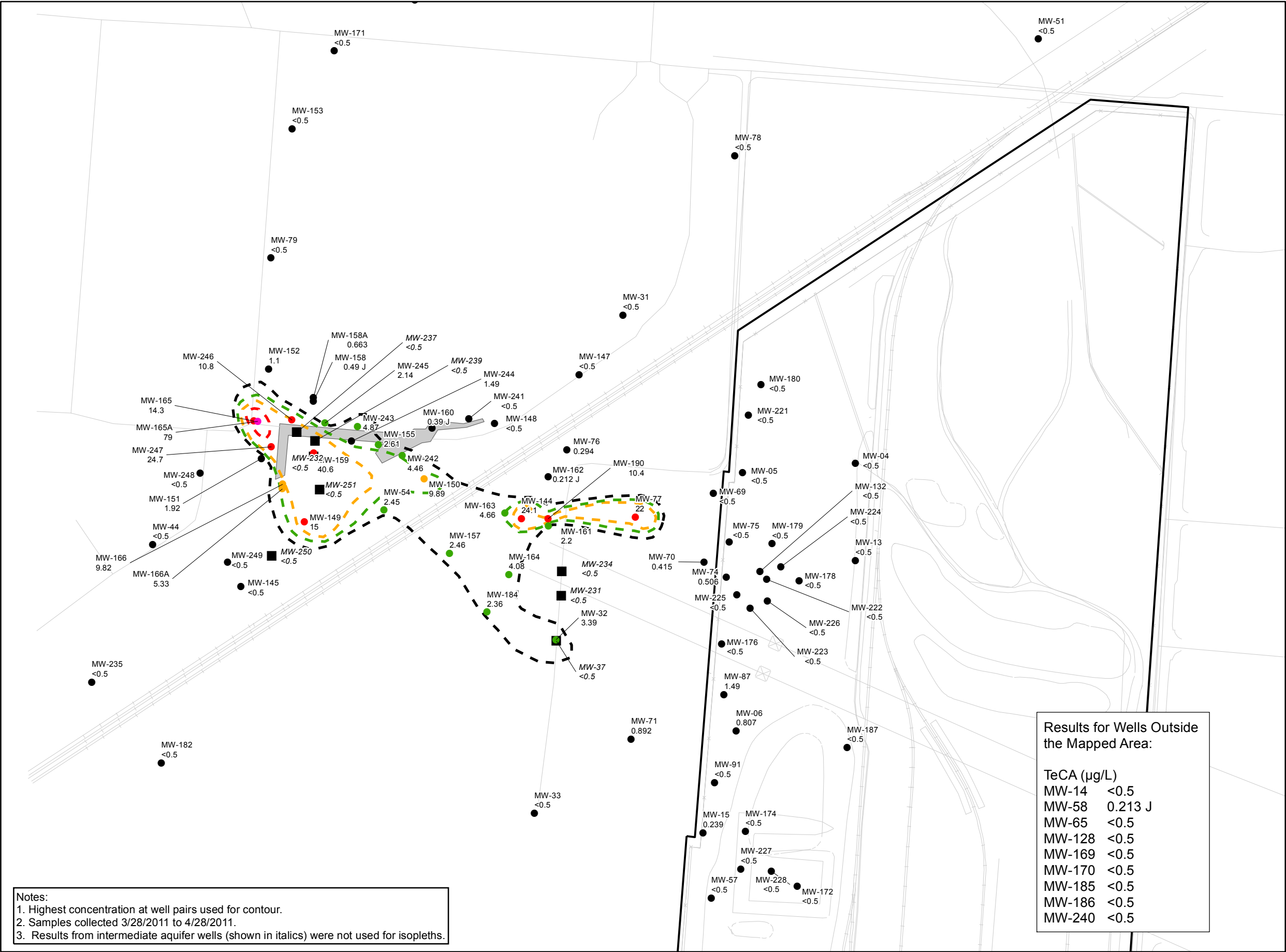


Figure 10

**TeCA
CONCENTRATIONS,
MARCH - APRIL 2011**

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TeCA Ranges (ug/L)

- 0-2
- 2-5
- 5-10
- 10-50
- 50-100

TeCA Isopleth (ug/L)

- 2.2
- 5
- 10
- 50

Air Sparge Well Area

Original Dunn Field Property Boundary

0 100 200 300

Feet

Installation Location
Memphis, Tennessee

Date: January 2012
Edition: Rev 0

Path: G:\121842\Off Depot GW 2011 Annual Report\GIS\Fig 11 PCE Mar2011.mxd

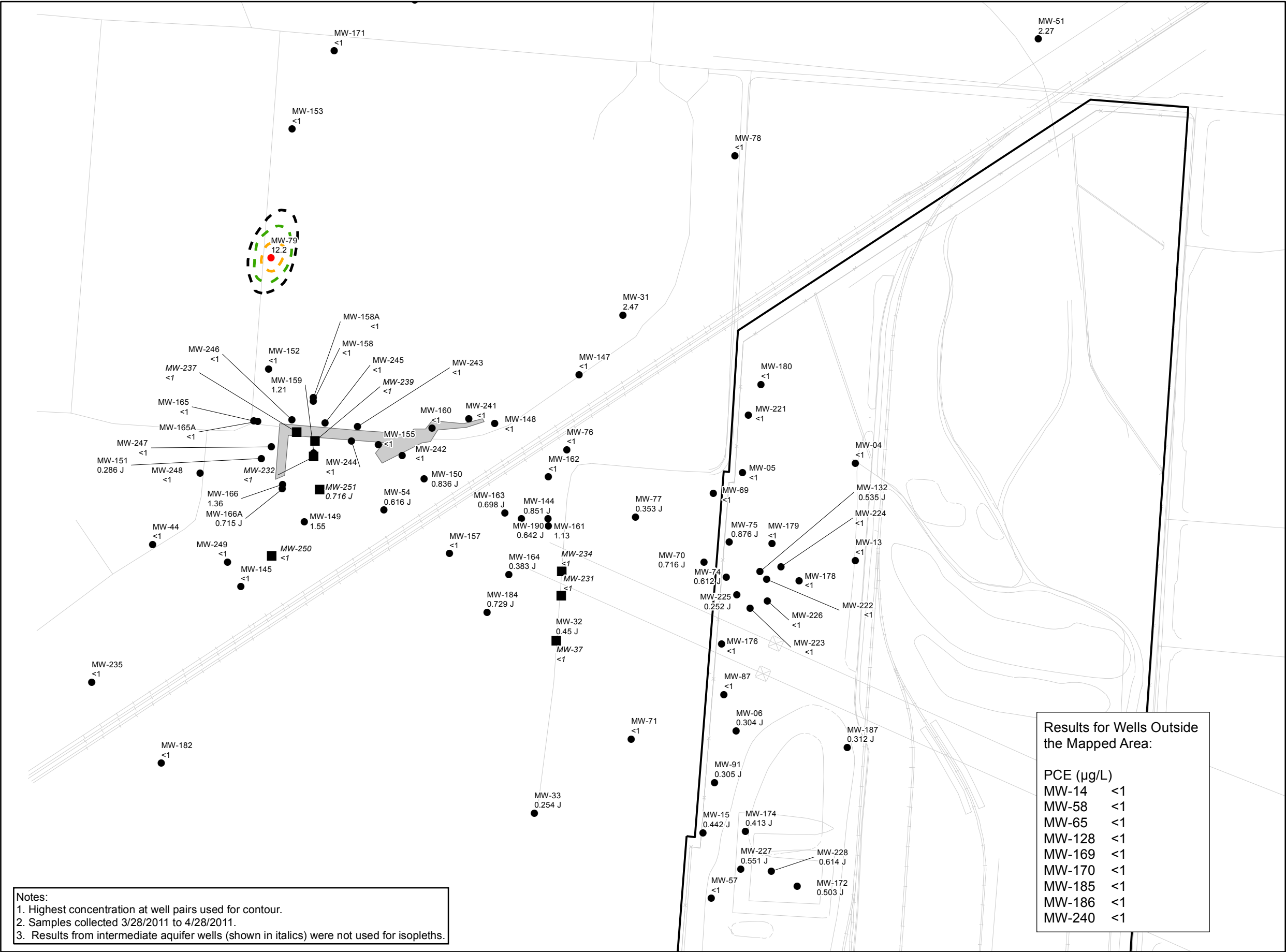


Figure 11

PCE CONCENTRATIONS, MARCH - APRIL 2011

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

PCE Ranges (ug/L)

- 0-2.5
- 2.5-5
- 5-10
- 10-50

PCE Isopleth (ug/L)

- 2.5
- 5
- 10

Air Sparge Well Area

Original Dunn Field Property Boundary

0 100 200 300
Feet

Installation Location
Memphis, Tennessee

Date: March 2012
Edition: Rev 0

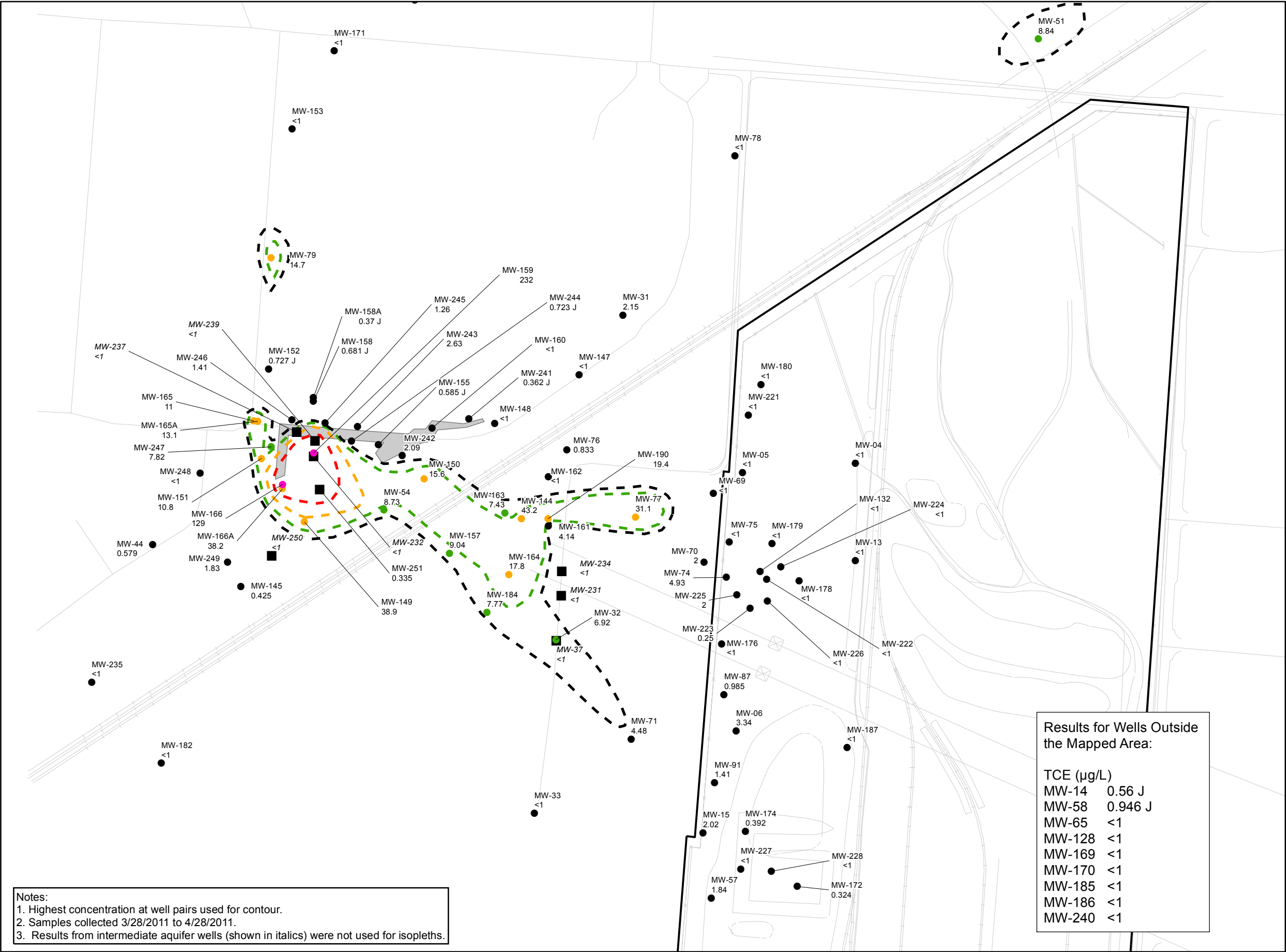


Figure 12

TCE CONCENTRATIONS, MARCH - APRIL 2011

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

TCE Ranges (ug/L)

- 0-5
- 5-10
- 10-50
- 50-100
- 100-250

TCE Isopleth (ug/L)

- 5
- 10
- 50
- 100

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

0 100 200 300
Feet

Installation Location
Memphis, Tennessee

Date: March 2012
Edition: Rev 0

HDR

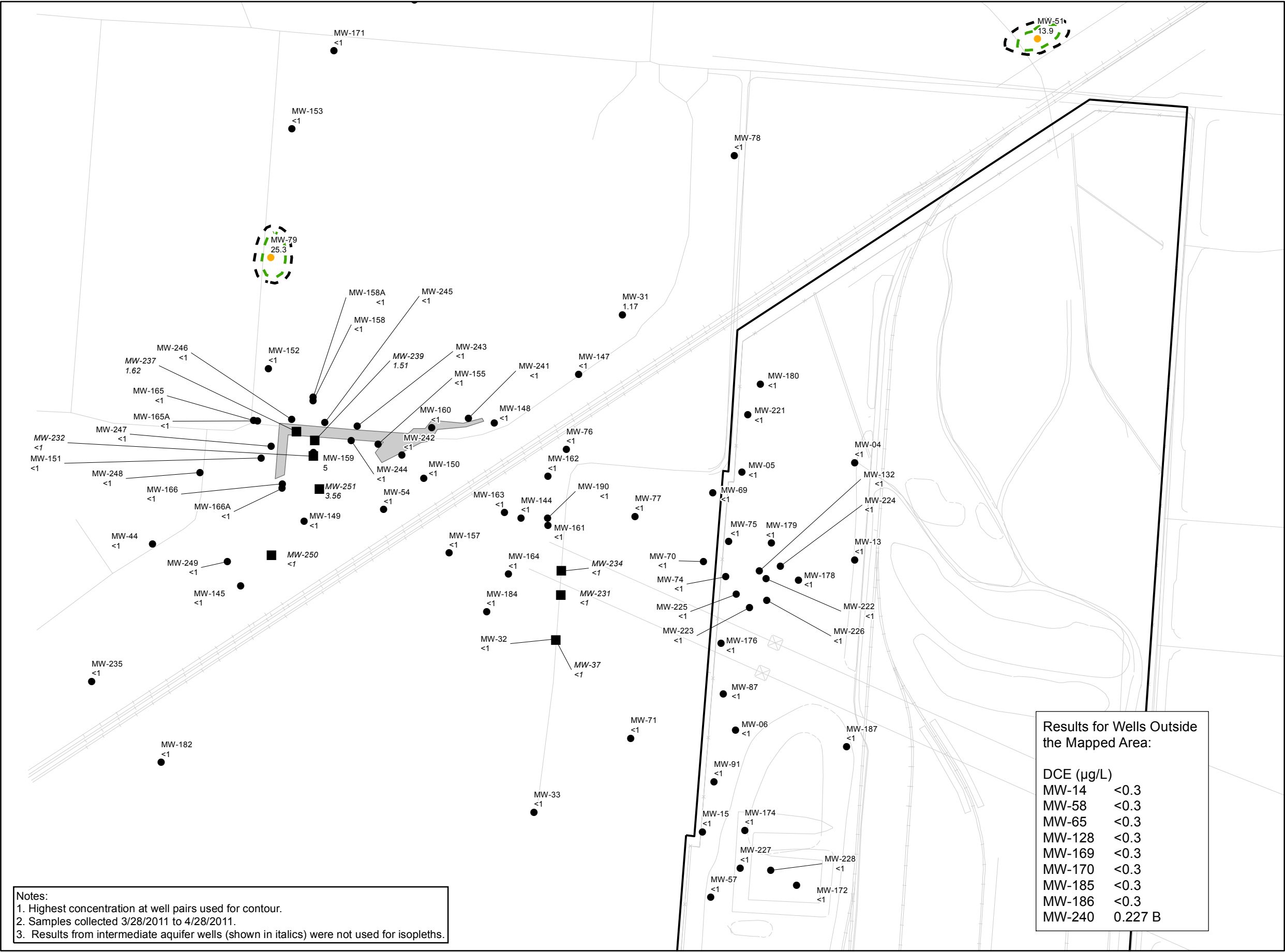


Figure 13

DCE CONCENTRATIONS, MARCH - APRIL 2011

OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

DCE Ranges (ug/L)

- 0-7
- 7-10
- 10-50

DCE Isopleth (ug/L)

- 7
- 10

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

0 100 200 300
Feet

Installation Location
Memphis, Tennessee

Date: March 2012
Edition: Rev 0

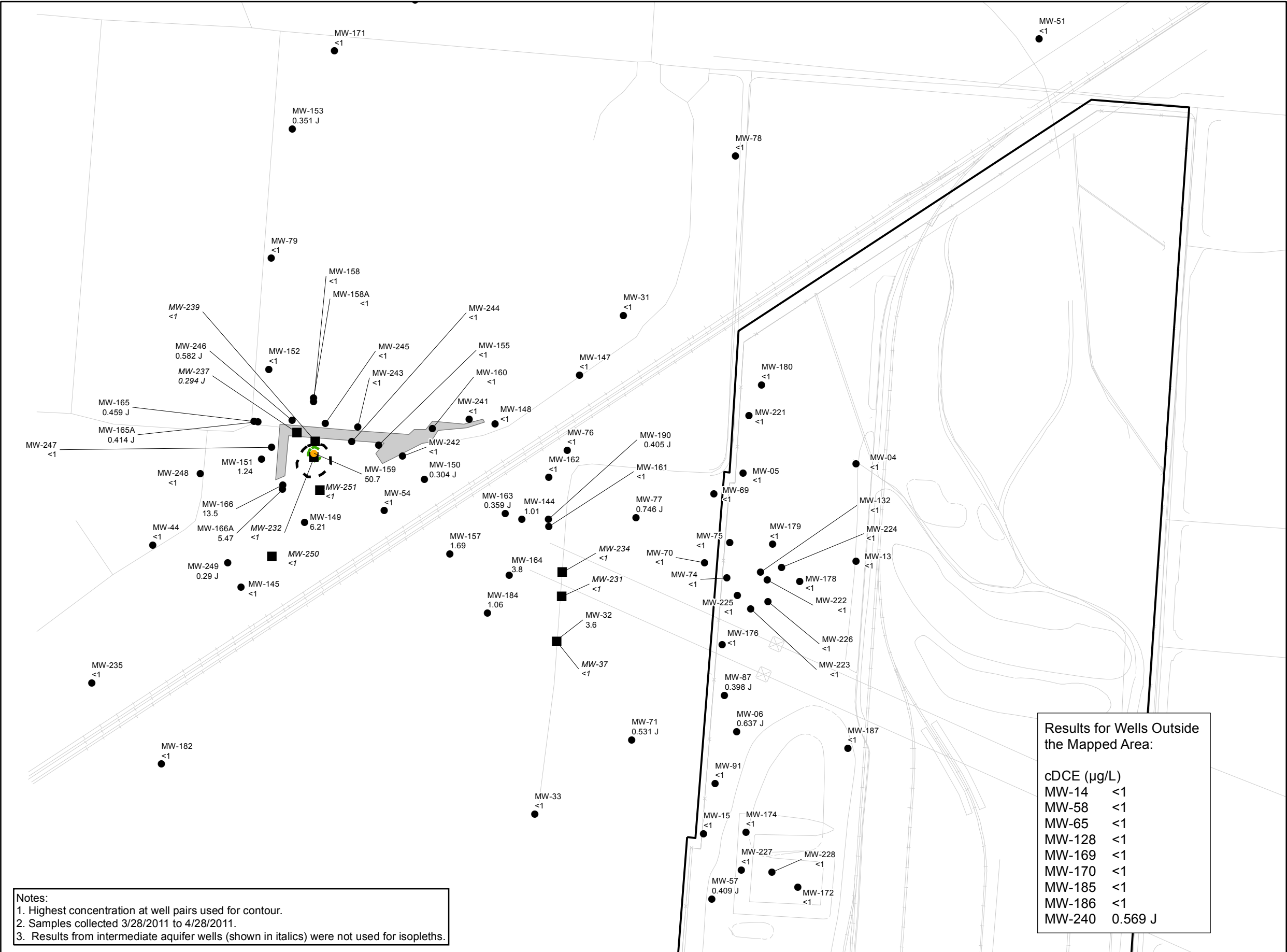


Figure 14

cDCE CONCENTRATIONS, MARCH - APRIL 2011

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

cDCE Ranges (ug/L)

- 0-35
- 35-50
- 50-100

cDCE Isopleth (ug/L)

- 35
- 50

■ Air Sparge Well Area

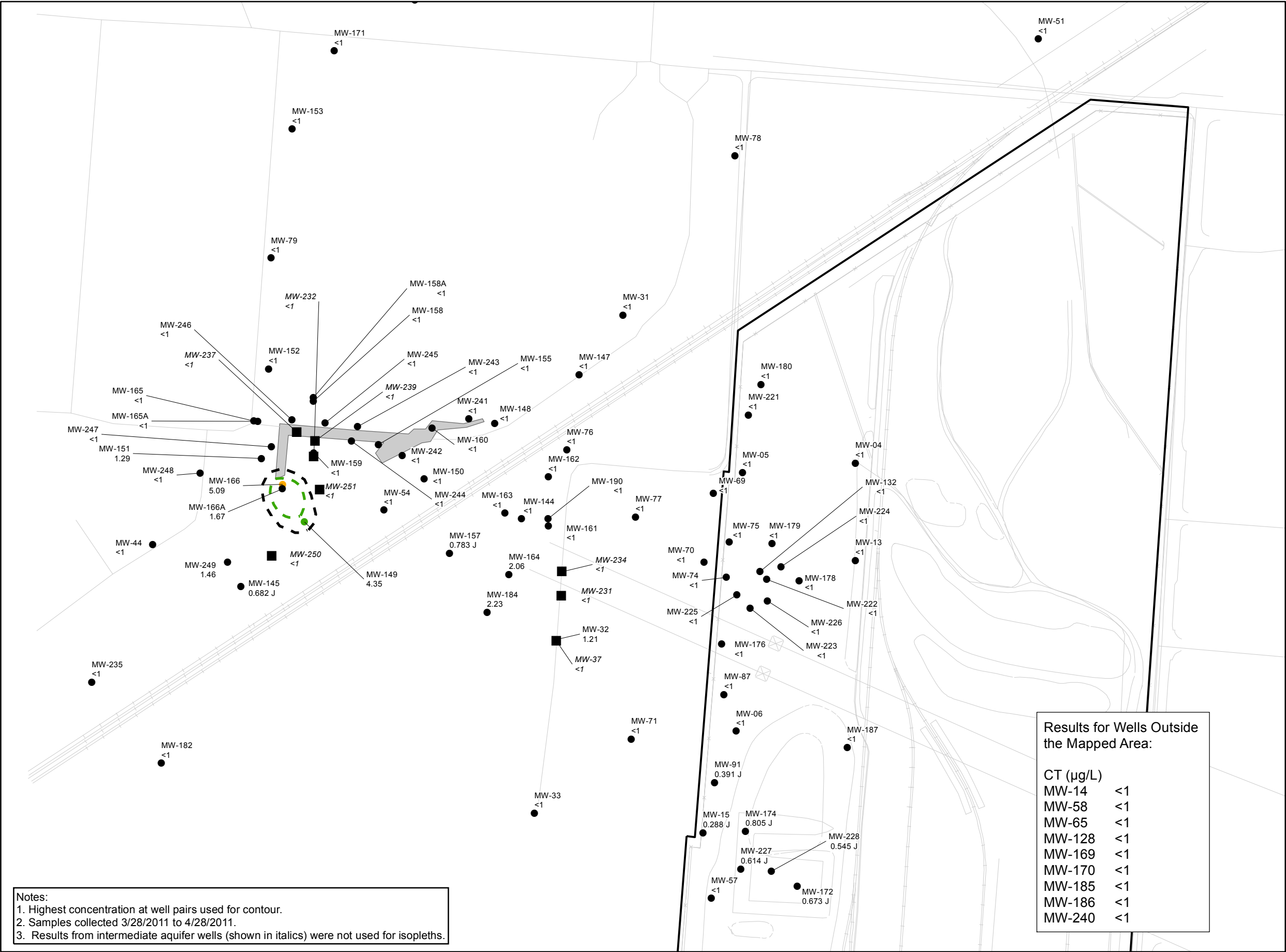
— Original Dunn Field Property Boundary

0 100 200 300
Feet

Installation Location
Memphis, Tennessee

Date: March 2012
Edition: Rev 0

Path: G:\121842\Off Depot GW 2011 Annual Report\GIS\Fig 15 CT Mar2011.mxd



Notes:
1. Highest concentration at well pairs used for contour.
2. Samples collected 3/28/2011 to 4/28/2011.
3. Results from intermediate aquifer wells (shown in italics) were not used for isopleths.



Figure 15

CT CONCENTRATIONS, MARCH - APRIL 2011

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

CT Ranges (ug/L)

- 0-3
- 3-5
- 5-10

CT Isopleth (ug/L)

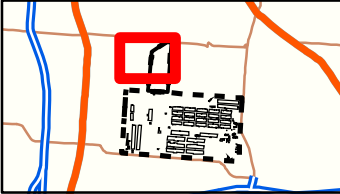
- 3
- 5

■ Air Sparge Well Area

— Original Dunn Field Property Boundary

0 100 200 300
Feet

Installation Location
Memphis, Tennessee



Date: March 2012
Edition: Rev 0



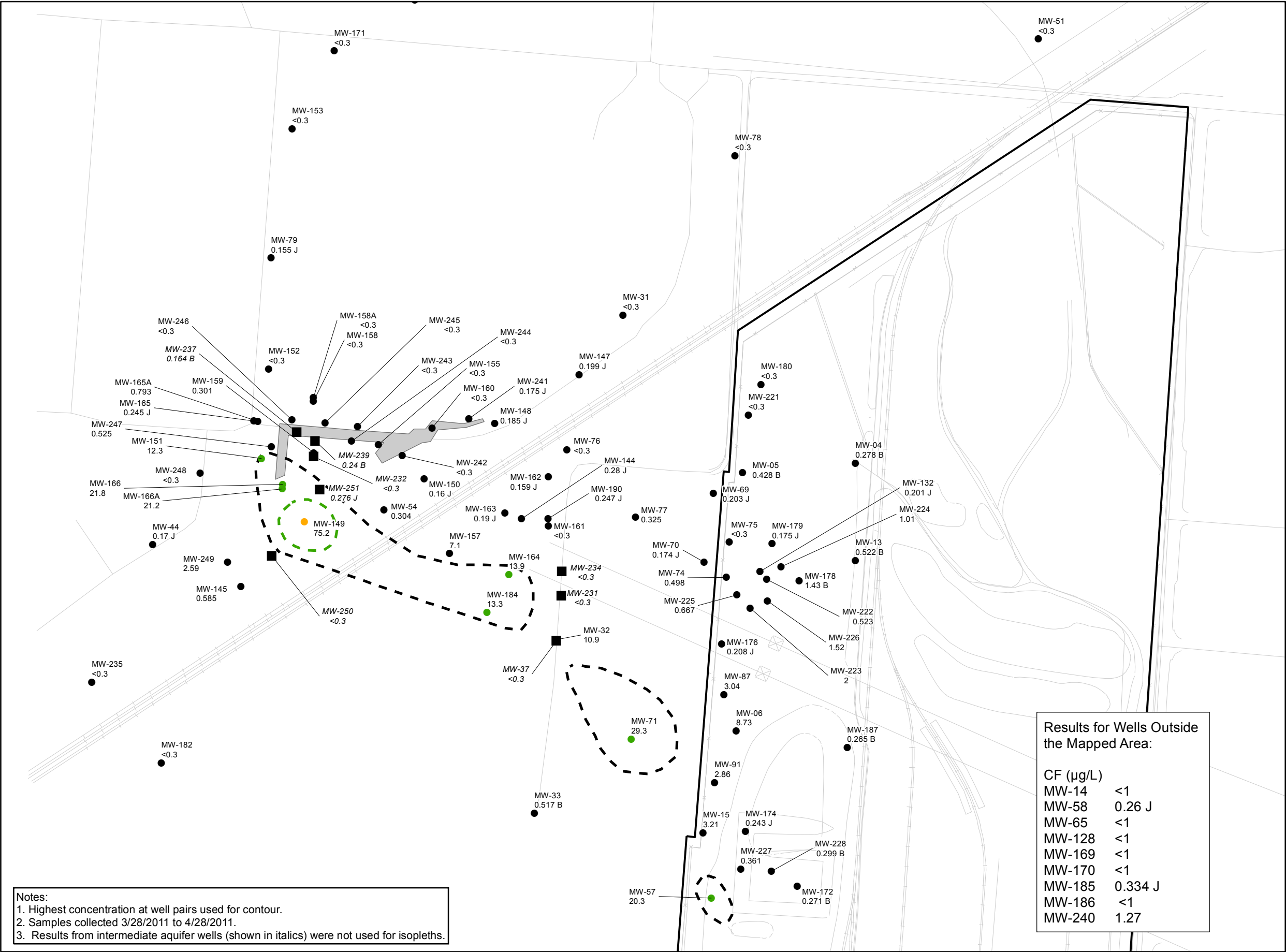


Figure 16

**CF
CONCENTRATIONS,
MARCH - APRIL 2011**

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

Legend

CF Ranges (ug/L)

- 0-12
- 12-50
- 50-100

TCE Isopleth (ug/L)

- 12
- 50

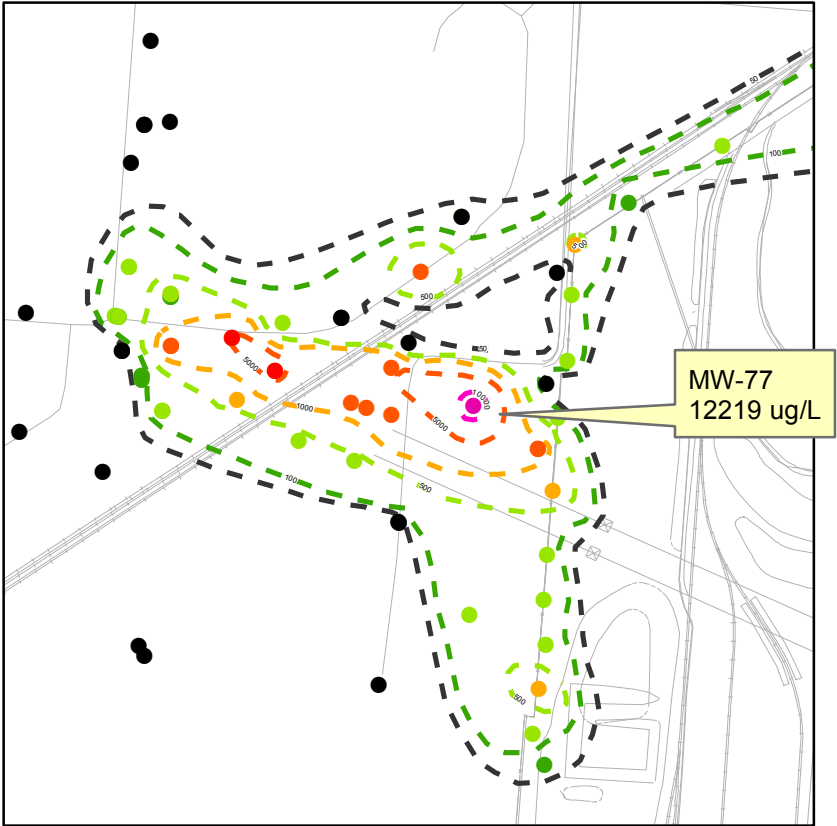
Air Sparge Well Area

Original Dunn Field
Property Boundary

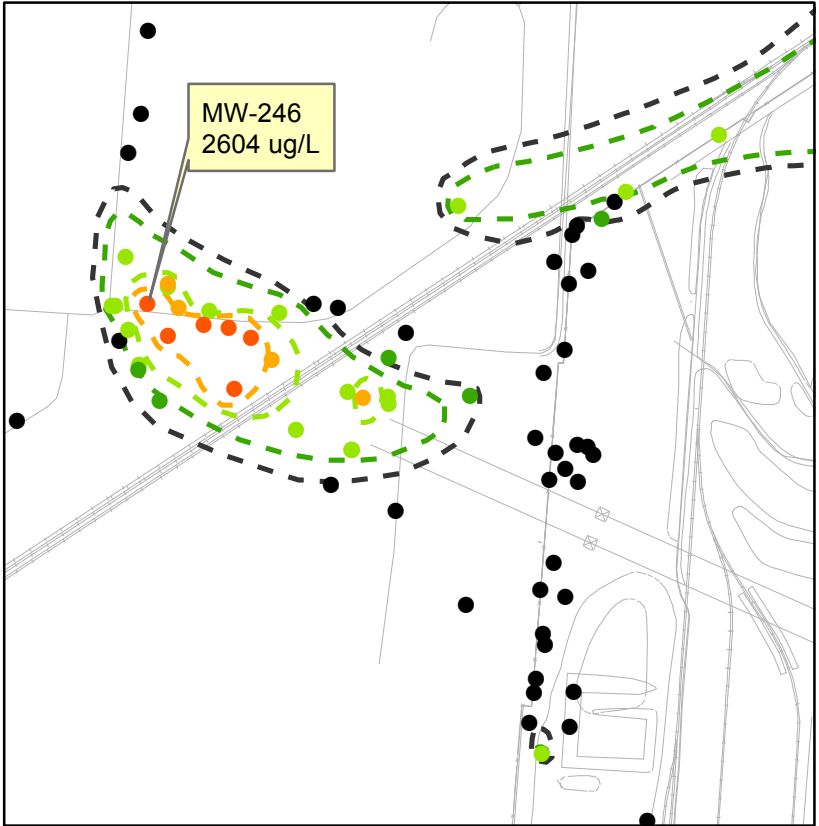
0 100 200 300
Feet

Installation Location
Memphis, Tennessee

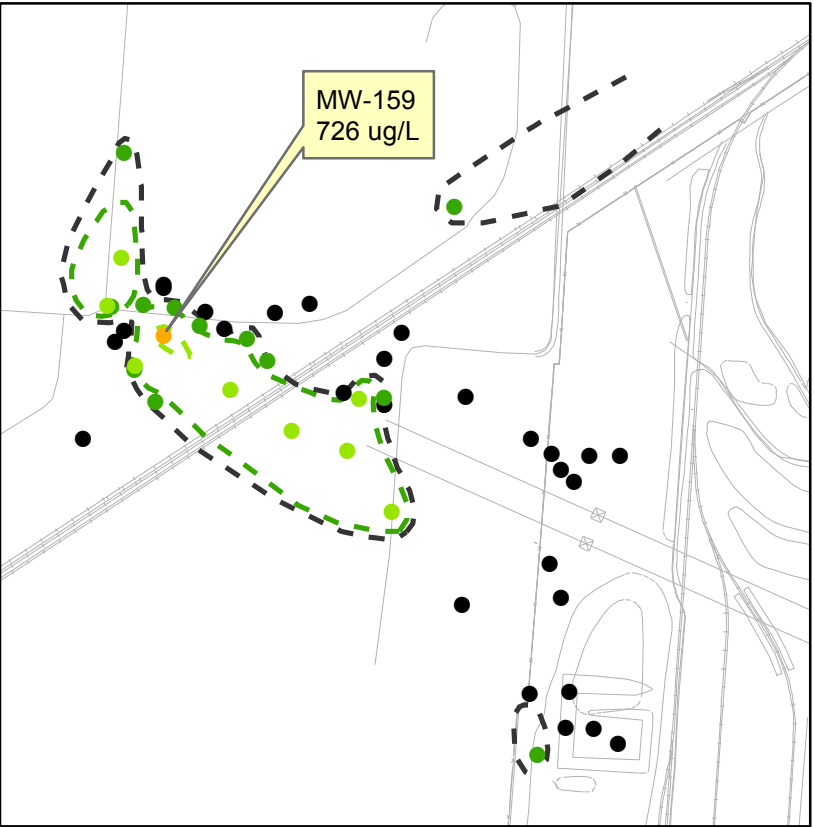
Date: March 2012
Edition: Rev 0



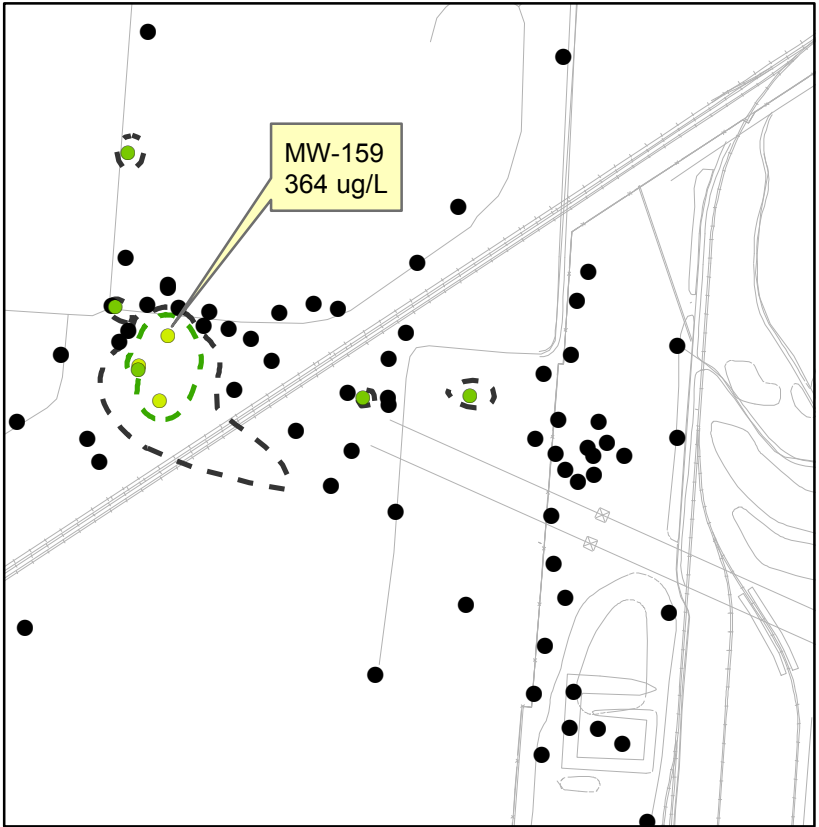
APRIL 2007



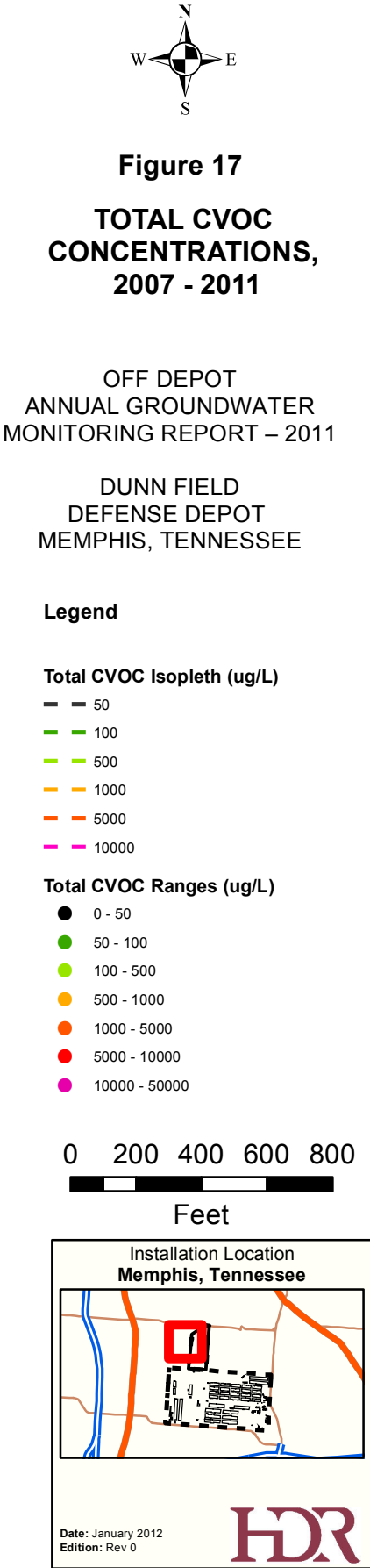
APRIL 2009



MARCH 2010



MARCH 2011



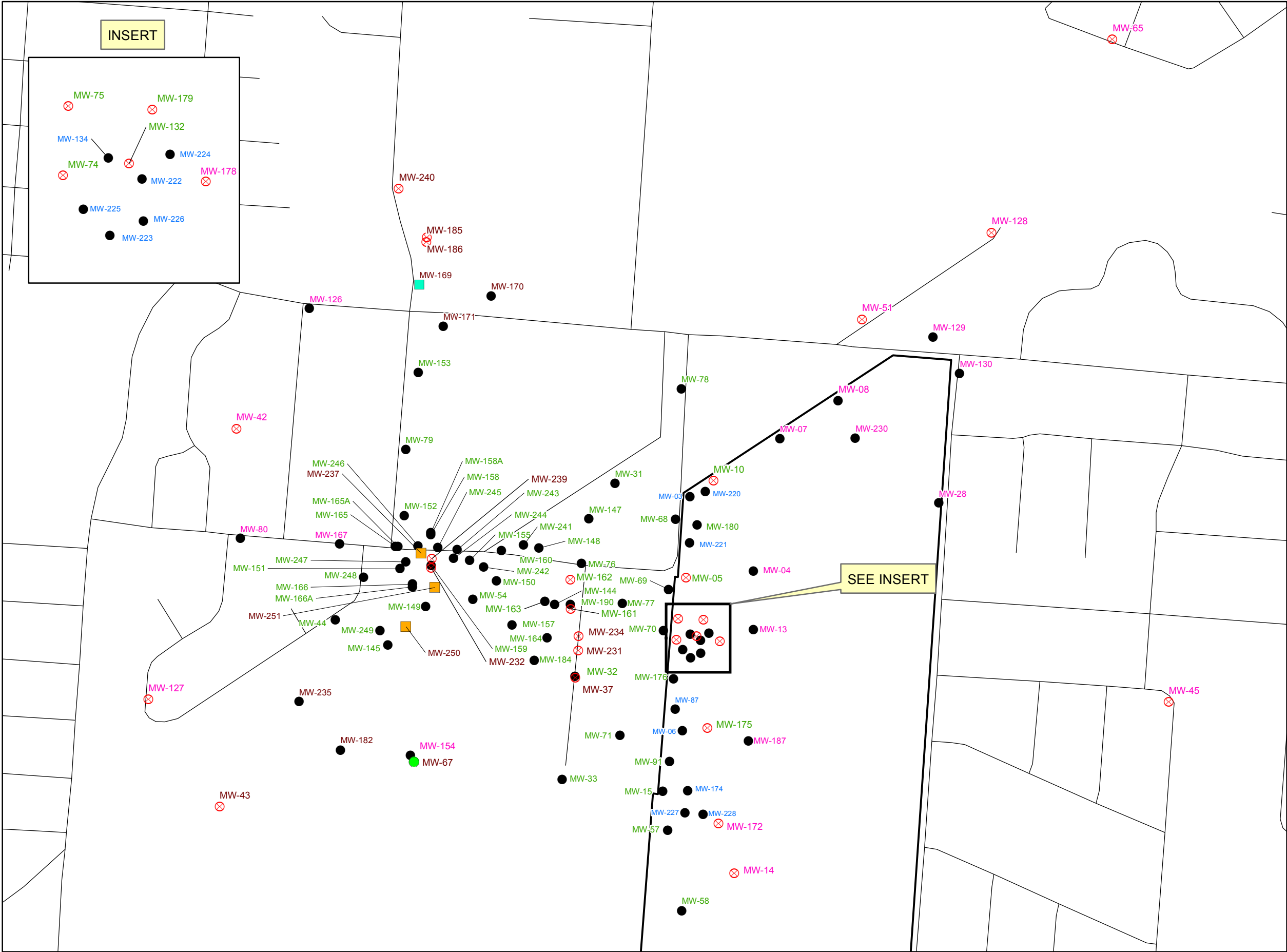


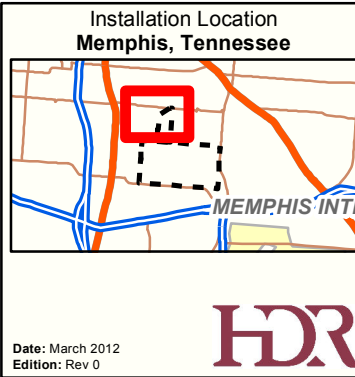
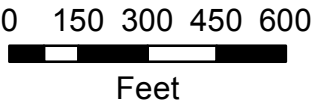
Figure 18

**LTM WELL LOCATION
MAP - 2012**

OFF DEPOT
ANNUAL GROUNDWATER
MONITORING REPORT – 2011

DUNN FIELD
DEFENSE DEPOT
MEMPHIS, TENNESSEE

- Legend**
- Monitoring 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
 - Recommended for Abandonment
- Off Depot Well Classification**
- MW-04 Background
 - MW-250 Sentinel
 - MW-07 Performance
 - MW-03 Performance-FSVE
- Dunn Field Boundary



Date: March 2012
Edition: Rev 0



APPENDIX A
COMPLETE ANALYTICAL RESULTS

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-04 4/28/2011 L11050034-08	MW-04 DUP 4/28/2011 L11050034-03	MW-05 4/28/2011 L11050034-09	MW-06 4/26/2011 L11040914-04	MW-13 4/28/2011 L11050034-11	MW-14 4/28/2011 L11050034-12
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.807	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	0.393 B	0.373 B	<0.5	<0.5	0.772 B	0.488 B
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	<10 UJ	<10	<10	<10 UJ	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1 UJ	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1 UJ	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.56 J
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.278 B	0.274 B	0.428 B	8.73	0.522 B	<0.3
Chloromethane	µg/L	<1	<1	<1	<1 UJ	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.637 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.304 J	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	3.34	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-15 4/26/2011 L11040914-09	MW-31 4/26/2011 L11040914-22	MW-32 4/26/2011 L11040914-23	MW-33 4/28/2011 L11050034-35	MW-37 4/28/2011 L11050034-36	MW-44 4/26/2011 L11040914-24
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.239 J	<0.5	3.39	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	0.184 J	<1	<1
1,1-Dichloroethene	µg/L	<1	1.17	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	0.327 B	0.61 B	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	<10	<10 UJ	<10 UJ	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.288 J	<1	1.21	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	3.21	<0.3	10.9	0.517 B	<0.3	0.17 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	3.6	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.442 J	2.47	0.45 J	0.254 J	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.02	2.15	6.92	<1	<1	0.579 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-44 DUP 4/26/2011 L11040914-02	MW-51 4/28/2011 L11050034-37	MW-57 4/26/2011 L11040914-25	MW-58 4/28/2011 L11050034-38	MW-65 4/28/2011 L11050034-39	MW-69 4/26/2011 L11040914-26
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.213 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	13.9	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	0.134 B	<0.5	<0.5	0.719 B	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10 UJ	<10	<10 UJ	3.33 B	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	0.946 J	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.179 J	<0.3	20.3	<0.3	<0.3	0.203 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.409 J	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	2.27	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.579 J	8.84	1.84	0.26 J	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-71 4/26/2011 L11040914-27	MW-74 4/26/2011 L11040914-28	MW-75 4/26/2011 L11040914-29	MW-78 4/28/2011 L11050034-42	MW-87 4/26/2011 L11040914-30	MW-91 4/28/2011 L11050038-01
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.892	0.506	<0.5	<0.5	1.49	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	0.506 B	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	3.54 J	<10	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.391 J
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	29.3	0.498	<0.3	<0.3	3.04	2.86
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.531 J	<1	<1	<1	0.398 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.612 J	0.876 J	<1	<1	0.305 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.48	4.93	<1	<1	0.985 J	1.41
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-128 4/28/2011 L11050034-10	MW-132 4/26/2011 L11040914-05	MW-144 4/26/2011 L11040914-06	MW-145 4/26/2011 L11040914-07	MW-147 4/26/2011 L11040914-08	MW-153 4/28/2011 L11050034-13
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	24.1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	2.64 J	2.64 J	<10	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	0.682 J	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.201 J	0.28 J	0.585	0.199 J	<0.3
Chloromethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	1.01	<1	<1	0.351 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.535 J	0.851 J	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	43.2	0.425 J	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-169 4/28/2011 L11050034-14	MW-170 4/28/2011 L11050034-15	MW-171 4/28/2011 L11050034-16	MW-171 DUP 4/28/2011 L11050034-04	MW-172 4/28/2011 L11050034-17	MW-174 4/26/2011 L11040914-10
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	1.06 B	0.597 B	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10 UJ	<10 UJ	2.9 B	<10 UJ	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	0.673 J	0.805 J
Chlorobenzene	µg/L	0.969	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	0.271 B	0.243 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1 UJ	<1	<1 UJ	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	0.503 J	0.413 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	0.324 J	0.392 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-176 4/26/2011 L11040914-11	MW-176 DUP 4/26/2011 L11040914-03	MW-178 4/28/2011 L11050034-20	MW-179 4/26/2011 L11040914-12	MW-180 4/26/2011 L11040914-13	MW-182 4/28/2011 L11050034-21
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	0.129 B	<0.5	<0.5	0.433 B
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	<10	<10	<10	3.45 B
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1 UJ	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	0.218 J	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.208 J	0.265 J	1.43 B	0.175 J	<0.3	<0.3
Chloromethane	µg/L	<1	<1 UJ	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1 UJ	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-184 4/28/2011 L11050034-22	MW-185 4/28/2011 L11050034-23	MW-185 DUP 4/28/2011 L11050034-05	MW-186 4/28/2011 L11050034-24	MW-187 4/28/2011 L11050034-25	MW-190 4/26/2011 L11040914-14
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	2.36	<0.5	<0.5	<0.5	<0.5	10.4
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	0.367 B	0.37 B	<0.5	0.386 B	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	2.75 B	<10 UJ	43.2	<10	3.29 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.23	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	13.3	<0.3	<0.3	<0.3	0.265 B	0.247 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	1.06	<1	<1	<1	<1	0.405 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	3.79 J	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1 UJ	<1 UJ	<1	<1 UJ	<1 UJ	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.729 J	<1	<1	<1	0.312 J	0.642 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	7.77	0.334 J	0.37 J	<1	<1	19.4
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-221 4/26/2011 L11040914-15	MW-222 4/26/2011 L11040914-16	MW-223 4/26/2011 L11040914-17	MW-224 4/26/2011 L11040914-18	MW-225 4/26/2011 L11040914-19	MW-226 4/26/2011 L11040914-20
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	0.128 J	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	4.64 J	3.97 J	4.27 J	4.1 J	2.81 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.523	2	1.01	0.667	1.52
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	0.252 J	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.25 J	<1	2	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-227 4/26/2011 L11040914-21	MW-228 4/28/2011 L11050034-26	MW-228 DUP 4/28/2011 L11050034-06	MW-231 4/28/2011 L11050034-27	MW-234 4/28/2011 L11050034-28	MW-235 4/28/2011 L11050034-29
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	0.35 B	1.16 B	0.567 B
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	2.57 J	<10 UJ	<10 UJ	<10	<10 UJ	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.614 J	0.545 J	0.494 J	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.361	0.299 B	0.282 B	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1 UJ	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.551 J	0.614 J	0.503 J	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-1
ANALYTICAL RESULTS – LTM, APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well ID Date Lab ID Units	MW-237 4/28/2011 L11050034-32	MW-239 4/28/2011 L11050034-33	MW-240 4/28/2011 L11050034-34
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	0.289 J	<1
1,1-Dichloroethene	µg/L	1.62	1.51	<1
1,1-Dichloropropene	µg/L	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	0.608 B	0.675 B	0.772 B
1-Chlorohexane	µg/L	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1
Acetone	µg/L	<10 UJ	<10 UJ	<10 UJ
Benzene	µg/L	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1
Chloroform	µg/L	0.164 B	0.24 B	0.227 B
Chloromethane	µg/L	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.294 J	<1	0.569 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1
Styrene	µg/L	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
Toluene	µg/L	<1	0.698 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.27
Trichlorofluoromethane	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-54 L11040913-05 4/25/2011	MW-54 DUP L11040913-02 4/25/2011	MW-70 L11040913-06 4/25/2011	MW-76 L11040913-09 4/25/2011	MW-77 L11040913-10 4/25/2011	MW-79 L11040913-11 4/25/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	0.267 J
1,1,2,2-Tetrachloroethane	µg/L	2.45	3.59	0.415 J	0.294 J	22	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	0.61 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	25.3
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	19.4	20.4	<10	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.304	0.271 J	0.174 J	<0.3	0.325	0.155 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.746 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.616 J	0.745 J	0.716 J	<1	0.353 J	12.2
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8.73	10.4	2	0.833 J	31.1	14.7
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-148 L11030971-05 3/28/2011	MW-149 L11030971-06 3/28/2011	MW-150 L11030971-07 3/28/2011	MW-151 L11030971-08 3/28/2011	MW-152 L11030971-09 3/28/2011	MW-155 L11030971-10 3/28/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	15	9.89	1.92	1.1	2.61
1,1,2-Trichloroethane	µg/L	<1	0.764 J	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	4.18 J	6.14 J	4.9 J	6.21 J	3.47 J	2.87 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	4.35	<1	1.29	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.185 J	75.2	0.16 J	12.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	6.21	0.304 J	1.24	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	1.55	0.836 J	0.286 J	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	0.722 J	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	38.9	15.6	10.8	0.727 J	0.585 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-155 DUP L11030971-02 3/28/2011	MW-157 L11030971-11 3/28/2011	MW-158 L11030971-12 3/28/2011	MW-158 DUP L11030971-03 3/28/2011	MW-158A L11030971-13 3/28/2011	MW-159 L11030971-14 3/28/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	2.62	2.46	0.49 J	0.496 J	0.663	40.6
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	7.05
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	5
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	3.16 J	5.3 J	5.93 J	6.43 J	5.62 J	6.32 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.783 J	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	7.1	<0.3	<0.3	<0.3	0.301
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	1.69	<1	<1	<1	50.7
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	1.21
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	4.87
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.663 J	9.04	0.681 J	0.727 J	0.37 J	232
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	22.5

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-160 L11030971-15 3/28/2011	MW-161 L11030971-16 3/28/2011	MW-162 L11030971-17 3/28/2011	MW-163 L11030971-18 3/28/2011	MW-164 L11030971-19 3/28/2011	MW-165 L11030971-22 3/28/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	0.39 J	2.2	0.212 J	4.66	4.08	14.3
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	1.52
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	5.57 J	5.75 J	4.04 J	5.8 J	5.18 J	4.85 J
Benzene	µg/L	<0.4	<0.4	<0.4	0.345 J	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	2.06	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.159 J	0.19 J	13.9	0.245 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.359 J	3.8	0.459 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	1.13	<1	0.698 J	0.383 J	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.357 J	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	4.14	<1	7.43	17.8	11
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-165A L11030971-23 3/28/2011	MW-166 L11030971-24 3/28/2011	MW-166A L11030971-25 3/28/2011	MW-232 L11030971-26 3/28/2011	MW-241 L11030971-27 3/28/2011	MW-242 L11030971-28 3/28/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	79	9.82	5.33	<0.5	<0.5	4.46
1,1,2-Trichloroethane	µg/L	0.461 J	0.445 J	0.355 J	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	6.17 J	5.78 J	5.97 J	7.39 J	3.72 J	5.16 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	5.09	1.67	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.793	21.8	21.2	<0.3	0.175 J	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.414 J	13.5	5.47	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	1.36	0.715 J	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	1.64	0.532 J	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	13.1	129	38.2	<1	0.362 J	2.09
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	0.585 J	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-243 L11030971-29 3/28/2011	MW-244 L11030971-30 3/28/2011	MW-245 L11030971-31 3/28/2011	MW-246 L11030971-32 3/28/2011	MW-247 L11030971-33 3/28/2011	MW-247 DUP L11030971-04 3/28/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	4.87	1.49	2.14	10.8	24.7	24.9
1,1,2-Trichloroethane	µg/L	<1	<1	<1	0.689 J	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	5.04 J	3.82 J	5.32 J	4.75 J	5.69 J	5.74 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	0.525	0.517
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.582 J	<1	0.262 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.63	0.723 J	1.26	1.41	7.82	7.69
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-2
ANALYTICAL RESULTS – PERFORMANCE MONITORING, MARCH-APRIL
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-248 L11030971-34 3/28/2011	MW-249 L11030971-35 3/28/2011	MW-250 L11040913-03 4/25/2011	MW-251 L11040913-04 4/25/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	0.524 J
1,1-Dichloroethene	µg/L	<1	<1	<1	3.56
1,1-Dichloropropene	µg/L	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1
Acetone	µg/L	<10	4.92 J	19.9	17.7
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	1.46	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	2.59	<0.3	0.276 J
Chloromethane	µg/L	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.29 J	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	0.716 J
Toluene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	1.83	<1	0.335 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-3
ANALYTICAL RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-54 L11090899-36 9/26/2011	MW-70 L11090899-01 9/27/2011	MW-76 L11090899-02 9/27/2011	MW-77 L11090899-03 9/27/2011	MW-79 L11090899-04 9/27/2011	MW-79 DUP 1 L11090899-32 9/27/2011	MW-148 L11090899-05 9/27/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	0.285 J	0.286 J	<1
1,1,2,2-Tetrachloroethane	µg/L	1.64	0.669	0.276 J	16.9	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	0.66 J	0.741 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	25.3	29.3	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	4.42 J	4.05 J	2.85 J	4.96 J	4.86 J	5.63 J	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.692	<0.3	0.15 J	0.425	1.31	1.47	0.164 J
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.442 J	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.537 J	1.03	0.3 J	0.369 J	15.4	15.6	0.254 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.4	1.64	0.717 J	21.2	19.7	19.9	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-3
ANALYTICAL RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-149 L11090899-06 9/27/2011	MW-150 L11090899-37 9/26/2011	MW-151 L11090899-07 9/27/2011	MW-152 L11090899-08 9/27/2011	MW-155 L11090899-38 9/26/2011	MW-157 L11090899-09 9/27/2011	MW-158 L11090899-42 9/27/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	12.1	15.5	2.45	<0.5	1.68	1.34	1.15
1,1,2-Trichloroethane	µg/L	0.42 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	12.9	7.75 J	<10	<10	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.26	<1	1.18	<1	<1	0.314 J	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	34.5	0.878	16.3	<0.3	<0.3	3.46	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	3.14	0.757 J	0.998 J	<1	<1	0.659 J	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.838 J	<1	0.3 J	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.27 J	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	18.4	28.1	10.5	0.478 J	0.709 J	4.18	2
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-3
ANALYTICAL RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-158A L11090899-43 9/27/2011	MW-159 L11090899-10 9/27/2011	MW-159 DUP 2 L11090899-33 9/27/2011	MW-160 L11090899-11 9/27/2011	MW-161 L11090899-12 9/27/2011	MW-162 L11090899-13 9/27/2011	MW-163 L11090899-14 9/27/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	32.5	32.7	<0.5	0.727	0.359 J	5.74
1,1,2-Trichloroethane	µg/L	<1	6.44	6.25	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	4.42	4.19	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	5.02 J	20.1 J	19	<10	<10	<10	3.86 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.289 J	0.356	<0.3	<0.3	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	49.9	47.4	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	1.11	1.23	<1	1.13	<1	0.884 J
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	6.55	5.96	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.302 J	193	245	<1	2.06	0.554 J	10.7
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	16.7	16	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-3
ANALYTICAL RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-164 L11090899-15 9/27/2011	MW-165 L11090899-18 9/27/2011	MW-165A L11090899-19 9/27/2011	MW-166 L11090899-20 9/27/2011	MW-166A L11090899-21 9/27/2011	MW-232 L11090899-22 9/27/2011	MW-232 DUP 3 L11090899-34 9/27/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	2.64	10.6	33.9	14.3	12.1	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	1.18	<1	0.716 J	0.497 J	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	4.14 J	3.13 J	3.56 J	6.51 J	9.91 J	21	18.9 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1.62	<1	<1	5.5	3.24	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	9	0.502	0.41	67.5	54.4	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	2.25	0.546 J	0.251 J	6.33	4.57	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.385 J	<1	<1	1.49	0.952 J	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	0.864 J	0.408 J	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	12.1	8.33	6.67	50.2	28.9	0.275 J	0.286 J
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	0.483 J	0.364 J

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-3
ANALYTICAL RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-241 L11090899-44 9/27/2011	MW-242 L11090899-39 9/26/2011	MW-243 L11090899-23 9/27/2011	MW-244 L11090899-24 9/27/2011	MW-245 L11090899-45 9/27/2011	MW-246 L11090899-46 9/27/2011	MW-247 L11090899-25 9/27/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.937	4.42	2.59	1.42	14.8	5.59
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	0.294 J	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10	<10	<10	<10	<10	<10
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.132 J	0.384	<0.3	<0.3	<0.3	<0.3	1.84
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.472	0.847 J
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.736 J	1.32	1.56	0.624 J	0.824 J	1.74	2.53
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-3
ANALYTICAL RESULTS – PERFORMANCE MONITORING, SEPTEMBER
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Well Lab ID Date Units	MW-248 L11090899-28 9/27/2011	MW-249 L11090899-29 9/27/2011	MW-250 L11090899-30 9/27/2011	MW-250 DUP 4 L11090899-35 9/27/2011	MW-251 L11090899-40 9/26/2011
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.6	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	0.61 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	4.12
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1
Acetone	µg/L	<10	2.86 J	3.92 J	4.04 J	4.38 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	3.47	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	19.9	<0.3	<0.3	0.322
Chloromethane	µg/L	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	0.892 J	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.51 J	<1	<1	0.626 J
Toluene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	12.4	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

B: Blank Contamination

TABLE A-4
QUALITY CONTROL SAMPLE ANALYTICAL RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Sample ID Date Lab ID Units	TB-1-ODLB-3 4/26/2011 L11040914-01	TB-2-ODLB-3 4/28/2011 L11050034-01	TB-3-ODLB-3 4/29/2011 L11050034-02	LTM-RB1-ODLB-3 4/29/2011 L11050034-07	TB-1-ODPM-8 4/25/2011 L11040913-01	RB-ODPM-9 9/27/2011 L11090899-31
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2	<2	<2	<2	<2
1,2-Dibromoethane	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1	<1	<1	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	<0.5	0.837	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1	<1	<1	<1	<1
2,2-Dichloropropane	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
2-Hexanone	µg/L	<10	<10	<10	<10	<10	<10
4-Chlorotoluene	µg/L	<1	<1	<1	<1	<1	<1
Acetone	µg/L	<10	<10 UJ	<10 UJ	2.63 J	<10	3.83 J
Benzene	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Bromobenzene	µg/L	<1	<1	<1	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	µg/L	<1	<1	<1	<1	<1	<1
Bromomethane	µg/L	<1	<1	<1	<1	<1	<1
Carbon disulfide	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	0.875	<0.3	<0.3
Chloromethane	µg/L	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1	<1
m-,p-Xylene	µg/L	<2	<2	<2	<2	<2	<2
MEK (2-Butanone)	µg/L	<10	<10	<10	<10	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5	<5	<5	<5	<5
Methylene chloride	µg/L	<1	<1	<1	<1	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10	<10	<10	<10	<10
Naphthalene	µg/L	<1	<1	<1	<1	<1	<1
n-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
n-Propylbenzene	µg/L	<1	<1	<1	<1	<1	<1
o-Xylene	µg/L	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	µg/L	<1	<1	<1	<1	<1	<1
sec-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Styrene	µg/L	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

UJ: Not Detected, Estimated

TABLE A-4
QUALITY CONTROL SAMPLE ANALYTICAL RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT
Dunn Field - Defense Depot Memphis Tennessee

Analyte	Sample ID Date Lab ID Units	TB-1-ODPM-9 9/26/2011 L11090899-41	TB-2-ODPM-9 9/27/2011 L11090899-47
1,1,1,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,1-Trichloroethane	µg/L	<1	<1
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
1,1-Dichloropropene	µg/L	<1	<1
1,2,3-Trichlorobenzene	µg/L	<1	<1
1,2,3-Trichloropropane	µg/L	<1	<1
1,2,4-Trichlorobenzene	µg/L	<1	<1
1,2,4-Trimethylbenzene	µg/L	<1	<1
1,2-Dibromo-3-chloropropane	µg/L	<2	<2
1,2-Dibromoethane	µg/L	<1	<1
1,2-Dichlorobenzene	µg/L	<1	<1
1,2-Dichloroethane	µg/L	<0.5	<0.5
1,2-Dichloropropane	µg/L	<1	<1
1,3,5-Trimethylbenzene	µg/L	<1	<1
1,3-Dichlorobenzene	µg/L	<1	<1
1,3-Dichloropropane	µg/L	<0.4	<0.4
1,4-Dichlorobenzene	µg/L	<0.5	<0.5
1-Chlorohexane	µg/L	<1	<1
2,2-Dichloropropane	µg/L	<1	<1
2-Chlorotoluene	µg/L	<1	<1
2-Hexanone	µg/L	<10	<10
4-Chlorotoluene	µg/L	<1	<1
Acetone	µg/L	<10	<10
Benzene	µg/L	<0.4	<0.4
Bromobenzene	µg/L	<1	<1
Bromochloromethane	µg/L	<1	<1
Bromodichloromethane	µg/L	<0.5	<0.5
Bromoform	µg/L	<1	<1
Bromomethane	µg/L	<1	<1
Carbon disulfide	µg/L	0.68 J	<1
Carbon tetrachloride	µg/L	<1	<1
Chlorobenzene	µg/L	<0.5	<0.5
Chloroethane	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
Chloromethane	µg/L	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1
cis-1,3-Dichloropropene	µg/L	<0.5	<0.5
Dibromochloromethane	µg/L	<0.5	<0.5
Dibromomethane	µg/L	<1	<1
Dichlorodifluoromethane	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
Hexachlorobutadiene	µg/L	<0.6	<0.6
Isopropylbenzene	µg/L	<1	<1
m-,p-Xylene	µg/L	<2	<2
MEK (2-Butanone)	µg/L	<10	<10
Methyl t-butyl ether (MTBE)	µg/L	<5	<5
Methylene chloride	µg/L	<1	<1
MIBK (methyl isobutyl ketone)	µg/L	<10	<10
Naphthalene	µg/L	<1	<1
n-Butylbenzene	µg/L	<1	<1
n-Propylbenzene	µg/L	<1	<1
o-Xylene	µg/L	<1	<1
p-Isopropyltoluene	µg/L	<1	<1
sec-Butylbenzene	µg/L	<1	<1
Styrene	µg/L	<1	<1
tert-Butylbenzene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
Toluene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
trans-1,3-Dichloropropene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Trichlorofluoromethane	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

Samples analyzed using method 8260B

µg/L: micrograms per liter

RL: reporting limit

<: Not detected above RL

DQE FLAGS:

J: Concentration estimated

UJ: Not Detected, Estimated

APPENDIX B
DATA QUALITY EVALUATION

DATA QUALITY EVALUATION

Off Depot Long-Term Monitoring (LTM) and Performance Monitoring (PM) were conducted by HDR during three sample events in 2011. Wells were selected for sampling in accordance with the *Long-Term Groundwater Monitoring Plan* (LTM Plan) in Appendix C of the *Off Depot Groundwater Final Remedial Design, Rev. 1* (CH2M HILL, 2008) and the *Work Plan for Off Depot Groundwater Sampling* (HDR|e²M, March 2010). Groundwater samples were submitted to Microbac Laboratories in Marietta, Ohio for analysis. The field and laboratory procedures were performed in accordance with the *Remedial Action Sampling and Analysis Plan, Rev. 0* (RA SAP) (MACTEC, 2005).

The data quality evaluation (DQE) process involves assessment of all field and laboratory procedures, including data validation in accordance with the RA SAP completed by Diane Short and Associates, Inc (DSA). The data validation reports are included in this appendix. This assessment is designed to evaluate problems with the quality assurance (QA)/quality control (QC) associated with the laboratory data and potential impact to the data quality objectives (DQOs). The DQE findings are summarized in the following sections.

FIELD ACTIVITIES AND FIELD QUALITY CONTROL

The field effort included the collection of groundwater samples from designated wells during the biennial LTM event in April 2011 and the semiannual PM events in March-April and September 2011. The LTM well locations are shown on Figure 1 and the PM well locations are shown on Figure 2 of the report. Field QC samples were collected at selected wells to evaluate sampling technique and decontamination procedures. These samples included field duplicates, trip blanks, and field equipment (rinsate) blanks. Additional samples were collected at selected locations for matrix spike/matrix spike duplicate (MS/MSD) analyses in the laboratory. Sample bottles met U.S. Environmental Protection Agency (USEPA) requirements for environmentally clean containers. Sample labels were pre-printed to facilitate sample tracking from the field through the laboratory. Documentation of the sampling was performed in the field to ensure that the samples collected, sample labels, chain-of-custody (COC) records, which were generated electronically using a personal digital assistant (PDA) supplied by the laboratory, and request for analysis were consistent. Where necessary, COC forms were filled out manually. Custody seals were placed on each sample cooler prior to shipment by common carrier.

The majority of samples collected in March 2011 for the biennial LTM event and the first semiannual PM event were stored at the laboratory in a refrigerator that lost power; the sample temperatures rose to approximately 18 °C, above the required 6 °C maximum. All of the LTM samples and some of the PM

samples exceeded the maximum storage temperature; all affected samples were re-collected by HDR at the laboratory's expense in April 2011.

ANALYTICAL METHODS

The groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by method SW 8260B.

LABORATORY QUALITY CONTROL

The laboratory QC program, including sample handling, laboratory control, and reporting, is documented in the RA SAP. Sample handling includes documentation of sample receipt, placement in storage, lab personnel using the sample, and disposal. The laboratory control consists of instrument calibration and maintenance, laboratory control samples (LCS), method blanks and matrix spikes. Reporting of the laboratory control data was planned prior to the collection of the data, allowing the laboratory to place the appropriate information into the data package so that the DQE could be performed in a timely manner.

DQE SUMMARY

The objective of the DQE was to provide a review of the chemical data reports submitted by the laboratory and to assess the data in relation to the data quality objectives stated in the RA SAP. The DQE consisted of review of laboratory QC data and field QC parameters, and flagging of the data as usable, usable with qualification, or unusable in accordance with the DQE standard operating procedures (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 (bias) and Precision (Surrogates, Matrix Spike/Matrix Spike Duplicates (MS/MSD), LCS Recoveries)
- Laboratory Performance Criteria (Blanks, Instrument Performance Check)

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

The DQE was summarized by use of flags that indicate to the reviewer that the data being considered has been qualified using the established criteria. Sample delivery group (SDG) narratives detailing the evaluation of the laboratory data by DSA are included as attachments in this Appendix. The SDGs and associated groundwater samples are listed on Table B-1.

The following sections provide summary discussions of the required data qualifications for each sampling event. A Level III DQE was performed and the data quality indicators (DQIs), expressed in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity, were assessed. This included the evaluation of sample integrity, holding times, trip blanks, rinsate blanks, method blanks, internal standards, surrogate recoveries, matrix spike/matrix spike duplicate (MS/MSD) recoveries, LCSs, and field duplicate precision. The results of the DQI assessment are provided below.

Precision

Field duplicates were collected to assess sampling precision. They consisted of replicate samples collected concurrently with the associated field samples. Precision is best expressed in terms of relative percent difference (RPD). Field precision goals were met for the duplicate sample pairs collected during the three sampling events. Laboratory precision is discussed in more detail in the attached narratives.

Accuracy

Accuracy or bias was measured through the analyses of LCSs and MS/MSDs. Sample specific accuracy is measured through surrogate recovery. Accuracy is expressed as percent recovery (%R).

Although there were a number of low or high LCS recoveries observed in the three events, all associated data are qualified UJ or J and as such are valid. Accuracy goals based upon LCS were met. Further discussion of the LCS and MS/MSD recoveries is provided in the attached DQE narratives.

Representativeness

Representativeness refers to the degree sample data accurately and precisely describes the population of samples at a sampling point or under certain environmental conditions. Samples that are not properly preserved or are analyzed beyond holding times may not be considered representative. Review of sampling procedures, laboratory preparation, analysis holding times, trip blank and rinsate blank analysis help in providing this assessment.

Sampling procedures followed the RA SAP and were considered representative of the matrices collected. Laboratory preparation and analysis followed method guidelines.

Comparability

The selection of standardized methods and consistent laboratory practices facilitates the comparison of data between LTM and PM events. Past LTM and PM data are comparable to recent events. Consistent methodology has been maintained throughout the LTM and PM sampling events.

Completeness

Completeness is determined for both field and analytical objectives. Field completeness is calculated from the number of samples proposed versus the actual number of samples collected. Analytical completeness is expressed in terms of usable data. The project completeness goal for DDMT is 90% as stated in the RA SAP.

Data from the one LTM event in April 2011 and the two PM events in March through April and September 2011 were 100% complete and therefore met the completeness DQO.

Sensitivity

Analytical sensitivity is the concentration at which the measurement system can quantitate target analytes in the environmental matrices of concern. Analytical sensitivity is expressed in terms of the reporting limit (RL), which is provided by the respective laboratories as their reasonable and defensible quantitation limit for environmental samples above the method detection limit (MDL), which is established by each laboratory using pure water or clean matrix. The analytical method RLs and MDLs were compared to groundwater protection standards as listed in the RA QAPP and were determined to meet the overall project objectives. (The MDLs for six VOCs [1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2-dichloroethane, bromodichloromethane, carbon tetrachloride, and dibromochloromethane) were above the standards; however, as noted in the QAPP..."MDLs for these VOC ... compounds are higher than their corresponding screening levels because current VOC ... analytical method technology can not achieve MDLs lower than those listed."]

The following sections discuss only those deficiencies encountered during the evaluation that resulted in qualified and/or unusable data.

Biennial LTM Event – April 2011

A total of 73 water samples including 57 groundwater field samples and 16 QA/QC samples (duplicates, MS/MSD, trip blanks, rinsate blanks) were collected from 57 LTM wells in April 2011. The data are usable with qualifications as described below:

- When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the analyte is detected, the result is qualified as J and data could be biased high proportional to the LCS %R. All results associated with low recoveries are qualified J. Two samples had a low LCS recovery for bromomethane, carbon disulfide and chloromethane, which were non-detect and qualified UJ. Eight samples had a low LCS recovery for naphthalene, which was non-detect and qualified UJ. Sixteen samples had a low LCS recovery for acetone, which was non-detect and qualified UJ. Four samples had a high LCS recovery for acetone, which was detected and qualified J. The analytes with low or high LCS recoveries were not contaminants of concern and will not impact the use of the data.
- There were detections of 1,4-dichlorobenzene, chloroform and acetone observed below the reporting limits in one rinsate blank. Whenever methylene chloride, acetone or 2-butanone is detected in associated samples at a level less than 10x the method blank (corrected for dilution), the result is qualified as B. The factor is 5x for other analytes. 1,4-Dichlorobenzene in 20 samples, chloroform in 11 samples and acetone in four samples were detected and qualified B. Such results are usable but may be biased high.
- Any result reported below the reporting limit (RL) but above the method detection limit (MDL) was flagged “J” and considered an estimated result (unless overridden by other QC flags).

Semi-Annual PM Event – March-April 2011

A total of 48 water samples including 36 groundwater field samples and 12 QA/QC samples (duplicates, MS/MSD and trip blanks) were collected from 36 PM wells in March and April 2011. The samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- Bromomethane and dichlorodifluoromethane were non-detect and qualified as estimated UJ in one sample (MW-70-ODPM-8) based on MS/MSD recovery. Bromomethane and dichlorodifluoromethane are not contaminants of concern and will not impact the use of the data.
- Three samples had a high LCS recovery for acetone, which was detected and qualified J. Four samples had a low LCS recovery for acetone, which was non-detect and qualified UJ. Three samples had a high LCS recovery for acetone, which was detected and qualified J. Acetone is not a contaminant of concern and will not impact the use of the data.
- Any result reported below the reporting limit (RL) but above the method detection limit (MDL) was flagged “J” and considered an estimated result (unless overridden by other QC flags).

Semi-Annual PM Event – September 2011

A total of 47 water samples including 36 groundwater field samples and 11 QA/QC samples (duplicates, MS/MSD, trip blanks and a rinsate blank) were collected from 36 PM wells in September 2011. The samples were analyzed for TCL VOCs. The data are usable with qualifications as described below:

- Twelve samples had a high LCS recovery for acetone, which was detected and qualified J. Acetone is not a contaminant of concern and will not impact the use of the data.
- Any result reported below the reporting limit (RL) but above the method detection limit (MDL) was flagged “J” and considered an estimated result (unless overridden by other QC flags).

SUMMARY

The sample data from the April 2011 Off Depot LTM event and the March-April and September 2011 Off Depot PM events met the data quality objectives and are of sufficient quality to support the evaluation of remedial actions.

TABLE B-1
SDG SUMMARY TABLE
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

SDG	Groundwater Samples			Quality Control Samples
<u>Biennial LTM Sampling Event - April 2011</u>				
L11040914	MW-06-ODLB-3	MW-75-ODLB-3	MW-180-ODLB-3	DUP-2-ODLB-3
	MW-15-ODLB-3	MW-87-ODLB-3	MW-190-ODLB-3	DUP-3-ODLB-3
	MW-31-ODLB-3	MW-132-ODLB-3	MW-221-ODLB-3	TB-1-ODLB-3
	MW-32-ODLB-3	MW-144-ODLB-3	MW-222-ODLB-3	
	MW-44-ODLB-3	MW-145-ODLB-3	MW-223-ODLB-3	
	MW-57-ODLB-3	MW-147-ODLB-3	MW-224-ODLB-3	
	MW-69-ODLB-3	MW-174-ODLB-3	MW-225-ODLB-3	
	MW-71-ODLB-3	MW-176-ODLB-3	MW-226-ODLB-3	
	MW-74-ODLB-3	MW-179-ODLB-3	MW-227-ODLB-3	
L11050034	MW-04-ODLB-3	MW-128-ODLB-3	MW-186-ODLB-3	DUP-1-ODLB-3
	MW-05-ODLB-3	MW-153-ODLB-3	MW-187-ODLB-3	DUP-4-ODLB-3
	MW-13-ODLB-3	MW-169-ODLB-3	MW-228-ODLB-3	DUP-5-ODLB-3
	MW-14-ODLB-3	MW-170-ODLB-3	MW-231-ODLB-3	DUP-6-ODLB-3
	MW-33-ODLB-3	MW-171-ODLB-3	MW-234-ODLB-3	MW-65-ODLB-3-MS
	MW-37-ODLB-3	MW-172-ODLB-3	MW-235-ODLB-3	MW-65-ODLB-3-MSD
	MW-51-ODLB-3	MW-178-ODLB-3	MW-237-ODLB-3	MW-172-ODLB-3-MS
	MW-58-ODLB-3	MW-182-ODLB-3	MW-239-ODLB-3	MW-172-ODLB-3-MSD
	MW-65-ODLB-3	MW-184-ODLB-3	MW-240-ODLB-3	MW-235-ODLB-3-MS
	MW-78-ODLB-3	MW-185-ODLB-3		MW-235-ODLB-3-MSD
				TB-2-ODLB-3
				TB-3-ODLB-3
				LTM-RB1-ODLB-3
L11050038	MW91-ODLB-3			
<u>Semiannual PM Sampling Event - March - April 2011</u>				
L11030971	MW-148-ODPM-8	MW-160-ODPM-8	MW-241-ODPM-8	DUP-1-ODPM-8
	MW-149-ODPM-8	MW-161-ODPM-8	MW-242-ODPM-8	DUP-2-ODPM-8
	MW-150-ODPM-8	MW-162-ODPM-8	MW-243-ODPM-8	DUP-3-ODPM-8
	MW-151-ODPM-8	MW-163-ODPM-8	MW-244-ODPM-8	DUP-4-ODPM-8
	MW-152-ODPM-8	MW-164-ODPM-8	MW-245-ODPM-8	MW-164-ODPM-8-MS
	MW-155-ODPM-8	MW-165-ODPM-8	MW-246-ODPM-8	MW-164-ODPM-8-MSD
	MW-157-ODPM-8	MW-165A-ODPM-8	MW-247-ODPM-8	MW-249-ODPM-8-MS
	MW-158-ODPM-8	MW-166-ODPM-8	MW-248-ODPM-8	MW-249-ODPM-8-MSD
	MW-158A-ODPM-8	MW-166A-ODPM-8	MW-249-ODPM-8	
	MW-159-ODPM-8	MW-232-ODPM-8		
L11040913	MW-54-ODPM-8	MW-76-ODPM-8	MW-79-ODPM-8	DUP-1-ODPM-8
	MW-70-ODPM-8	MW-77-ODPM-8	MW-250-ODPM-8	MW-70-ODPM-8-MS
			MW-251-ODPM-8	MW-70-ODPM-8-MSD
				04/25/11-TB-1-ODPM-8
<u>Semiannual PM Sampling Event - September 2011</u>				
L11090899	MW-54-ODPM-9	MW-158-ODPM-9	MW-232-ODPM-9	DUP-1-ODPM-9
	MW-70-ODPM-9	MW-158A-ODPM-9	MW-241-ODPM-9	DUP-2-ODPM-9
	MW-76-ODPM-9	MW-159-ODPM-9	MW-242-ODPM-9	DUP-3-ODPM-9
	MW-77-ODPM-9	MW-160-ODPM-9	MW-243-ODPM-9	DUP-4-ODPM-9
	MW-79-ODPM-9	MW-161-ODPM-9	MW-244-ODPM-9	MW-164-ODPM-9-MS
	MW-148-ODPM-9	MW-162-ODPM-9	MW-245-ODPM-9	MW-164-ODPM-9-MSD
	MW-149-ODPM-9	MW-163-ODPM-9	MW-246-ODPM-9	MW-247-ODPM-9-MS
	MW-150-ODPM-9	MW-164-ODPM-9	MW-247-ODPM-9	MW-247-ODPM-9-MSD
	MW-151-ODPM-9	MW-165-ODPM-9	MW-248-ODPM-9	TB-1-ODPM-9
	MW-152-ODPM-9	MW-165A-ODPM-9	MW-249-ODPM-9	TB-2-ODPM-9
	MW-155-ODPM-9	MW-166-ODPM-9	MW-250-ODPM-9	RB-ODPM-9
	MW-157-ODPM-9	MW-166A-ODPM-9	MW-251-ODPM-9	

ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDG	L11050034, L11050038, L11040914	
PROJECT	Memphis Defense Depot, ODPM-3 Sampling for HDR, Denver	
LABORATORY	Microbac Laboratories, Inc., Marietta, OH	
SAMPLE MATRIX	Water	SAMPLING DATE 04/2011
NUMBER OF SAMPLES	62, including 3 Trip blanks, 1 rinse blank and 6 field duplicates	
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)	
SAMPLE NUMBER	See result forms attached and associated EDD	

DATA REVIEWER: Diane ShortQA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: _____ 05/26/2011

Telephone Logs included Yes____ No __X__

Contractual Violations Yes____ No __X__

The project QAPP (11/05), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2001, and the SW-846 Method 8260B have been referenced by the reviewer to perform this data validation review. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager. Per the Scope of Work, the review of these samples includes Level III validation of all chains of custody, calibrations and QC forms referencing the QC limits in the above documents.

I. DELIVERABLES

A. All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract.

Yes ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

No qualifiers have been added for Chain of Custody (COC) issues, and the Project Manager will update COC per the following notes to complete the project record.

L11050034: Only page 1 and 4 of 4 of the Chain of Custody documents were signed and dated by the laboratory. These are electronically generated Chain of Custody documents, and there may be electronic signatures which are not currently reviewable. There is no sampler relinquishment signature except on page 4 and the date on page 4 is 4/28/2011 although samples are listed as being collected on 4/28 and 29, 2011. There are sample receipt bar code acknowledgements from the laboratory. However, the hardcopy documents should be properly signed and dated by the laboratory on each page. Only the log in forms contain the courier identification and air bill number.

L11050038: Has a standard chain with acceptable signatures, dates and times. There is no courier or tracking number on the chain, but it is recorded on the laboratory log in forms.

L11040914 is a non-standard chain which has lab receipt tabs on all 3 pages, one field release signature on page 3 with a typed in date and no time. The log-in contains the courier and tracking data.

C. Samples were received at the required temperature, preservation and intact with no bubbles.

Yes ☒ No ☐

EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6 °C. The sample temperature conditions are fully compliant with applicable regulations.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.

Yes ☒ No ☐

L11050034: The laboratory has run sample result forms together for part of the samples. Samples from different work groups are on the same page; therefore, result forms are not separated as usually done into work group (QC qualification) distinctions.

B. Holding Times

1. The contract holding times were met for all analyses [time of sample receipt to time of analysis (VOA) or time of extraction to time of analysis].

Yes ☒ No ☐

2. The Clean Water Act (40 CFR 136) or method holding times were met for all analyses (14 days from time of sample collection to analysis or extraction).

Yes ☒ No ☐

III. INSTRUMENT CALIBRATION – GC/MS

A. Initial Calibration

1. The Response (RF) and Relative Response Factors (RRF) and average RRF for all compounds for all analyses met the contract criteria of > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2001 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors below 0.05 have historically been observed for Acetone, 2-Butanone, and 4-Methyl-2-pentanone. The validation guidance used for this project allows for a response of 0.01 for these compounds if spectral integrity can be verified at low concentrations. These spectra are not commonly provided and are not part of the deliverable for this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of the low-responding compounds are highly water-soluble and capable of hydrogen bonding with water. This decreases their purge efficiency and results in the relatively low response. The implication of this low purge efficiency is that a relatively low absolute recovery of such compounds is achieved in the purge step of the analysis. If this recovery is consistent, reasonable accuracy and precision can be achieved in a given matrix, which is indicated for the lab matrix by acceptable recoveries in LCS and calibration checks. However, this causes these targets to be more sensitive to matrix variations that impact purge efficiency (such as ionic strength or the presence of varying levels of soluble non-target organic material) than are the more hydrophobic compounds typically analyzed by this method, and as a result they are more likely to exhibit matrix bias.

2a. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.

Yes ☒ No ☐ NA ☐

This is a method requirement and indicates that the analytical system is in control.

2b. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for all other compounds, the average % RSD was < 15%, or a linear curve was used.

Yes ☒ No ☐ NA ☐

The initial calibration information is not provided in summary form for instrument 11. The RSD is noted as being acceptable on the instrument check list and in the narrative and one ‘r’ value is reported. The curves are taken to be acceptable.

3. The 12 hour system Performance Check was performed as required in SW-846.

Yes ☒ No ☐ NA ☐

L11050034: An ICV was reported along with the Initial Calibration. Dichlorodifluoromethane was highWG363: 517 (at 37%, 555 (at 32%) and 630 (at 31.7%). All recoveries were high and this compound is not detected. No qualifier is applied for high recovery for non-detects.

L11040914: An ICV was reported along with the Initial Calibration. Dichlorodifluoromethane was highWG363: 194(at 32.1%, 230 (at 31.7%) and 217 (at 26.2%). All recoveries were high and this compound is not detected. No qualifier is applied for high recovery for non-detects.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 25\%$ were met. The 2001 NFG also allow for 40% D for the “poor responders.” For other compounds, the QAPP notes rejection of detected compounds with % D > 40%.

Yes ☐ No ☒ NA ☐

See the table below. When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D biased high

for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here.

Data are qualified "JC#", where # is the % D. There could be variability to the data as there is variability to the response.

The QAPP indicates that compounds in a run should be rejected if the % D is > 40%. We interpret this to mean that non-detects should be rejected and that detected compounds should be "J" qualified, which is the normal validation process for rejection. Professional judgment is that high bias CCVs with a % D greater than 40% should not be rejected for non-detects if the response factors are sufficient to ensure verification of the non-detect. Non-detects with % D values > 40% are qualified "RC#", where # is the % D.

The table below shows the outliers observed in CCVs for this report.

SDG	Batch	Analyte	% D	Bias	Qualifier
L11050034	WG363731	Bromomethane	36	high	None, ND
	WG363517	Acetone	45.7	High	JC46 detects
L11040914	WG36194	Bromomethane	49.8	high	None, ND
	WG363217	Bromomethane	28.5	Low	None ND and RF ok

IV. GC/MS INSTRUMENT PERFORMANCE CHECK

The BFB (VOA) performance check was injected once at the beginning of each 12-hour period and relative abundance criteria for the ions were met.

Yes ☒ No ☐ NA ☐

V. INTERNAL STANDARDS

The Internal Standards met the 100% upper and -50% lower limits criteria, and the Retention times were within the required windows.

Yes ☒ No ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

And met the recovery limits defined in the QAPP of 70 – 130% for VOA water or 75 – 125% for soil samples.

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were analyzed for every analysis performed and for every 20 samples or for every matrix whichever is more frequent.

Yes ☒ No ☐

L11050034: There are three MS/MSD samples associated with the 32 (24 field and 8 QC) client samples.

This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

MS/MSD samples are MW: 172, 29 and 39 ODLB-3.

L11040914: There are no MS/MSD samples associated with the 30 (27 field, 3 QC) client samples. No sample was designated and no extra volume was collected. Insufficient volume is noted by the laboratory. There were

Sufficient MS/MSDs in the L11050034 set to meet the project frequency for non-field QC samples in this event.

B. The MS and MSD percent recoveries were within the limits defined in the QAPP of VOA at 70 – 130% with five compounds allowed to be within 60 – 140%.

Yes ☒ No ☐ NA ☐

The full target list has been spiked.

C. The MSD relative percent differences (RPD) were within the defined contract limits for VOA of 30% water or 40% soil, with five compounds allowed to be > 40% RPD.

Yes ☒ No ☐ NA ☐

Qualifiers are added only when the MS or MSD recovery is also out of limits. Data are qualified “JD#”, where # is the RPD. As the RPD increases, the matrix precision decreases.

D. The MS/MSD were client samples.

Yes ☒ No ☐ NA ☐

Non-client samples were used in 7 of the workgroups or an LCS/LCSD pair was reported. This meets the method criteria and the project frequency was noted above as being met.

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes ☒ No ☐

When there are no client samples run for the MS/MSD and LCS/LCSD pair is run in most cases.

B. The LCS percent recoveries were within the limits defined in the QAPP for VOA of 80 – 120% for water or 75 – 125% for soil. Five compounds are allowed to be 60 – 140%. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified.

Yes ☐ No ☒

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified “JL#”, where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low.

The table below shows the outliers and the limits applied per the QAPP. The limits are specified based on the matrix.

SDG	Batch	Analyte	% Recovery	Bias	Qualifier
L11050034	WG363517	2,2-dichloropropane	121/110	high	None, ND
L11050034	WG363517	Acetone	65/67.1	Low	JL65 all results in WG
L11050034	WG363517	Dichlorodifluoromethane	134/123	High	None, ND
L11050034	WG36517	Trichlorofluoromethane	123/112	High	None, ND
L11050034	WG363517	Vinyl chloride	122/112	High	None, ND
L11050034	WG363555	Dichlorodifluoromethane	127/124	high	None, ND
L11050034	WG363630	Dichlorodifluoromethane	132	high	J detects
L11050034	WG363630	Naphthalene	79.3	Low	JL79
L11050034	WG363627	Acetone	68.3	Low	JL68 all results in WG
L11050034	WG363627	Dichlorodifluoromethane	12	High	None, ND
L11040914	WG363230	Dichlorodifluoromethane	140/143	High	None, ND
L11040914	WG363318	Acetone	122/121	high	JL122 detects
L11040914	WG363630	Chloromethane	121/122	high	None, ND

SDG	Batch	Analyte	% Recovery	Bias	Qualifier
L11040914	WG363630	Dichlorodifluoromethane	7143/145	High	None, ND
L11040914	WG363217	Bromomethane	58.2/ 61.7	Low	JL58 all results in WG
L11040914	WG3636217	Chloromethane	78.7/ 78.2	Low	JL78.2
L11040914	WG3636217	Carbon disulfide	79.2/ 79.1	Low	JL79.2

IX. BLANKS

A. Method Blanks were analyzed at the required frequency and for each matrix and analysis.

Yes ☒ No ☐

B. No blank contamination was found in the Method Blank.

Yes ☐ No ☒

In WG363230, methylene chloride was detected at 0.25 ug/L. There were no detections of the compound and no qualification is applied.

C. If Field Blanks were identified, no blank contamination was found.

Yes ☐ No ☒ NA ☐

When analytes are present in both the Field Blank and the associated samples, the results in the samples are qualified in the same manner as for Method Blanks. For clarity, the qualifiers used in this case are "UTB#" for Trip Blanks or "UFB#" for Rinse Blanks, where # is the associated blank value.

L11050034: The trip blanks 3 and 2 were non-detect. The sample LTM-RB1-ODLB-3 appears to be a rinse blank and it was reported with the following detections:

L110400914: the trip blank was clean.

Compound	Result ug/L	Qualifier
1,4-dichlorobenzene	0.837	URB.837 detects less than 5 x blank
Acetone	2.63	URB2.63, detects less than 10 x blank
Chloroform	0.875	URB.875, detects less than 5 x blank

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of < 30% for water or < 50% for soil. For values reported at < 5 × the reporting limit (RL), a difference of 2 × RL or 3.5 × RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes ☒ No ☐ NA ☐

There are six identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All results were comparable and no qualification is required.

Parent Sample	Field Dup	Observations
L11050034	MW-04-ODLB-3	DUP-1-ODLB-3 OK
	MW-171-ODLB-3	DUP-4-ODLB-3 OK
	MW-185-ODLB-3	DUP5-ODLB-3 OK
	MW-228-ODLB-3	DUP-6-ODLB-3 OK
L11040914	MW-044-ODLB-3	DUP-2-ODLB-3 OK
	MW-176-ODLB-3	DUP-3-ODLB3 OK

XI. SYSTEM PERFORMANCE

A. The RICs, chromatograms, tunes and general system performance were acceptable for all instruments and analytical systems.

Yes _____ No _____ NA X

Not part of this review level.

B. The suggested EQLs for the sample matrices in this set were met.

Yes X No _____ NA _____

XII. TCL COMPOUNDS

A. The identification is accurate and all retention times, library spectra and reconstructed ion chromatograms (RIC) were evaluated for all detected compounds.

Yes _____ No _____ NA X

Not part of this review level.

B. Quantitation was checked to determine the accuracy of calculations for representative compounds in each internal standards quantitation set.

Yes _____ No _____ NA X

Not part of this review level.

XIII. TENTATIVELY IDENTIFIED COMPOUNDS

TICs were properly identified and met the library identification criteria.

Yes _____ No _____ NA X

Not part of this review level.

XIV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested method. Data are fully usable after consideration of qualifiers. The following is noted:

Chain of Custody

No qualifiers have been added for Chain of Custody issues, and the Project Manager will update documentation per the following notes to complete the project record as noted in the text.

Sample Preservation

EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6 °C. The sample temperature conditions are fully compliant with applicable regulations.

Initial and Continuing Calibrations

The initial calibration information is not provided in summary form for instrument 11. The RSD is noted as being acceptable on the instrument check list and in the narrative and one 'r' value is reported. The curves are taken to be acceptable.

L11050034: An ICV was reported along with the Initial Calibration. Dichlorodifluoromethane was highWG363: 517 (at 37%, 555 (at 32%) and 630 (at 31.7%). All recoveries were high and this compound is not detected. No qualifier is applied for high recovery for non-detects.

L11040914: An ICV was reported along with the Initial Calibration. Dichlorodifluoromethane was highWG363: 194(at 32.1%, 230 (at 31.7%) and 217 (at 26.2%). All recoveries were high and this compound is not detected. No qualifier is applied for high recovery for non-detects.

See the table in the text. When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D biased

high for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here.

Only data for acetone in one batch are qualified "JC#", where # is the % D. There could be variability to the data as there is variability to the response.

The QAPP indicates that compounds in a run should be rejected if the % D is > 40%. We interpret this to mean that non-detects should be rejected and that detected compounds should be "J" qualified, which is the normal validation process for rejection. Professional judgment is that high bias CCVs with a % D greater than 40% should not be rejected for non-detects if the response factors are sufficient to ensure verification of the non-detect. Non-detects with % D values > 40% are qualified "RC#", where # is the % D.

Matrix Spikes

L11050034: There are three MS/MSD samples associated with the 32 client samples. All were within acceptance limits. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

MS/MSD samples are MW: 172, 29 and 39 ODLB-3.

L11040914: There are no MS/MSD samples associated with the 30 (27 field, 3 QC) client samples. No sample was designated and no extra volume was collected. Insufficient volume is noted by the laboratory. There were

Sufficient MS/MSDs in the L11050034 set to meet the project frequency for non-field QC samples in this event.

Laboratory Control Samples

See the table within the body of this report. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. Data for acetone in 2 batches were low and naphthalene in one batch was slightly low.

Method Blanks

In WG363230, methylene chloride was detected at 0.25 ug/L. There were no detections of the compound and no qualification is applied.

Field Blanks

When analytes are present in both the Field Blank and the associated samples, the results in the samples are qualified in the same manner as for Method Blanks. For clarity, the qualifiers used in this case are "UTB#" for Trip Blanks or "URB#" for Rinse Blanks, where # is the associated blank value.

L11050034: The trip blanks 3 and 2 were non-detect. The sample LTM-RB1-ODLB-3 appears to be a rinse blank and it was reported with the following detections:

L11040914: The trip blank was clean.

Compound	Result ug/L	Qualifier
1,4-dichlorobenzene	0.837	URB.837 detects less than 5 x blank
Acetone	2.63	URB2.63, detects less than 10 x blank
Chloroform	0.875	URB.875, detects less than 5 x blank

Field QC

There are six identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL. All results were comparable and no qualification is required.

SDG and Parent Sample		Field Dup	Observations
L11050034	MW-04-ODLB-3	DUP-1-ODLB-3	OK
	MW-171-ODLB-3	DUP-4-ODLB-3	OK
	MW-185-ODLB-3	DUP5-ODLB-3	OK
	MW-228-ODLB-3	DUP-6-ODLB-3	OK
L11040914	MW-044-ODLB-3	DUP-2-ODLB-3	OK
	MW-176-ODLB-3	DUP-3-ODLB3	OK

TABLE OF QUALIFIED DATA

Lab ID	Client ID	Compound	Result ug/L	flag	MDL	Qualifier
L11050034-01	TB-2-ODLB-3	Acetone		U	2.5	JL67
L11050034-02	TB-3-ODLB-3	Acetone		U	2.5	JL67
L11050034-03	DUP-1-ODLB-3	1,4-Dichlorobenzene	0.373	F	0.125	URB.837
L11050034-03	DUP-1-ODLB-3	Acetone		U	2.5	JL67
L11050034-03	DUP-1-ODLB-3	Chloroform	0.274	F	0.125	URB.875
L11050034-04	DUP-4-ODLB-3	Acetone		U	2.5	JL67
L11050034-05	DUP-5-ODLB-3	1,4-Dichlorobenzene	0.37	F	0.125	URB.837
L11050034-05	DUP-5-ODLB-3	Acetone		U	2.5	JL67
L11050034-06	DUP-6-ODLB-3	Acetone		U	2.5	JL67
L11050034-06	DUP-6-ODLB-3	Chloroform	0.282	F	0.125	URB.875
L11050034-07	LTM-RB1-ODLB-3	Acetone	2.63	U	2.5	JC46L67
L11050034-08	MW-04-ODLB-3	1,4-Dichlorobenzene	0.393	F	0.125	URB.837
L11050034-08	MW-04-ODLB-3	Acetone		U	2.5	JL67
L11050034-08	MW-04-ODLB-3	Chloroform	0.278	F	0.125	URB.875
L11050034-09	MW-05-ODLB-3	Chloroform	0.428		0.125	URB.875
L11050034-11	MW-13-ODLB-3	1,4-Dichlorobenzene	0.772		0.125	URB.837
L11050034-11	MW-13-ODLB-3	Acetone		U	2.5	JL68
L11050034-11	MW-13-ODLB-3	Chloroform	0.522		0.125	URB.875
L11050034-12	MW-14-ODLB-3	1,4-Dichlorobenzene	0.488	F	0.125	URB.837
L11050034-12	MW-14-ODLB-3	Acetone		U	2.5	JL68
L11050034-13	MW-153-ODLB-3	Acetone		U	2.5	JL68
L11050034-14	MW-169-ODLB-3	1,4-Dichlorobenzene	1.06		0.125	URB.837
L11050034-14	MW-169-ODLB-3	Acetone		U	2.5	JL68
L11050034-15	MW-170-ODLB-3	1,4-Dichlorobenzene	0.597		0.125	URB.837

L11050034-15	MW-170-ODLB-3	Acetone		U	2.5	JL68
L11050034-16	MW-171-ODLB-3	Acetone	2.9	F	2.5	URB2.63
L11050034-16	MW-171-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-17	MW-172-ODLB-3	Chloroform	0.271	F	0.125	URB.875
L11050034-17	MW-172-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-20	MW-178-ODLB-3	1,4-Dichlorobenzene	0.129	F	0.125	URB.837
L11050034-20	MW-178-ODLB-3	Chloroform	1.43		0.125	URB.875
L11050034-20	MW-178-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-21	MW-182-ODLB-3	1,4-Dichlorobenzene	0.433	F	0.125	URB.837
L11050034-21	MW-182-ODLB-3	Acetone	3.45	F	2.5	URB2.63
L11050034-22	MW-184-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-23	MW-185-ODLB-3	1,4-Dichlorobenzene	0.367	F	0.125	URB.837
L11050034-23	MW-185-ODLB-3	Acetone	2.75	F	2.5	URB2.63
L11050034-23	MW-185-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-24	MW-186-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-25	MW-187-ODLB-3	1,4-Dichlorobenzene	0.386	F	0.125	URB.837
L11050034-25	MW-187-ODLB-3	Chloroform	0.265	F	0.125	URB.875
L11050034-25	MW-187-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-26	MW-228-ODLB-3	Acetone		U	2.5	JL68
L11050034-26	MW-228-ODLB-3	Chloroform	0.299	F	0.125	URB.875
L11050034-27	MW-231-ODLB-3	1,4-Dichlorobenzene	0.35	F	0.125	URB.837
L11050034-27	MW-231-ODLB-3	Naphthalene		U	0.2	JL79
L11050034-28	MW-234-ODLB-3	1,4-Dichlorobenzene	1.16		0.125	URB.837
L11050034-28	MW-234-ODLB-3	Acetone		U	2.5	JL68
L11050034-29	MW-235-ODLB-3	1,4-Dichlorobenzene	0.567	M	0.125	URB.837
L11050034-29	MW-235-ODLB-3	Acetone		M	2.5	JL68
L11050034-32	MW-237-ODLB-3	1,4-Dichlorobenzene	0.608		0.125	URB.837
L11050034-32	MW-237-ODLB-3	Acetone		U	2.5	JL68
L11050034-32	MW-237-ODLB-3	Chloroform	0.164	F	0.125	URB.875
L11050034-33	MW-239-ODLB-3	1,4-Dichlorobenzene	0.675		0.125	URB.837
L11050034-33	MW-239-ODLB-3	Acetone		U	2.5	JL68
L11050034-33	MW-239-ODLB-3	Chloroform	0.24	F	0.125	URB.875
L11050034-34	MW-240-ODLB-3	1,4-Dichlorobenzene	0.772		0.125	URB.837
L11050034-34	MW-240-ODLB-3	Acetone		U	2.5	JL68
L11050034-34	MW-240-ODLB-3	Chloroform	0.227	F	0.125	URB.875
L11050034-35	MW-33-ODLB-3	1,4-Dichlorobenzene	0.327	F	0.125	URB.837
L11050034-35	MW-33-ODLB-3	Acetone		U	2.5	JL68
L11050034-35	MW-33-ODLB-3	Chloroform	0.517		0.125	URB.875
L11050034-36	MW-37-ODLB-3	1,4-Dichlorobenzene	0.61		0.125	URB.837
L11050034-36	MW-37-ODLB-3	Acetone		U	2.5	JL68
L11050034-37	MW-51-ODLB-3	1,4-Dichlorobenzene	0.134	F	0.125	URB.837
L11050034-37	MW-51-ODLB-3	Acetone		U	2.5	JL68

L11050034-38	MW-58-ODLB-3	Acetone		U	2.5	JL68
L11050034-39	MW-65-ODLB-3	1,4-Dichlorobenzene	0.719		0.125	URB.837
L11050034-39	MW-65-ODLB-3	Acetone	3.33	F	2.5	URB2.63
L11050034-42	MW-78-ODLB-3	1,4-Dichlorobenzene	0.506		0.125	URB.837
L11040914-03	DUP-3-ODLB-3	Bromomethane		U	0.5	JL58
L11040914-03	DUP-3-ODLB-3	Carbon disulfide		U	0.5	JL79.2
L11040914-03	DUP-3-ODLB-3	Chloromethane		U	0.5	JL78.2
L11040914-04	MW-06-ODLB-3	Bromomethane		U	0.5	JL58
L11040914-04	MW-06-ODLB-3	Carbon disulfide		U	0.5	JL79.2
L11040914-04	MW-06-ODLB-3	Chloromethane		U	0.5	JL78.2
L11040914-05	MW-132-ODLB-3	Bromomethane		U	0.5	JL58
L11040914-05	MW-132-ODLB-3	Carbon disulfide		U	0.5	JL79.2
L11040914-05	MW-132-ODLB-3	Chloromethane		U	0.5	JL78.2
L11040914-06	MW-144-ODLB-3	Acetone	2.64	F	2.5	JL122
L11040914-07	MW-145-ODLB-3	Acetone	2.64	F	2.5	JL122
L11040914-14	MW-190-ODLB-3	Acetone	3.29	F	2.5	JL122
L11040914-16	MW-222-ODLB-3	Acetone	4.64	F	2.5	JL122

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
Off-Depot PM/LTM
Sampling Event: ODLB-3
Project / Task Number: 121842-003
Sample Data Package(s): L11040914, L11050034, L11050038
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The data validation report was acceptable. The report noted 62 samples, but there were 63 samples; the validator miscounted. The validator had all sample results available for validation.

Final Data Qualifiers

Final qualifiers for detected acetone results with LCS recoveries above control limits were J where DSA had qualified as JL122. Final qualifiers for undetected results for acetone, bromomethane, carbon disulfide, chloromethane and naphthalene with LCS recoveries below control limits were UJ where DSA had qualified as JL67, JL68, JL58, JL79.2, JL78.2 or JL79.

Final qualifier for a detected acetone result with a CCV %D of 46% and an LCS recovery below control limits was J where DSA had qualified as JC46L67.

Final qualifiers for detected acetone, chloroform and 1,4-dichlorobenzene results with detections in the equipment rinsate blank were B where DSA had qualified as URB2.63, URB.875 or URB.837.

Final qualifiers were J where detected results were between the MDL and RL.

Data Usability

There were no rejected sample results. All results are usable as qualified.



09 January 2012

Lynn K. Lutz, HDR Inc.

Date

ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDG	L11030971, L11040913		
PROJECT	Memphis Defense Depot, ODPM-8 Sampling for HDR, Denver		
LABORATORY	Microbac Laboratories, Inc., Marietta, OH		
SAMPLE MATRIX	Water	SAMPLING DATE	03, 04/2011
NUMBER OF SAMPLES	42, including 5 field duplicates		
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)		
SAMPLE NUMBER	See result forms attached and associated EDD		

DATA REVIEWER: Becky Nichols, Diane ShortQA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: _____ 06/02/2011

Telephone Logs included Yes____ No __X__

Contractual Violations Yes____ No __X__

The project QAPP (11/05), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2001, and the SW-846 Method 8260B have been referenced by the reviewer to perform this data validation review. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager. Per the Scope of Work, the review of these samples includes Level III validation of all chains of custody, calibrations and QC forms referencing the QC limits in the above documents.

I. DELIVERABLES

A. All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract.

Yes ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

No qualifiers have been added for Chain of Custody (COC) issues, and the Project Manager will update COC per the following notes to complete the project record.

L11030971: Only the first page of the Chain of Custody documents were signed and dated by the laboratory.

L11040913: The laboratory has signed and affixed a receipt label on both pages. Only page 2 has a date of collection and a sampler signature. There is no formal relinquishment date or time.

These are electronically generated Chain of Custody documents, and there may be electronic signatures which are not currently reviewable. In addition, there are sample receipt acknowledgements from the laboratory.

However, the hardcopy documents should be properly signed and dated by the laboratory on each page. The log in forms contain the courier identification and air bill number.

C. Samples were received at the required temperature, preservation and intact with no bubbles.

Yes ☒ No ☐

EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6 °C. The sample temperature conditions are fully compliant with applicable regulations.

L11030971: Per the laboratory, samples 38, 39, 40, 41, 42, 43, 44 and 45 were stored in a refrigerator that experienced a temperature violation during the weekend. The client was notified, and the samples are being repeated, therefore these results were not reviewed.

L11040913: This data set contains the noted re-sampled data.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.

Yes ☒ No ☐

B. Holding Times

1. The contract holding times were met for all analyses [time of sample receipt to time of analysis (VOA) or time of extraction to time of analysis].

Yes ☒ No ☐

2. The Clean Water Act (40 CFR 136) or method holding times were met for all analyses (14 days from time of sample collection to analysis or extraction).

Yes ☒ No ☐

III. INSTRUMENT CALIBRATION – GC/MS

A. Initial Calibration

1. The Response (RF) and Relative Response Factors (RRF) and average RRF for all compounds for all analyses met the contract criteria of > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2001 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors below 0.05 have historically been observed for Acetone, 2-Butanone, and 4-Methyl-2-pentanone. The validation guidance used for this project allows for a

response of 0.01 for these compounds if spectral integrity can be verified at low concentrations. These spectra are not commonly provided and are not part of the deliverable for this data set. The laboratory has been tasked with providing to the client verification that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of the low-responding compounds are highly water-soluble and capable of hydrogen bonding with water. This decreases their purge efficiency and results in the relatively low response. The implication of this low purge efficiency is that a relatively low absolute recovery of such compounds is achieved in the purge step of the analysis. If this recovery is consistent, reasonable accuracy and precision can be achieved in a given matrix, which is indicated for the lab matrix by acceptable recoveries in LCS and calibration checks. However, this causes these targets to be more sensitive to matrix variations that impact purge efficiency (such as ionic strength or the presence of varying levels of soluble non-target organic material) than are the more hydrophobic compounds typically analyzed by this method, and as a result they are more likely to exhibit matrix bias.

2a. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.
Yes ☒ No ☐ NA ☐

This is a method requirement and indicates that the analytical system is in control.

L11030971: Instrument 8 (3/28/11) did not contain any summary data for the %RSD or RFs. The RFs were derived from the full standard print out and from the ICV. There were correlation coefficients which are assumed to be for % RSD > 15%. The narrative and Calibration check lists do not note any outliers and no further action is taken.

L11040913: Instrument 6 (4/18/11) did not contain any summary data for the %RSD or RFs. The RFs were derived from the full standard print out and from the ICV. There were correlation coefficients which are assumed to be for % RSD > 15%. The narrative and Calibration check lists do not note any outliers and no further action is taken.

2b. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for all other compounds, the average % RSD was < 15%, or a linear curve was used.

Yes ☒ No ☐ NA ☐

L11030971: See note above

L11040913: See note above.

3. The 12 hour system Performance Check was performed as required in SW-846 and met the QC limits of 70 – 130%.

Yes ☐ No ☒ NA ☐

L11040913: WG363194 reported dichlorodifluoromethane at +32.1%; WG 363194 at 37.6% and WG 363318 at 31.7%. All were high bias. No detects are reported and no qualifier is required.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 25\%$ were met. The 2001 NFG also allow for 40% D for the “poor responders.” For other compounds, the QAPP notes rejection of detected compounds with % D > 40%.

Yes ☐ No ☒ NA ☐

See the table below. When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D biased high for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here.

Data are qualified "JC#", where # is the % D. There could be variability to the data as there is variability to the response.

The QAPP indicates that compounds in a run should be rejected if the % D is > 40%. We interpret this to mean that non-detects should be rejected and that detected compounds should be "J" qualified, which is the normal validation process for rejection. Professional judgment is that high bias CCVs with a % D greater than 40% should not be rejected for non-detects if the response factors are sufficient to ensure verification of the non-detect. Non-detects with % D values > 40% (low bias) are qualified "RC#", where # is the % D.

The table below shows the outliers observed in CCVs for this report.

SDG	Batch	Analyte	% D	Bias	Qualifier
L11030971	WG360640	Bromomethane	33.5	high	None, ND
L11040913	WG363194	Bromomethane	49.8	High	None, ND
	WG363211	Acetone	53.8	High	None, ND

IV. GC/MS INSTRUMENT PERFORMANCE CHECK

The BFB (VOA) performance check was injected once at the beginning of each 12-hour period and relative abundance criteria for the ions were met.

Yes ☒ No ☐ NA ☐

V. INTERNAL STANDARDS

The Internal Standards met the 100% upper and -50% lower limits criteria, and the Retention times were within the required windows.

Yes ☒ No ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

And met the recovery limits defined in the QAPP of 70 – 130% for VOA water or 75 – 125% for soil samples.

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were analyzed for every analysis performed and for every 20 samples or for every matrix whichever is more frequent.

Yes ☒ No ☐

There are five MS/MSD samples associated with the 42 non-QC client samples. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

B. The MS and MSD percent recoveries were within the limits defined in the QAPP of VOA at 70 – 130% with five compounds allowed to be within 60 – 140%.

Yes ☐ No ☒ NA ☐

The full target list has been spiked.

L11040913: For MW-70-ODPM-8, bromomethane was reported at 58.7 and 70.8%; dichlorodifluoromethane at 66 and 70.4%. Data have been qualified JMS#, where # is the lowest recovery. Data could be biased low proportional to the recovery.

C. The MSD relative percent differences (RPD) were within the defined contract limits for VOA of 30% water or 40% soil, with five compounds allowed to be > 40% RPD.

Yes ☒ No ☐ NA ☐

Qualifiers are added only when the MS or MSD recovery is also out of limits. Data are qualified "JD#", where # is the RPD. As the RPD increases, the matrix precision decreases.

D. The MS/MSD were client samples.

Yes ☒ No ☐ NA ☐

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes ☒ No ☐

B. The LCS percent recoveries were within the limits defined in the QAPP for VOA of 80 – 120% for water or 75 – 125% for soil. Five compounds are allowed to be 60 – 140%. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified.

Yes ☐ No ☒

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low.

The table below shows the outliers and the limits applied per the QAPP. The limits are specified based on the matrix. Per the allowance for 5 compounds to be out, all qualifiers could be removed.

SDG	Batch	Analyte	% Recovery	Bias	Qualifier
L11030971	WG360640	Bromomethane	123	high	None, ND
L11040913	WG363211	Dichlorodifluoromethane	133	High	None, ND
	WG363211	Acetone	71.5	low	JL71.5
L11040913	WG363318	Chloroethane	121/122	High	None, ND
	WG363118	Acetone	122/121	High	JL122 detects
	WG363118	Dichlorodifluoromethane	143/ 145	High	None, ND

IX. BLANKS

A. Method Blanks were analyzed at the required frequency and for each matrix and analysis.

Yes ☒ No ☐

B. No blank contamination was found in the Method Blank.

Yes ☐ No ☒

Methylene chloride was detected in one of the Method Blanks. Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than $10 \times$ the Method Blank (corrected for dilution), data are qualified "UMB#", where # is the corrected Method Blank level. Results are usable as non-detect.

SDG	Batch	Analyte	Concentration	Qualifier
L11030971	WG360650	Methylene Chloride	2.71	None, ND

C. If Field Blanks were identified, no blank contamination was found.

Yes ☐ No ☐ NA ☒

When analytes are present in both the Field Blank and the associated samples, the results in the samples are qualified in the same manner as for Method Blanks. For clarity, the qualifiers used in this case are “UTB#” for Trip Blanks or “UFB#” for Rinse Blanks, where # is the associated blank value.

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of < 30% for water or < 50% for soil. For values reported at < 5 × the reporting limit (RL), a difference of 2 × RL or 3.5 × RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes _____ No X NA _____

There are five identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL.

SDG	Parent Sample	Field Dup	Observations
L11030971	MW-54-ODPM-8	DUP-1-ODPM-8	OK
	MW-155-ODPM-8	DUP-2-ODPM-8	OK
	MW-165-ODPM-8	DUP-3-ODPM-8	Several RPD values were outside the limit. 1,1,2,2-Tetrachloroethane (JFD14) and Trichloroethene (JFD10).
	MW-247-ODPM-8	DUP-4-ODPM-8	One RPD value was outside the limit, but would not require qualification based on the CRDL Rule.
L11040913	MW-54-ODPM-8	DUP-1-ODPM-8	OK

XI. SYSTEM PERFORMANCE

A. The RICs, chromatograms, tunes and general system performance were acceptable for all instruments and analytical systems.

Yes _____ No _____ NA X

Not part of this review level.

B. The suggested EQLs for the sample matrices in this set were met.

Yes X No _____ NA _____

XII. TCL COMPOUNDS

A. The identification is accurate and all retention times, library spectra and reconstructed ion chromatograms (RIC) were evaluated for all detected compounds.

Yes _____ No _____ NA X

Not part of this review level.

B. Quantitation was checked to determine the accuracy of calculations for representative compounds in each internal standards quantitation set.

Yes _____ No _____ NA X

Not part of this review level.

XIII. TENTATIVELY IDENTIFIED COMPOUNDS

TICs were properly identified and met the library identification criteria.

Yes _____ No _____ NA X

Not part of this review level.

XIV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested method. Data are fully usable after consideration of qualifiers. The following is noted:

Chain of Custody

No qualifiers have been added for Chain of Custody issues, and the Project Manager will update documentation per the notes in the text to complete the project record.

Sample Preservation

EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6 °C. The sample temperature conditions are fully compliant with applicable regulations.

L11030971: Per the laboratory, samples 38, 39, 40, 41, 42, 43, 44 and 45 were stored in a refrigerator that experienced a temperature violation during the weekend. The client was notified, and the samples are being repeated, therefore these results were not reviewed.

L11040913: This data set contains the noted re-sampled data.

Initial Calibrations

L11030971: Instrument 8 (3/28/11) did not contain any summary data for the %RSD or RFs. The RFs were derived from the full standard print out and from the ICV. There were correlation coefficients which are assumed to be for % RSD > 15%. The narrative and Calibration check lists do not note any outliers and no further action is taken.

L11040913: Instrument 6 (4/18/11) did not contain any summary data for the %RSD or RFs. The RFs were derived from the full standard print out and from the ICV. There were correlation coefficients which are assumed to be for % RSD > 15%. The narrative and Calibration check lists do not note any outliers and no further action is taken.

ICV

L11040913: WG363194 reported dichlorodifluoromethane at +32.1%; WG 363194 at 37.6% and WG 363318 at 31.7%. All were high bias. No detects are reported and no qualifier is required.

Continuing Calibrations

See the table within the body of this report. No data have been qualified as all %D recoveries are high and data are non-detect. No qualification is required for high bias when the response factor is acceptable to verify the non-detect as is the case here.

Matrix Spikes

There are five MS/MSD samples associated with the 42 non-QC client samples.

L11040913: For MW-70-ODPM-8, bromomethane was reported at 58.7 and 70.8%; dichlorodifluoromethane at 66 and 70.4%. Data have been qualified JMS#, where # is the lowest recovery. Data could be biased low proportional to the recovery.

Laboratory Control Samples

See the table within the body of this report. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low.

Data for acetone have been qualified in 2 work groups.

Method Blanks

See the table within the body of this report. Methylene chloride was detected in one of the Method Blanks. Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than 10 × the Method Blank (corrected for dilution), data are qualified "UMB#", where # is the corrected Method Blank level. Results are usable as non-detect.

Field QC

There are five identified Field Duplicates. See the table within the body of this report. If data were qualified they would be J, FD#, where # is the difference between the two values.

SDG	Parent Sample	Field Dup	Observations
L11030971	MW-54-ODPM-8	DUP-1-ODPM-8	OK
	MW-155-ODPM-8	DUP-2-ODPM-8	OK
	MW-165-ODPM-8	DUP-3-ODPM-8	Several RPD values were outside the limit. 1,1,2,2-Tetrachloroethane (JFD14) and Trichloroethene (JFD10).
	MW-247-ODPM-8	DUP-4-ODPM-8	One RPD value was outside the limit, but would not require qualification based on the CRDL Rule.
L11040913	MW-54-ODPM-8	DUP-1-ODPM-8	OK

TABLE OF QUALIFIED DATA

Lab ID	Client ID	Compound	Result ug/L	MDL	Qualifier
L11040913-03	MW-250-ODPM-8	Acetone	19.9	2.5	JL122
L11040913-04	MW-251-ODPM-8	Acetone	17.7	2.5	JL122
L11040913-05	MW-54-ODPM-8	Acetone	19.4	2.5	JL122
L11040913-06	MW-70-ODPM-8	Acetone	U	2.5	JL71.5
L11040913-06	MW-70-ODPM-8	Bromomethane	U	0.5	JMS58.7
L11040913-06	MW-70-ODPM-8	Dichlorodifluoromethane	U	0.25	JMS66
L11040913-09	MW-76-ODPM-8	Acetone	U	2.5	JL71.5
L11040913-10	MW-77-ODPM-8	Acetone	U	2.5	JL71.5
L11040913-11	MW-79-ODPM-8	Acetone	U	2.5	JL71.5

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
Off-Depot PM/LTM
Sampling Event: ODPM-8
Project / Task Number: 121842-003
Sample Data Package(s): L11030971, L11040913
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The data validation report was acceptable. The report noted there were 42 samples including five field duplicates, but there were 42 samples including five field duplicates and one trip blank; the validator miscounted. The validator had all sample results available for validation.

Final Data Qualifiers

Final qualifiers for detected acetone results with LCS recoveries above control limits were J where DSA had qualified as JL122. Final qualifiers for undetected acetone results with LCS recoveries below control limits were UJ where DSA had qualified as JL71.5.

Final qualifiers for undetected bromomethane and dichlorodifluoromethane results with MS/MSD recoveries below control limits were UJ where DSA had qualified as JMS58.7 or JMS66.

Final qualifiers were J where detected results were between the MDL and RL.

Data Usability

There were no rejected sample results. All results are usable as qualified.



09 January 2012

Lynn K. Lutz, HDR Inc.

Date

DIANE SHORT & ASSOCIATES, INC. _____

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ORGANIC DATA QUALITY REVIEW REPORT

Volatile Organics by SW-846 Method 8260B (GC/MS)

SDG	L11090899		
PROJECT	Memphis Defense Depot, ODPM-9 Sampling for HDR, Denver		
LABORATORY	Microbac Laboratories, Inc., Marietta, OH		
SAMPLE MATRIX	Water	SAMPLING DATE	09/2011
NUMBER OF SAMPLES	47, including 4 field duplicates, 2 trip blanks and 1 rinse blank		
ANALYSES REQUESTED	SW-846 8260B (VOA by GC/MS)		
SAMPLE NUMBER	See result forms attached and associated EDD		

DATA REVIEWER: Diane Short

QA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: DLS 10/31/2011 update

Telephone Logs included Yes____ No X

Contractual Violations Yes____ No X

The project QAPP (09/11), the EPA Contract Laboratory Program National Functional Guidelines for Organic Review, 1999 and 2001, and the SW-846 Method 8260B have been referenced by the reviewer to perform this data validation review. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager. Per the Scope of Work, the review of these samples includes Level III validation of all chains of custody, calibrations and QC forms referencing the QC limits in the above documents.

I. DELIVERABLES

A. All deliverables were present as specified in the Statement of Work (SOW), SW-846, or in the project contract.

Yes ☒ No ☐

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. Note that there are 8 QC sets (days of analysis per instrument) and 3 instruments for the 47 samples.

The 2011 QAPP has been used for all review with the exception of the CCAL limits where the 25% NFG limits were applied as Method 8026B was used, not 8260C or the CLP method. Final application of these limits is being considered by project management.

B. Chain of Custody documentation was complete and accurate.

Yes ☒ No ☐

No qualifiers have been added for Chain of Custody (COC) issues, and the Project Manager will update COC per the following notes to complete the project record.

Only the 1st and 3rd page of the Chain of Custody documents were signed and dated by the sampler. The laboratory has signed and affixed a receipt label on all pages. The relinquishment date and time are part of the electronically-generated COC.

These are electronically generated Chain of Custody documents, and there may be electronic signatures which are not currently reviewable. In addition, there are sample receipt acknowledgements from the laboratory.

However, the hardcopy documents should be properly signed and dated by the laboratory on each page. The log in forms contain the courier identification and air bill number.

C. Samples were received at the required temperature, preservation and intact with no bubbles.

Yes ☒ No ☐

EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6 °C. The sample temperature conditions are fully compliant with applicable regulations.

II. ANALYTICAL REPORT FORMS

A. The Analytical Report or Data Sheets are present and complete for all requested analyses.

Yes ☒ No ☐

B. Holding Times

1. The contract holding times were met for all analyses [time of sample receipt to time of analysis (VOA) or time of extraction to time of analysis].

Yes ☒ No ☐

2. The Clean Water Act (40 CFR 136) or method holding times were met for all analyses (14 days from time of sample collection to analysis or extraction).

Yes ☒ No ☐

III. INSTRUMENT CALIBRATION – GC/MS

A. Initial Calibration

1. The Response (RF) and Relative Response Factors (RRF) and average RRF for all compounds for all analyses met the contract criteria of > 0.05 or > 0.01 for poor responding volatiles.

Yes ☒ No ☐ NA ☐

Method 8260: Per the Project Manager, the 2001 EPA CLP validation guidance has been applied to the common “poor responders.” Calibration response factors below 0.05 have historically been observed for Acetone. The validation guidance used for this project allows for a response of 0.01 for these compounds if spectral integrity can be verified at low concentrations. These spectra are not commonly provided and are not part of the deliverable for this data set. The laboratory has been tasked with providing to the client verification

that the 0.01 RF is valid. If the spectral verification is available, data are not qualified for response factors greater than 0.01 and less than 0.05 for “poor responders.” No data have been qualified.

Most of the low-responding compounds are highly water-soluble and capable of hydrogen bonding with water. This decreases their purge efficiency and results in the relatively low response. The implication of this low purge efficiency is that a relatively low absolute recovery of such compounds is achieved in the purge step of the analysis. If this recovery is consistent, reasonable accuracy and precision can be achieved in a given matrix, which is indicated for the lab matrix by acceptable recoveries in LCS and calibration checks. However, this causes these targets to be more sensitive to matrix variations that impact purge efficiency (such as ionic strength or the presence of varying levels of soluble non-target organic material) than are the more hydrophobic compounds typically analyzed by this method, and as a result they are more likely to exhibit matrix bias.

2a. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for the CCCs.

Yes ☒ No ☐ NA ☐

This is a method requirement and indicates that the analytical system is in control.

2b. The relative standard deviation (RSD) for the five point calibration was within the 30% limit for all other compounds, the average % RSD was < 15%, or a linear curve was used.

Yes ☒ No ☐ NA ☐

3. The 12 hour system Performance Check was performed as required in SW-846 and met the QC limits of 80 – 120%.

Yes ☐ No ☒ NA ☐

Dichlorodifluoromethane is high in the 10/3/11 ICV for Instrument 8. It is also high in the LCS's for that instrument. The compound is not detected in client samples and no qualification is required.

B. Continuing Calibrations

1. The midpoint standard was analyzed for each analysis at the required frequency, and the QC criterion of > 0.05 (> 0.01 for CLP 2001 VOA) was met.

Yes ☒ No ☐ NA ☐

2. The percent difference (% D) limits of $\pm 25\%$ were met. The 2001 NFG also allow for 40% D for the “poor responders.” For other compounds, the QAPP notes rejection of detected compounds with % D > 40%.

Yes ☐ No ☒ NA ☐

See the table below. When there are no detections, no qualification is required unless the % D is biased low and so large as to indicate a significant probability of false negatives. Qualification is required for a % D biased high for detected compounds only. This requires that the RF is acceptable to verify the non-detect status, which is the case here.

Data would be qualified “JC#”, where # is the % D. There could be variability to the data as there is variability to the response. No qualifiers have been required.

The QAPP indicates that compounds in a run should be rejected if the % D is > 40%. We interpret this to mean that non-detects should be rejected and that detected compounds should be “J” qualified, which is the normal validation process for rejection. Professional judgment is that high bias CCVs with a % D greater than 40% should not be rejected for non-detects if the response factors are sufficient to ensure verification of the non-detect. Non-detects with % D values > 40% (low bias) are qualified “RC#”, where # is the % D.

The table below shows the outliers observed in CCVs for this report.

SDG	Batch	Analyte	% D	Bias	Qualifier
L11090899	WG377969	Hexachlorobutadiene	30.1	high	None, ND

SDG	Batch	Analyte	% D	Bias	Qualifier
	WG378381	Chloromethane	28.1	High	None, ND and also a poor responder

IV. GC/MS INSTRUMENT PERFORMANCE CHECK

The BFB (VOA) performance check was injected once at the beginning of each 12-hour period and relative abundance criteria for the ions were met.

Yes ☒ No ☐ NA ☐

V. INTERNAL STANDARDS

The Internal Standards met the 100% upper and -50% lower limits criteria, and the Retention times were within the required windows.

Yes ☒ No ☐ NA ☐

VI. SURROGATE STANDARDS

Surrogate spikes were analyzed with every sample.

Yes ☒ No ☐

And met the recovery limits defined in the QAPP , which are the laboratory limits.

Yes ☒ No ☐

VII. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were analyzed for every analysis performed and for every 20 samples or for every matrix whichever is more frequent.

Yes ☒ No ☐

There are two MS/MSD samples associated with the 40 non-QC client samples: MW-164-ODPM-9 and MW-247-ODPM-9. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

B. The MS and MSD percent recoveries were within the limits defined in the updated 2011 QAPP, which now references the laboratory limits.

Yes ☐ No ☒ NA ☐

The full target list has been spiked.

For MW-247-ODPM-9, MTBE was reported at 125/ 132% (limit 123%); MIBK at 122/ 135% (limit 134%); acetone at 132/136% (limit 135%). For MW-164-ODPM-9, MTBE was reported at 122 and 128% (limit 123%). No data have been qualified JMS#, where # is the lowest recovery as all associated samples were non-detect for these compounds and there is no qualification for high bias.

C. The MSD relative percent differences (RPD) were within the defined contract limits, which are 30%.

Yes ☒ No ☐ NA ☐

Qualifiers are added only when the MS or MSD recovery is also out of limits or the RPD exceeds 30%. Data are qualified "JD#", where # is the RPD. As the RPD increases, the matrix precision decreases. All RPD limits are met.

D. The MS/MSD were client samples.

Yes ☒ No ☐ NA ☐

VIII. LABORATORY CONTROL SAMPLE

A. Laboratory Control Sample (LCS) was analyzed for every analysis performed and for every 20 samples.

Yes ☒ No ☐

B. The LCS percent recoveries were within the limits defined in the updated 2011 QAPP, which are the laboratory limits. If an LCS and LCSD are analyzed, both samples must have the same compounds out for data to be qualified.

Yes ____ No X

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. There were a number of high recoveries on Instruments 6 and 8. Only acetone has been qualified for high bias. The laboratory uses the same control limits on all 3 instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific.

Laboratory Control Sample Recovery								
Instrument	6	6	6	8	8	8	8	11
WG: 37:	7875	7967	8381	7879	8245	7963	8088	7969
date	4-Oct	5-Oct	8-Oct	4-Oct	7-Oct	5-Oct	5-Oct	5-Oct
Compound								
1,1-Dichloropropene					133/125			
1,2,3-Trichloropropane		126						
Acetone	139	147	132/139	135/138	134/136		140	
Bromodichloromethane					122/ ok			
Chloromethane			128/134		138/126			
Dibromomethane					127/122			
Dichlorodifluoromethane					156/141			
Methyl t-butyl ether (MTBE)	125	130	123/124	125/125		129	129	
Vinyl chloride					124/135			

The table below shows data that were qualified for the LCS outliers .

Lab ID	Client ID	Compound	Result ug/L	Work Group	MDL	DVAL
L11090899-01	MW-70-ODPM-9	Acetone	4.05	WG377875	2.5	JL139
L11090899-02	MW-76-ODPM-9	Acetone	2.85	WG377875	2.5	JL139
L11090899-03	MW-77-ODPM-9	Acetone	4.96	WG377875	2.5	JL139
L11090899-04	MW-79-ODPM-9	Acetone	4.86	WG377875	2.5	JL139
L11090899-10	MW-159-ODPM-9	Acetone	20.1	WG378088	2.5	JL140
L11090899-14	MW-163-ODPM-9	Acetone	3.86	WG378088	2.5	JL140
L11090899-15	MW-164-ODPM-9	Acetone	4.14	WG377967	2.5	JL147
L11090899-18	MW-165-ODPM-9	Acetone	3.13	WG377967	2.5	JL147
L11090899-19	MW-165A-ODPM-9	Acetone	3.56	WG377967	2.5	JL147
L11090899-20	MW-166-ODPM-9	Acetone	6.51	WG377967	2.5	JL147
L11090899-29	MW-249-ODPM-9	Acetone	2.86	WG377967	2.5	JL147
L11090899-30	MW-250-ODPM-9	Acetone	3.92	WG378088	2.5	JL140
L11090899-31	RB-ODPM-9	Acetone	3.83	WG378088	2.5	JL140
L11090899-32	DUP-1-ODPM-9	Acetone	5.63	WG378088	2.5	JL140

L11090899-34	DUP-3-ODPM-9	Acetone	18.9	WG378088	2.5	JL140
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IX. BLANKS

A. Method Blanks were analyzed at the required frequency and for each matrix and analysis.

Yes ☒ No ☐

B. No blank contamination was found in the Method Blank.

Yes ☒ No ☐

Whenever Methylene Chloride, Acetone, 2-Butanone are detected in associated samples at a level less than 10 × the Method Blank (corrected for dilution), data are qualified "BMB#", where # is the corrected Method Blank level. Results are usable as non-detect.

C. If Field Blanks were identified, no blank contamination was found.

Yes ☐ No ☒ NA ☐

The field blank is RB-ODPM-9, which is associated only with MW-160-ODPM-9. The sample was clean and no qualifiers have been applied for the low level acetone detection.

X. FIELD QC

If Field Duplicates were identified, they met guidance for VOA of RPD of < 30% for water or < 50% for soil. For values reported at < 5 × the reporting limit (RL), a difference of 2 × RL or 3.5 × RL for soil is used as guidance. This is referred to as the CRDL Rule. Data are not qualified for Field Duplicates as these are evaluated for the total project by the Project Manager.

Yes ☒ No ☐ NA ☐

There are four identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL.

Parent Sample	Field Dup	Observations
MW-79-ODPM-9	DUP-1-ODPM-9	OK
MW-159-ODPM-9	DUP-2-ODPM-9	OK
MW-232-ODPM-9	DUP-3-ODPM-9	OK TCE at 24% .
MW-250-ODPM-9	DUP-4-ODPM-9	OK

XI. SYSTEM PERFORMANCE

A. The RICs, chromatograms, tunes and general system performance were acceptable for all instruments and analytical systems.

Yes ☐ No ☐ NA ☒

Not part of this review level.

B. The suggested EQLs for the sample matrices in this set were met.

Yes ☒ No ☐ NA ☐

XII. TCL COMPOUNDS

A. The identification is accurate and all retention times, library spectra and reconstructed ion chromatograms (RIC) were evaluated for all detected compounds.

Yes ☐ No ☐ NA ☒

Not part of this review level.

B. Quantitation was checked to determine the accuracy of calculations for representative compounds in each internal standards quantitation set.

Yes ☐ No ☐ NA ☒

Not part of this review level.

XIII. TENTATIVELY IDENTIFIED COMPOUNDS

TICs were properly identified and met the library identification criteria.

Yes _____ No _____ NA X

Not part of this review level.

XIV. OVERALL ASSESSMENT OF THE CASE

The laboratory has complied with the requested method. Data are fully usable after consideration of qualifiers. The following is noted:

This report has been requested to include the following review: QC, hold times, sample integrity (Chains of Custody, sample login), and summary calibrations. Note that there are 8 QC sets (days of analysis per instrument) and 3 instruments for the 47 samples.

The 2011 QAPP has been used for all review with the exception of the CCAL limits where the 25% NFG limits were applied as Method 8026B was used, not 8260C or the CLP method. Final application of these limits is being considered by project management.

Chain of Custody

No qualifiers have been added for Chain of Custody issues, and the Project Manager will update documentation per the notes in the text to complete the project record.

Sample Preservation

EPA regulations (See Federal Register, March 12, 2007, 40CFR Part 122) require only that the temperature of samples delivered to the laboratory be equal to or less than 6 °C. The sample temperature conditions are fully compliant with applicable regulations.

Initial Calibrations

ICV

Dichlorodifluoromethane is high in the 10/3/11 ICV for Instrument 8. It is also high in the LCS's for that instrument. The compound is not detected in client samples and no qualification is required.

Continuing Calibrations

See the table within the body of this report. No data have been qualified as all %D recoveries are high and data are non-detect. No qualification is required for high bias when the response factor is acceptable to verify the non-detect as is the case here.

Matrix Spikes

There are two MS/MSD samples associated with the 40 non-QC client samples: MW-164-ODPM-9 and MW-247-ODPM-9. This meets the recommendation of 1 per 20 field samples. As this is an ongoing project an overall adherence to the 1:20 frequency is monitored by the Project Manager.

The full target list has been spiked.

For MW-247-ODPM-9, MTBE was reported at 125/ 132% (limit 123%); MIBK at 122/ 135% (limit 134%); acetone at 132/136% (limit 135%). For MW-164-ODPM-9, MTBE was reported at 122 and 128% (limit 123%). No data have been qualified JMS#, where # is the lowest recovery as all associated samples were non-detect for these compounds and there is no qualification for high bias.

Laboratory Control Samples

The full target list has been spiked. When a high LCS recovery is associated with a non-detect in samples, no qualifier is added since the indicated bias is high. When the target is detected, data are qualified "JL#", where # is the recovery. Data could be biased high proportional to the LCS percent recovery. All results associated with low recoveries are qualified and data could be biased low. There were a number of high recoveries on Instruments 6 and 8. Only acetone has been qualified for high bias. The laboratory uses the

same control limits on all 3 instruments used for analysis even though the responses are different on each instrument. The control limits should be instrument specific.

Field Blanks

The field blank is RB-ODPM-9, which is associated only with MW-160-ODPM-9. The sample was clean and no qualifiers have been applied for the low level acetone detection.

Field QC

There are four identified field duplicates as described in the following table. If data were qualified they would be J, FD#, where # is the difference between the two values as both values are less than 5 x RL.

Parent Sample	Field Dup	Observations
MW-79-ODPM-9	DUP-1-ODPM-9	OK
MW-159-ODPM-9	DUP-2-ODPM-9	OK
MW-232-ODPM-9	DUP-3-ODPM-9	OK TCE at 24% .
MW-250-ODPM-9	DUP-4-ODPM-9	OK

TABLE OF QUALIFIED DATA

Lab ID	Client ID	Compound	Result ug/L	Work Group	MDL	DVAL
L11090899-01	MW-70-ODPM-9	Acetone	4.05	WG377875	2.5	JL139
L11090899-02	MW-76-ODPM-9	Acetone	2.85	WG377875	2.5	JL139
L11090899-03	MW-77-ODPM-9	Acetone	4.96	WG377875	2.5	JL139
L11090899-04	MW-79-ODPM-9	Acetone	4.86	WG377875	2.5	JL139
L11090899-10	MW-159-ODPM-9	Acetone	20.1	WG378088	2.5	JL140
L11090899-14	MW-163-ODPM-9	Acetone	3.86	WG378088	2.5	JL140
L11090899-15	MW-164-ODPM-9	Acetone	4.14	WG377967	2.5	JL147
L11090899-18	MW-165-ODPM-9	Acetone	3.13	WG377967	2.5	JL147
L11090899-19	MW-165A-ODPM-9	Acetone	3.56	WG377967	2.5	JL147
L11090899-20	MW-166-ODPM-9	Acetone	6.51	WG377967	2.5	JL147
L11090899-29	MW-249-ODPM-9	Acetone	2.86	WG377967	2.5	JL147
L11090899-30	MW-250-ODPM-9	Acetone	3.92	WG378088	2.5	JL140
L11090899-31	RB-ODPM-9	Acetone	3.83	WG378088	2.5	JL140
L11090899-32	DUP-1-ODPM-9	Acetone	5.63	WG378088	2.5	JL140
L11090899-34	DUP-3-ODPM-9	Acetone	18.9	WG378088	2.5	JL140

Final Data Qualification and Usability Report

Project: Defense Depot Memphis, TN (DDMT)
Off-Depot PM/LTM
Sampling Event: ODPM-9
Project / Task Number: 121842-003
Sample Data Package(s): L11090899
Data Validation Performed by: Diane Short & Associates (DSA)
Final Data Qualification and Usability
Report Prepared by: Lynn K. Lutz, HDR Inc.

Data Validation Report Review and Comments

The data validation report was acceptable. It appears the validator included the two sets of MS/MSD in the total sample count.

Final Data Qualifiers

Final qualifiers for detected acetone results with LCS recoveries above control limits were J where DSA had qualified as JL139, JL140 or JL147.

Final qualifiers were J where detected results were between the MDL and RL.

Data Usability

There were no rejected sample results. All results are usable as qualified.



09 January 2012

Lynn K. Lutz, HDR Inc.

Date

APPENDIX C
HISTORICAL CVOC RESULTS

APPENDIX C-1

**LTM WELLS
HISTORICAL CVOC RESULTS**

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-04

	Well ID	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04
	Sample Date	11/15/1993	6/20/1997	9/25/1997	3/28/1998	10/15/1998	11/21/2005	11/9/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10	0.23 J	<1
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	ND	1 J	<10	<10	1 J	0.43 J	0.16
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	32.6	74	78	72	120	33.4	23.4
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1
Trichloroethene	µg/L	ND	2 J	3 J	3 J	4 J	2.23	1.11
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1 UJ	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-04

Analyte	Well ID	MW-04	MW-04	MW-04
	Sample Date	4/21/2009	10/14/2009	4/28/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.328	0.294 J	0.278 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-05

	Well ID	MW-05	MW-05	MW-05	MW-05	MW-05	MW-05	MW-05
	Sample Date	11/16/1993	6/21/1997	9/27/1997	3/28/1998	10/15/1998	10/13/2009	4/28/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	1.85	5 J	5 J	3 J	3 J	0.227 J	0.428 B
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	16.9	48	89	65	70	<1	<1
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1
Trichloroethene	µg/L	3.33	8 J	14	5 J	8 J	<1	<1
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-06

Analyte	Well ID	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06
	Sample Date	11/18/1993	6/21/1997	9/27/1997	3/30/1998	10/15/1998	10/27/2004	11/21/2005
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	219	110	220	130	220	613	237
1,1,2-Trichloroethane	µg/L	9.1	7 J	9 J	5 J	8 J	20.9 J	10.1
1,1-Dichloroethene	µg/L	ND	<20	<20	<10	<20	<1	<1
Carbon tetrachloride	µg/L	43.7	45	37	15	23	31.2 J	26.5
Chloroform	µg/L	14.3	16 J	14 J	6 J	10 J	15.4 J	10.2
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	436	295
Tetrachloroethene	µg/L	3.06	4 J	3 J	1 J	2 J	1.9 J	1.84
trans-1,2-Dichloroethene	µg/L	20.8	--	--	--	--	25.4 J	16.8
Trichloroethene	µg/L	198	260	240	94	160	236	171
Vinyl chloride	µg/L	ND	<20	<20	<10	<20	1.59 J	1.35 J

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-06

	Well ID	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06
	Sample Date	5/16/2007	11/7/2007	4/15/2008	8/19/2008	10/17/2008	4/22/2009	10/13/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	41	18.4	8.89	8.1	5.57	3.23	3.96
1,1,2-Trichloroethane	µg/L	3.9	2.32	1.02	0.972	0.674 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	16	13.8	3.78	1.35	0.793 J	0.463 J	<1
Chloroform	µg/L	6.2	8.55	84.7	29.4	21.2	6.17	5.48
cis-1,2-Dichloroethene	µg/L	200	150	36.2	23.1	15	4.91	3.78
Tetrachloroethene	µg/L	1.4	1.14	1.07	0.365	<1	0.254 J	<1
trans-1,2-Dichloroethene	µg/L	11	6.33	1.45	0.926	0.458 J	<1	<1
Trichloroethene	µg/L	120	78.1	32.5	14.2	8.6	2.53	2.44
Vinyl chloride	µg/L	0.68	0.484	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-06

Analyte	Well ID	MW-06	MW-06	MW-06
	Sample Date	3/26/2010	4/26/2011	7/19/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	2.67	0.807	0.614
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	5.4	8.73	4.88
cis-1,2-Dichloroethene	µg/L	1.62	0.637 J	0.41 J
Tetrachloroethene	µg/L	<1	0.304 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.29	3.34	1.75
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-13

Analyte	Well ID	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
	Sample Date	11/15/1993	6/20/1997	9/26/1997	3/26/1998	10/15/1998	1/8/2001	10/22/2003
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10	<1	0.517
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<0.5
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	ND	<10	<10	<10	<10	<1	0.391 J
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	2.01	7 J	8 J	2 J	3 J	<1	9.06
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1
Trichloroethene	µg/L	ND	<10	<10	<10	<10	<1 UJ	1.23
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-13

Analyte	Well ID	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
	Sample Date	11/17/2003	12/17/2003	2/2/2004	4/5/2004	10/28/2004	11/21/2005	11/7/2007
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	2.64 J	0.66 J	<1
1,1,2-Trichloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.402 J	0.352 J	0.409 J	0.397 J	0.345 J	0.27 J	0.127
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.33	6.97	4.69	4.53	3.5	2.15	0.571
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.325 J	0.308 J	0.262 J	0.638 J	<1	0.91 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-13

Analyte	Well ID	MW-13	MW-13	MW-13
	Sample Date	4/21/2009	10/14/2009	4/28/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.142 J	0.187 J	0.522 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-14

Analyte	Well ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
	Sample Date	11/17/1993	6/18/1997	9/24/1997	3/25/1998	10/15/1998	2/16/2000	5/18/2000
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10	<1	<1
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	ND	1 J	<10	<10	<10	<1	<1
Chloroform	µg/L	ND	<10	<10	<10	<10	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	ND	<10	<10	<10	<10	<1	<1
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	--	<1	<1
Trichloroethene	µg/L	ND	<10	1 J	<10	1 J	<1	<1
Vinyl chloride	µg/L	ND	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-14

Analyte	Well ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
	Sample Date	8/24/2000	11/6/2000	10/28/2004	11/21/2005	11/7/2007	4/21/2009	10/13/2009
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1 UJ	<1	<1	0.15 J	<1	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	0.743 J	0.939 J
Chloroform	µg/L	<1	<1	<1	<1	<1	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	0.507 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1 UJ	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-14

Analyte	Well ID	MW-14
	Sample Date	4/28/2011
Analyte	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	0.56 J
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-15

	Well ID	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15
	Sample Date	11/18/1993	6/20/1997	9/26/1997	3/28/1998	10/15/1998	2/3/1999	5/25/1999
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2.71	<20	<25	<10	<10	<1	28.2
1,1,2-Trichloroethane	µg/L	<1	<20	<25	<10	<10	<1	2.66
1,1-Dichloroethene	µg/L	<1	<20	<25	<10	<10	<1	<1
Carbon tetrachloride	µg/L	38.9	31	46	3 J	5 J	27.9	79.6
Chloroform	µg/L	59.2	300	380	13	31	308	1610
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	5.96	22.6
Tetrachloroethene	µg/L	4.29	7 J	12 J	<10	<10	4.75	18.8
trans-1,2-Dichloroethene	µg/L	2.09	--	--	--	--	2.13	8.26
Trichloroethene	µg/L	46.4	99	140	6 J	13	115	518
Vinyl chloride	µg/L	ND	<20	<25	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-15

	Well ID	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15
	Sample Date	8/27/1999	11/3/1999	2/15/2000	3/24/2000	5/17/2000	8/22/2000	11/7/2000
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	165	291	522	600	343	389	147
1,1,2-Trichloroethane	µg/L	4.18	5.72	10.2	11	4.69	5.7	2.6
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	39.2	35.2	29	27	16.3	24.7	12.8
Chloroform	µg/L	1270	1020	1060	1400	704	848	224
cis-1,2-Dichloroethene	µg/L	12.4	10.8	14.3	14	6.96	12	4.75
Tetrachloroethene	µg/L	10	8.46	6.91	12	3.96	7.18	2.84
trans-1,2-Dichloroethene	µg/L	4.29	4.08	4.54	5	2.29	4.17	1.73
Trichloroethene	µg/L	331	299	299	360	154	234	65.9
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-15

Analyte	Well ID	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15
	Sample Date	10/27/2004	11/21/2005	5/15/2007	11/7/2007	4/15/2008	8/19/2008	10/16/2008
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	273 J	273	78	2.47	2.15	0.988	4.61
1,1,2-Trichloroethane	µg/L	10.5	6.09	3.7	<1	<1	<1	0.593 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	58.2	13.4	31	25	16	6.35	2.51
Chloroform	µg/L	1530	489	810	186	106	33.4	29.9
cis-1,2-Dichloroethene	µg/L	46.3	15	27	10.6	5.99	3.07	2.54
Tetrachloroethene	µg/L	14.4	2.98	14	6.32	7.19	2.99	1.16
trans-1,2-Dichloroethene	µg/L	10.1	3.1	5.8	3.67	2.02	0.731	<1
Trichloroethene	µg/L	403	133	330	145	104	44.2	22.9
Vinyl chloride	µg/L	<1	2.81 J	<1	0.313	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-15

Analyte	Well ID	MW-15	MW-15	MW-15	MW-15
	Sample Date	4/20/2009	10/13/2009	3/26/2010	4/26/2011
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	0.963	24.5 J	11.8	0.239 J
1,1,2-Trichloroethane	µg/L	<1	0.905 J	0.283 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.513 J	2.97	1.81	0.288 J
Chloroform	µg/L	0.524	31.1 J	14.7	3.21
cis-1,2-Dichloroethene	µg/L	<1	1.69	0.796 J	<1
Tetrachloroethene	µg/L	0.612 J	1.13	0.85 J	0.442 J
trans-1,2-Dichloroethene	µg/L	<1	0.332 J	<1	<1
Trichloroethene	µg/L	0.289 J	27	13.8	2.02
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-31

Analyte	Well ID	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31
	Sample Date	11/19/1993	6/20/1997	9/24/1997	3/24/1998	10/15/1998	2/3/1999	5/25/1999
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	96	<10	10 J	97	33	3.22	<1
1,1,2-Trichloroethane	µg/L	6.48	<10	<20	4 J	<25	<1	<1
1,1-Dichloroethene	µg/L	52.4	29	47	26	14 J	7.86	33.3
Carbon tetrachloride	µg/L	4.81	1 J	8 J	3 J	<25	1.51	<1
Chloroform	µg/L	21.1	10	49	21 J	16 J	7.22	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	58.9	4.78
Tetrachloroethene	µg/L	95.4	67	110	66	42	4.25	7.55
trans-1,2-Dichloroethene	µg/L	164	--	--	--	--	22.2	2.14
Trichloroethene	µg/L	1110	78	220	400	380	140	23.9
Vinyl chloride	µg/L	--	<10	<20	<25	<25	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-31

	Well ID	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31
	Sample Date	8/27/1999	11/3/1999	2/15/2000	3/23/2000	5/17/2000	8/23/2000	11/7/2000
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7.9	5.98	9.89	8	22.3	<1	31.5
Carbon tetrachloride	µg/L	0.59 J	<1	<1	<1	<1	0.4 J	<1
Chloroform	µg/L	1.66	0.92 J	1.19	0.5 J	1.29	<1	<1
cis-1,2-Dichloroethene	µg/L	4.34	5.09	6.89	0.6 J	15.5	12.3	4.24
Tetrachloroethene	µg/L	1.31	0.9 J	0.64 J	1 J	1.16	2.08	0.92 J
trans-1,2-Dichloroethene	µg/L	4.66	2.52	3.37	0.3 J	7.78	<1	4.53
Trichloroethene	µg/L	33.7	18	25.6	4	49.5	68.1	18.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-31

	Well ID	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31
	Sample Date	2/14/2001	10/3/2001	4/10/2002	10/2/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	14.8	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	1.2	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7.98	31.2	39.5	55.4	5.37	8.38	40
Carbon tetrachloride	µg/L	2.76	1.25	<1	0.88 J	<1	<1	0.24 J
Chloroform	µg/L	25.1	1.61	<1	1.08	<1	<1	0.32 J
cis-1,2-Dichloroethene	µg/L	148	5.53	6.78	17	2.06	<1	0.56 J
Tetrachloroethene	µg/L	5.02	4.19	1.24	1.32	0.92	<1	2.2
trans-1,2-Dichloroethene	µg/L	49.3	4.83	5.34	11.3	1.53	<1	0.47 J
Trichloroethene	µg/L	241	38.1	33.1	87.5	13.5	2.32	16
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-31

	Well ID	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31
	Sample Date	8/12/2004	10/20/2004	6/17/2005	11/18/2005	4/12/2006	10/18/2006	4/9/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1.7	<1	<1	<1	<1	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1.7	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	26 B	17	24.9	27.8	29.6	30.6	12.5
Carbon tetrachloride	µg/L	<1.7	<1 J	<1	<1	<1	<1	0.451 J
Chloroform	µg/L	<1.7	<1	<1	<1	<1	0.131 J	0.458
cis-1,2-Dichloroethene	µg/L	<1.7	0.58 J	0.814 J	<1	1.56	<1	7.32
Tetrachloroethene	µg/L	0.59 J	0.42 J	0.547 J	0.755 J	1.35	7.58	1.45
trans-1,2-Dichloroethene	µg/L	<1.7	0.31 J	0.595 J	<1	1.4	<1	5.44
Trichloroethene	µg/L	5.5	4.7	8.48	8.86	4.99	3.85	30.2
Vinyl chloride	µg/L	<1.7 J	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-31

	Well ID	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31
	Sample Date	10/5/2007	4/11/2008	10/17/2008	4/14/2009	10/14/2009	3/26/2010	4/26/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	0.262 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	7.73	7.17	7.36	35	28.8	30.9	1.17
Carbon tetrachloride	µg/L	0.48 J	0.368 J	<1	<1	<1	<1	<1
Chloroform	µg/L	0.398	0.802	0.219 J	0.186 J	0.161 J	0.16 J	<0.3
cis-1,2-Dichloroethene	µg/L	8.45	2.87	<1	0.26 J	0.273 J	<1	<1
Tetrachloroethene	µg/L	0.887 J	0.916 J	3.17	43.5	41.2	22.7	2.47
trans-1,2-Dichloroethene	µg/L	5.23	1.51	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.87	3.21	4.34	33.4	29	20.4	2.15
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-32

	Well ID	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Date	11/18/1993	6/21/1997	9/29/1997	3/27/1998	2/3/1999	5/25/1999	8/26/1999
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	162	91	110	140	5.67	4.42	0.92 J
1,1,2-Trichloroethane	µg/L	7.69	5 J	5 J	6 J	1.54	<1	<1
1,1-Dichloroethene	µg/L	--	<10	<10	<10	<1	<1	<1
Carbon tetrachloride	µg/L	33	25	16	20	25.2	14.2	17.3
Chloroform	µg/L	11.3	8 J	6 J	7 J	7.89	32.2	76.9
cis-1,2-Dichloroethene	µg/L	--	--	--	--	30.5	16.7	4.64
Tetrachloroethene	µg/L	2	2 J	1 J	1 J	1.16	1.28	2.22
trans-1,2-Dichloroethene	µg/L	10.4	--	--	--	3.82	1.76	0.99 J
Trichloroethene	µg/L	137	93	76	100	31.9	28.1	34.6
Vinyl chloride	µg/L	--	<10	<10	<10	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-32

Analyte	Well ID	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Date	11/3/1999	2/15/2000	5/16/2000	8/24/2000	11/9/2000	2/20/2001	10/3/2001
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	2.12	21.5	68.2	216
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	0.61 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	25.2	25.5	37	47.2	61.3	19.7	42.7
Chloroform	µg/L	73	77.2	117	171	372 J	434	828
cis-1,2-Dichloroethene	µg/L	4.59	5.07	6.61	5.66	8.55	9.44	12.6 J
Tetrachloroethene	µg/L	2.63	2.34	3.94	5.9	6.39 J	3.74	<1
trans-1,2-Dichloroethene	µg/L	1.01	1.12	2	2.68	4.53	2.42	5.82 J
Trichloroethene	µg/L	36.8	41.8	58.2	89.2	94.8	71.9	238
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-32

	Well ID	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Date	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004	8/13/2004	10/20/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	24	14	11	7.82	8.1	21	3.6
1,1,2-Trichloroethane	µg/L	0.59 J	<1	0.52	<1	<1	<2.5	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<2.5	<1
Carbon tetrachloride	µg/L	12.1	12.3	1.18	<1	8.2	7.6	2.3 J
Chloroform	µg/L	102	91.5	50.2	50.9	37	68	17
cis-1,2-Dichloroethene	µg/L	4.21	3.49	9.16	7.97	2	2.8	1.7
Tetrachloroethene	µg/L	0.82 J	1.41	<1	<1	0.37 J	0.97 J	<1
trans-1,2-Dichloroethene	µg/L	1.26	0.72 J	<1	<1	0.36 J	<2.5	0.23 J
Trichloroethene	µg/L	37.9	34.8	13.5	13.4	14	24	7.3
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<2.5	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-32

	Well ID	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Date	10/28/2004	6/14/2005	11/16/2005	4/12/2006	10/19/2006	4/9/2007	10/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	17.1 J	3.72	32.7	46	21.7	1.59	<0.5
1,1,2-Trichloroethane	µg/L	0.379 J	<1	1.06	1.28	0.594 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	9.56 J	2.83	12.3	17.4	12.3	3.95	<1
Chloroform	µg/L	64.7 J	11.5	131	154	86	8.63	<0.3
cis-1,2-Dichloroethene	µg/L	3.3 J	1.65	4.99	7.62	3.53	1.14	<1
Tetrachloroethene	µg/L	0.936 J	<1	1.55	2.58	1.63	0.82 J	<1
trans-1,2-Dichloroethene	µg/L	0.490 J	<1	<1	1.25	0.613 J	<1	<1
Trichloroethene	µg/L	22 J	4.1	55	70	38	6.47	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-32

	Well ID	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Date	4/11/2008	10/17/2008	4/15/2009	10/14/2009	3/26/2010	4/26/2011
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	16.2	9.16	3.39
1,1,2-Trichloroethane	µg/L	<1	<1	<1	0.873 J	0.434 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	20.2	6.71	1.21
Chloroform	µg/L	4.07	0.2 J	0.593	176	60	10.9
cis-1,2-Dichloroethene	µg/L	0.263 J	2.09	3.03	10.3	6.27	3.6
Tetrachloroethene	µg/L	<1	<1	<1	5.41	2.43	0.45 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	1.97	0.926 J	<1
Trichloroethene	µg/L	2.47	3.65	4.41	113	38.3	6.92
Vinyl chloride	µg/L	<1	<1	0.495 J	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-33

Analyte	Well ID	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33
	Sample Date	11/19/1993	6/18/1997	9/25/1997	3/25/1998	10/16/1998	2/2/1999	5/25/1999
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2.28	<10	<10	<10	<10	<1	<1
1,1,2-Trichloroethane	µg/L	--	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	--	<10	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	--	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	--	<10	<10	<10	<10	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	--	<10	<10	<10	<10	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Trichloroethene	µg/L	--	<10	<10	<10	<10	<1	<1
Vinyl chloride	µg/L	--	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-33

	Well ID	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33
	Sample Date	8/26/1999	11/2/1999	2/15/2000	5/16/2000	8/22/2000	11/8/2000	10/3/2001
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-33

	Well ID	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33
	Sample Date	4/10/2002	10/2/2002	4/8/2003	10/28/2003	4/29/2004	10/20/2004	6/14/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-33

	Well ID	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33	MW-33
	Sample Date	11/16/2005	4/12/2006	10/20/2006	4/9/2007	10/8/2007	4/14/2008	10/17/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5	<0.5 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Carbon tetrachloride	µg/L	<1	0.562 J	0.278 J	0.457 J	1.5	<1 J	<1
Chloroform	µg/L	<1	<1	<0.3	<0.3	<0.3	<0.3 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-33

Analyte	Well ID	MW-33	MW-33	MW-33
	Sample Date	4/15/2009	10/14/2009	4/28/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	0.474 J	<1	<1
Chloroform	µg/L	0.184 J	<0.3	0.517 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.254 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-37

	Well ID	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37
	Sample Date	11/18/1993	9/29/1996	6/18/1997	3/27/1998	2/20/2001	4/10/2002	10/1/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<1	<1	<1
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<1	<1	<1
1,1-Dichloroethene	µg/L	ND	<10	<10	<10	<1	<1	<1
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	ND	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	ND	<10	<10	<10	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	ND	--	--	--	<1	<1	<1
Trichloroethene	µg/L	ND	<10	<10	<10	<1	<1	<1
Vinyl chloride	µg/L	ND	<10	<10	<10	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-37

	Well ID	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37
	Sample Date	4/8/2003	10/28/2003	4/29/2004	10/21/2004	6/14/2005	11/16/2005	4/12/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1 J	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-37

	Well ID	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37
	Sample Date	10/19/2006	4/9/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	0.788	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	4.12	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	6.01	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.29 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.637 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	2.71	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-37

	Well ID	MW-37
	Sample Date	4/28/2011
Analyte	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-44

	Well ID	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44
	Sample Date	6/20/1997	9/25/1997	3/27/1998	10/17/1998	2/2/1999	5/25/1999	8/26/1999
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<10
Carbon tetrachloride	µg/L	6 J	6 J	4 J	<10	<1	<1	<10
Chloroform	µg/L	6 J	<10	4 J	<10	<1	<1	<10
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<10
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<10
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<10
Trichloroethene	µg/L	4 J	5 J	3 J	<10	<1	<1	<10
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<10

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-44

	Well ID	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44
	Sample Date	11/2/1999	2/15/2000	5/16/2000	8/24/2000	11/8/2000	10/3/2001	4/10/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	1.29	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	2.3	5.3	2.1	6.47	4.36
Chloroform	µg/L	<1	<1	1.88	3.62	1.23	5.04	2.81
cis-1,2-Dichloroethene	µg/L	<1	<1	0.65 J	1.35	0.622 J	<1	1.1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.36	4.92	0.79 J	2.77	2.05
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-44

	Well ID	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44
	Sample Date	10/1/2002	4/8/2003	10/28/2003	4/29/2004	8/14/2004	10/21/2004	6/16/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.39	3.65	1.96	1.3	0.8 J	0.71 J	<1
Chloroform	µg/L	2.8	2.19	1.15	0.91 J	0.4 J	0.64 J	<1
cis-1,2-Dichloroethene	µg/L	1.01	0.84	<1	0.35 J	<1	0.27 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Trichloroethene	µg/L	1.67	1.64	0.82 J	0.75 J	0.28 J	0.55 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-44

	Well ID	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44
	Sample Date	11/17/2005	4/13/2006	10/19/2006	4/9/2007	10/5/2007	4/11/2008	10/20/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1.01	<1	1.2	1.24	1.2	0.823 J	0.708 J
Chloroform	µg/L	<1	<1	0.467	0.694	0.63	0.567	0.366
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.366 J	0.688 J	0.467 J	0.599 J	0.665 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-44

Analyte	Well ID	MW-44	MW-44	MW-44	MW-44
	Sample Date	4/14/2009	10/15/2009	3/26/2010	4/26/2011
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.5 J	0.822 J	<1	<1
Chloroform	µg/L	0.266 J	0.213 J	<0.3	0.17 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.252 J	<1	0.426 J	0.579 J
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-51

	Well ID	MW-51	MW-51	MW-51	MW-51	MW-51	MW-51	MW-51
	Sample Date	6/20/1997	9/27/1997	3/28/1998	10/19/1998	2/2/1999	5/24/1999	8/26/1999
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1
1,1-Dichloroethene	µg/L	6 J	23	30	10	23.4	16.9	15.2
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	1 J	4 J	4 J	2 J	1.5	<1	0.54 J
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	5 J	13	15	7 J	8.44	4.64	3.71
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-51

	Well ID	MW-51	MW-51	MW-51	MW-51	MW-51	MW-51	MW-51
	Sample Date	11/3/1999	2/15/2000	5/16/2000	8/24/2000	11/8/2000	2/19/2001	10/3/2001
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	8.19	1.08	8.23	12.9	57.9	15.8	31.4
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.83 J	<1	<1	1.49	3.51	1.86	2.13
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.93	0.7 J	4.63	6.33	13.2	6.09	9.88
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-51

	Well ID	MW-51	MW-51	MW-51	MW-51	MW-51	MW-51	MW-51
	Sample Date	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004	11/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	26.4	57	33.3	17.6	21	16	17.6
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	0.186
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.74 J	0.76	0.92 J	1.3	1.2	1.65
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.9	7.11	9.83	5.54	5.5	5.1	7.71
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-51

Analyte	Well ID	MW-51	MW-51	MW-51
	Sample Date	4/20/2009	10/15/2009	4/28/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	20.3	15	13.9
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.449	0.231 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	1.01	2.3	2.27
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	6.32	10.4	8.84
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-57

	Well ID	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57
	Sample Date	3/15/1999	2/16/2000	5/17/2000	8/22/2000	11/7/2000	10/3/2001	4/10/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	14	39.9	50.6	45.7	48.3	37.5	42.8
Chloroform	µg/L	6 J	13.2	10.3	11.3	8.93	28	15.1
cis-1,2-Dichloroethene	µg/L	--	<1	<1	0.53 J	0.411 J	0.97 J	0.55 J
Tetrachloroethene	µg/L	2 J	5.38	5.1	5.86	5.07	5.24	6.08
trans-1,2-Dichloroethene	µg/L	--	1.55	1.51	1.83	1.5	1.73	1.88
Trichloroethene	µg/L	22	50.8	46.5	49.2	30.9	77.4	66.4
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-57

	Well ID	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57
	Sample Date	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004	10/28/2004	6/14/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<3.3	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<3.3	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<3.3	<1	<1	<1
Carbon tetrachloride	µg/L	43	42.4	33.3	33	19	23.7	20.6
Chloroform	µg/L	29.7	15.6	18.2	5.7	6.1	9.29	4.94 B
cis-1,2-Dichloroethene	µg/L	1.13	0.68	<1	<3.3	0.27 J	0.340 J	<1
Tetrachloroethene	µg/L	8.14	7.86	5.32	5	2.7	2.96	2.6
trans-1,2-Dichloroethene	µg/L	2.27	1.37	1.45	0.46 J	0.58 J	0.799 J	<1
Trichloroethene	µg/L	54.1	73.3	71.6	48	29	35.9	19
Vinyl chloride	µg/L	<1	<1	<1	<3.3	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-57

Analyte	Well ID	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57
	Sample Date	11/18/2005	4/12/2006	10/20/2006	4/10/2007	5/15/2007	10/5/2007	4/14/2008
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	17.1	23	31	29.6	28	22.9	11.1
Chloroform	µg/L	4.75 B	3.25 B	5.67	6.6	5.8	6.29	3.32
cis-1,2-Dichloroethene	µg/L	<1	<1	0.294 J	0.325 J	0.33	0.371 J	<1
Tetrachloroethene	µg/L	2.3	2.81	4.02	5.06	4.3	4.48	3.03
trans-1,2-Dichloroethene	µg/L	<1	0.419 J	0.659 J	0.684 J	0.58	0.719 J	<1
Trichloroethene	µg/L	17.6	18	28.7	34.6	29	31.2	19.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-57

Analyte	Well ID	MW-57	MW-57	MW-57	MW-57	MW-57	MW-57
	Sample Date	8/19/2008	10/17/2008	4/15/2009	10/13/2009	3/26/2010	4/26/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	0.538 J	<1	<1	<1
Carbon tetrachloride	µg/L	6.04	4.23	1.82	0.9 J	<1	<1
Chloroform	µg/L	12.6	15.9	73	67.4	50.7 J	20.3
cis-1,2-Dichloroethene	µg/L	<1	<1	1.44	1.48	1.03	0.409 J
Tetrachloroethene	µg/L	2.18	1.82	1.17	0.841 J	0.27 J	<1
trans-1,2-Dichloroethene	µg/L	0.386	0.358 J	0.567 J	0.31 J	<1	<1
Trichloroethene	µg/L	29.2	30.4	28.7	20.3	7.57	1.84
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-58

	Well ID	MW-58	MW-58	MW-58	MW-58	MW-58	MW-58	MW-58
	Sample Date	3/15/1999	2/16/2000	5/17/2000	8/22/2000	11/7/2000	2/19/2001	10/3/2001
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<10	<1	<1	0.26 J	<1	0.43 J	<1
Chloroform	µg/L	<10	3.68	5.88	2.42	1.91	2.05	1.85
cis-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<1	<1	0.41 J	<1	0.4 J	<1
trans-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<10	4.36	4.22	1.44	2.72	2.47	1.78
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-58

	Well ID	MW-58	MW-58	MW-58	MW-58	MW-58	MW-58	MW-58
	Sample Date	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/28/2004	11/21/2005	11/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.75	3.36	1.47	<1	1.1	1.99	8.89
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.57	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.46	1.82	1.06	<1	0.41 J	0.67 J	0.321
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-58

Analyte	Well ID	MW-58	MW-58
	Sample Date	10/15/2009	4/28/2011
UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.213 J
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	0.81 J	0.946 J
Chloroform	µg/L	0.149 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	0.309 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	0.26 J
Vinyl chloride	µg/L	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-65

Analyte	Well ID	MW-65	MW-65	MW-65	MW-65	MW-65	MW-65
	Sample Date	11/11/1998	4/10/2002	10/1/2002	4/20/2009	10/15/2009	4/28/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<10	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<10	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<10	<1	<1	<1	<1	<1
Chloroform	µg/L	<10	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<10	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<10	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1

Notes:

-- not analyzed

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-69

	Well ID	MW-69	MW-69	MW-69	MW-69	MW-69	MW-69	MW-69
	Sample Date	2/16/2000	5/18/2000	8/24/2000	11/9/2000	1/8/2001	10/3/2001	4/10/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	4.36	<1	0.6 J	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.73 J	<1	<1	0.3 J	<1	<1
Chloroform	µg/L	<1	3.56	<1	2.12	1	<1	1.52
cis-1,2-Dichloroethene	µg/L	4.11	31.2	2.26	23.1	11	<1	7.92
Tetrachloroethene	µg/L	1.76	4.87	0.68 J	6.39 J	4	<1	1.84
trans-1,2-Dichloroethene	µg/L	2.26	19.1	0.86 J	12.3	5	<1	4.14
Trichloroethene	µg/L	99.2	642	50.4	464	350	1.01	128
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-69

	Well ID	MW-69	MW-69	MW-69	MW-69	MW-69	MW-69	MW-69
	Sample Date	10/2/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004	6/15/2005	11/16/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	0.17 J	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.98 J	1.94	<1	0.55 J	1.5	0.951 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1 R	<1	<1
Trichloroethene	µg/L	8.12	2.18	<1	0.47 J	3.7	2.47	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-69

	Well ID	MW-69	MW-69	MW-69	MW-69	MW-69	MW-69	MW-69
	Sample Date	4/12/2006	10/20/2006	4/11/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5.51	<0.5	<0.5	<0.5	<0.5	0.229 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	0.261 J	0.144 J	0.136 J	<0.3	0.147 J	0.206 J
cis-1,2-Dichloroethene	µg/L	<1	0.348 J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	4.72	2.03	0.898 J	1.03	0.658 J	0.67 J	0.308 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.85	9.84	0.879 J	<1	<1	0.88 J	1.74
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-69

Analyte	Well ID	MW-69	MW-69	MW-69
	Sample Date	10/14/2009	3/26/2010	4/26/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	0.161 J	0.203 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.271 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

R Unusable

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-71

	Well ID	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71
	Sample Date	2/15/2000	3/24/2000	5/18/2000	8/23/2000	11/9/2000	10/3/2001	4/10/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	97.7	180	181	168	78.4	268	68.1
1,1,2-Trichloroethane	µg/L	3.21	5 J	4.54	4.04	2.99	5.17 J	6
1,1-Dichloroethene	µg/L	<1	<10	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	53.9	47	34	32.9	26.5	22.6	20.3
Chloroform	µg/L	996	1600	1080	989	605 J	857	828
cis-1,2-Dichloroethene	µg/L	11.5	14	9.98	8.94	6.49	9.09 J	9.64
Tetrachloroethene	µg/L	10	15	7.35	7.02	4.09 J	<1	1.96
trans-1,2-Dichloroethene	µg/L	4.7	5 J	3.72	2.94	2.29	2.91 J	3.36
Trichloroethene	µg/L	330	390	239	247	95.6	186	70.9
Vinyl chloride	µg/L	<1	<10	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-71

	Well ID	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71
	Sample Date	10/2/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004	10/28/2004	6/14/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	9.49	7.62	27	3.8	6	4.27	25.8
1,1,2-Trichloroethane	µg/L	<1	0.66	<1	<2	<1	<1	0.634 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<2	<1	<1	<1
Carbon tetrachloride	µg/L	11.2	17.6	6.87	8.2	5.6 J	9.9	12.8
Chloroform	µg/L	8.89	35.4	88.8	56	28	17.5	103
cis-1,2-Dichloroethene	µg/L	1.12	1.59	1.59	0.98 J	0.7 J	0.59 J	1.86
Tetrachloroethene	µg/L	<1	1.31	<1	0.54 J	0.4 J	0.61 J	1.58
trans-1,2-Dichloroethene	µg/L	<1	0.52	<1	<2	<1	<1	0.532 J
Trichloroethene	µg/L	27	44.5	17.4	6.9	12	6.95	34.9
Vinyl chloride	µg/L	<1	<1	<1	<2	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-71

	Well ID	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71	MW-71
	Sample Date	11/16/2005	4/12/2006	10/20/2006	4/11/2007	10/8/2007	4/14/2008	10/17/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	27.6	26.3	22.9	4.66	2.21	1.72	5.32
1,1,2-Trichloroethane	µg/L	0.924 J	0.766 J	1.16	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	14	16.3	37.8	16.5	12.6	7.66	5.94
Chloroform	µg/L	94.2	73.5	303	59.2	32.6	17.3	27.2
cis-1,2-Dichloroethene	µg/L	10.6	10.6	11.7	1.89	1.65	0.523 J	0.717 J
Tetrachloroethene	µg/L	2.1	2.65	7.34	3.03	1.52	0.715 J	0.856 J
trans-1,2-Dichloroethene	µg/L	<1	0.977 J	3.07	0.59 J	0.36 J	<1	<1
Trichloroethene	µg/L	47.9	54	158 J	36.2	21	9.37	12.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-71

Analyte	Well ID	MW-71	MW-71	MW-71	MW-71
	Sample Date	4/15/2009	10/14/2009	3/26/2010	4/26/2011
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	4.42	7.97	8.26	0.892
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.683 J	0.301 J	<1	<1
Chloroform	µg/L	8.79	3.79	1.47	29.3
cis-1,2-Dichloroethene	µg/L	0.262 J	<1	<1	0.531 J
Tetrachloroethene	µg/L	0.265 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	3.93	2.23	0.612 J	4.48
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-74

	Well ID	MW-74	MW-74	MW-74	MW-74	MW-74	MW-74	MW-74
	Sample Date	1/8/2001	10/22/2003	11/17/2003	12/19/2003	2/2/2004	4/6/2004	10/28/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	180	1250	4770	1650	460	718	658
1,1,2-Trichloroethane	µg/L	2 J	1.05	4.95	1.75	0.402 J	2.83	2.89 J
1,1-Dichloroethene	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.5 J	0.502 J	<1	<1	<1	<1	<1
Chloroform	µg/L	2	0.716 J	1.63	0.422 J	<1	0.369 J	<1
cis-1,2-Dichloroethene	µg/L	20	17.1	47.1	9.88	2.99	14.6	4.2 J
Tetrachloroethene	µg/L	8	4.22	3.9	1.2	0.475 J	1.9	0.874 J
trans-1,2-Dichloroethene	µg/L	4 J	4.17	5.23	1.44	0.677 J	3.07	1.15 J
Trichloroethene	µg/L	750	552	918	241	147	551	95.8 J
Vinyl chloride	µg/L	0.2 J	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-74

	Well ID	MW-74	MW-74	MW-74	MW-74	MW-74	MW-74	MW-74
	Sample Date	11/20/2005	5/17/2007	11/9/2007	4/15/2008	8/19/2008	10/21/2008	4/22/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	1330	60	95.8	16.1	15.4	0.458 J	19.8
1,1,2-Trichloroethane	µg/L	4.06	<1	1.15	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.37	0.2	0.196	0.163 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	42.2	2.3	4.98	<1	<1	<1	<1
Tetrachloroethene	µg/L	8.93	1.1	0.81	0.473 J	0.474	0.842 J	0.521 J
trans-1,2-Dichloroethene	µg/L	6.89	0.3	0.456	<1	<1	<1	<1
Trichloroethene	µg/L	1240	69	61.8	7.19	3.64	0.458 J	4.05
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1 UJ

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-74

Analyte	Well ID	MW-74	MW-74	MW-74
	Sample Date	10/14/2009	3/26/2010	4/26/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	0.364 J	0.43 J	0.506
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.628	0.696	0.498
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.495 J	0.712 J	0.612 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.34	2.4	4.93
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-75

	Well ID	MW-75	MW-75	MW-75	MW-75	MW-75	MW-75	MW-75
	Sample Date	1/8/2001	11/20/2005	11/9/2007	4/22/2009	10/14/2009	3/26/2010	4/26/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	4	10.8	7.01	0.356 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	2	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.1 J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1	<1	<1	0.129 J	0.383	0.142 J	<0.3
cis-1,2-Dichloroethene	µg/L	34	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2	1.31	0.623	0.46 J	0.526 J	0.624 J	0.876 J
trans-1,2-Dichloroethene	µg/L	5	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8	31.5	1.71	<1	<1	<1	<1
Vinyl chloride	µg/L	<0.001	<1 J	<1	<1 J	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-78

	Well ID	MW-78	MW-78	MW-78	MW-78	MW-78	MW-78	MW-78
	Sample Date	2/14/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	5.2
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.7 J
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.36 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-78

Analyte	Well ID	MW-78	MW-78	MW-78	MW-78	MW-78	MW-78
	Sample Date	10/21/2004	11/17/2005	11/8/2007	4/21/2009	3/29/2010	4/28/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	0.74 J	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.59 J	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-87

	Well ID	MW-87	MW-87	MW-87	MW-87	MW-87	MW-87	MW-87
	Sample Date	1/8/2001	10/27/2004	11/21/2005	11/9/2007	4/23/2009	10/13/2009	3/26/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	140	10.2 J	86.6	180	0.939	7.09	12
1,1,2-Trichloroethane	µg/L	6	0.799 J	3.59	6.67	<1	<1	0.653 J
1,1-Dichloroethene	µg/L	0.2 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	32	18.7 J	8.18	7.16	<1	<1	<1
Chloroform	µg/L	6	6.03 J	3.88	6.25	0.148 J	0.471	1.04
cis-1,2-Dichloroethene	µg/L	210	49.5 J	65.4	91.2	<1	0.391 J	1.38
Tetrachloroethene	µg/L	2	1.45 J	0.95 J	0.676	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	17	5.40 J	3.49	4.6	<1	<1	<1
Trichloroethene	µg/L	150	105 J	64.2	91.4	<1	0.778 J	2
Vinyl chloride	µg/L	0.9 J	<1	<1 UJ	0.272	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-87

Analyte	Well ID	MW-87	MW-87
	Sample Date	4/26/2011	7/19/2011
UNIT			
1,1,2,2-Tetrachloroethane	µg/L	1.49	1.54
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	3.04	3.05
cis-1,2-Dichloroethene	µg/L	0.398 J	0.547 J
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.985 J	0.897 J
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-91

Analyte	Well ID	MW-91	MW-91	MW-91	MW-91	MW-91	MW-91
	Sample Date	10/27/2004	11/21/2005	11/7/2007	4/22/2009	10/14/2009	4/28/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<1	0.26 J	<1	0.92	0.678	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	9.35 J	4.8 J	3.29	0.449 J	0.479 J	0.391 J
Chloroform	µg/L	13.4 J	4.72	25.6	0.538	1.83	2.86
cis-1,2-Dichloroethene	µg/L	1.19 J	0.46 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.18 J	0.72 J	0.594	0.677 J	0.494 J	0.305 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	12.7 J	6.01	13.8	<1	0.567 J	1.41
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-128

	Well ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128
	Sample Date	7/28/2003	10/28/2003	4/29/2004	10/22/2004	6/15/2005	11/8/2007	4/20/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<11	<5	<1	<1	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<11	<5	<1	<1	<1
1,1-Dichloroethene	µg/L	5.32	3.41	5.1	54	153	0.795	24.9
Carbon tetrachloride	µg/L	<1	<1	<11	<5	<1	<1	<1
Chloroform	µg/L	<1	<1	<11	<5	<1	<1	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<11	<5	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	0.18 J	<5	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<11	<5	<1	<1	<1
Trichloroethene	µg/L	2.17	1.14	38	16	24.2	0.883	4.12
Vinyl chloride	µg/L	<1	<1	<11	<5	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-128

Analyte	Well ID	MW-128	MW-128
	Sample Date	10/15/2009	4/28/2011
UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-132

	Well ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
	Sample Date	10/23/2003	11/19/2003	12/18/2003	2/3/2004	4/6/2004	10/28/2004	11/20/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	896	11.2	78.5	523	180	1160 J	1190
1,1,2-Trichloroethane	µg/L	<12.5	<0.25	<0.25	1.85	<0.25	4.81 J	1.02
1,1-Dichloroethene	µg/L	<25	<0.5	<0.5	<0.5	<0.5	<1	<1
Carbon tetrachloride	µg/L	<12.5	<0.25	<0.25	<0.25	<0.25	<1	<1
Chloroform	µg/L	<6.25	<0.125	<0.125	<0.125	<0.125	0.731 J	0.42 J
cis-1,2-Dichloroethene	µg/L	20.3 J	0.397 J	1	4.57	1.25	47.8 J	13.3
Tetrachloroethene	µg/L	<12.5	<0.25	<0.25	0.336 J	0.782	6.98 J	5.96
trans-1,2-Dichloroethene	µg/L	23 J	<0.25	0.417 J	1.67	0.554 J	14.3 J	2.93
Trichloroethene	µg/L	476	6.7	32.9	102	42.2	1570	481
Vinyl chloride	µg/L	<12.5	<0.25	<0.25	<0.25	<0.25	<1	<1 UJ

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-132

	Well ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
	Sample Date	5/17/2007	11/8/2007	4/15/2008	8/19/2008	10/20/2008	4/23/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2400	92.4	25.1	0.599	0.277 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<4	1.67	0.469 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.8	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<4	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1.2	<1	<0.3	0.13	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	92	1.11	0.388 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	8.3	0.424	0.649 J	1.06	0.675 J	0.553 J	0.303 J
trans-1,2-Dichloroethene	µg/L	6.4	0.281	<1	<1	<1	<1	<1
Trichloroethene	µg/L	870	8.87	16.7	0.305	<1	0.749 J	<1
Vinyl chloride	µg/L	10	1.93	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-132

Analyte	Well ID	MW-132	MW-132
	Sample Date	3/29/2010	4/26/2011
UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	0.366	0.201 J
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	0.354 J	0.535 J
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	<1
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-144

	Well ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
	Sample Date	6/9/2004	8/12/2004	10/27/2004	1/27/2005	3/23/2005	6/15/2005	11/14/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	13000	7700	6230 J	4600	7700	5810 J	4970
1,1,2-Trichloroethane	µg/L	--	<250	7.05 J	10 J	14 J	9.64 J	14.1 J
1,1-Dichloroethene	µg/L	<420	<250	<1	<12	<25	<10	<20
Carbon tetrachloride	µg/L	<420	<250	1.47 J	<12	<25	<10	<20
Chloroform	µg/L	<420	<250	2.76 J	3.2 J	4.3 J	<10	<20
cis-1,2-Dichloroethene	µg/L	<420	68 J	74.1 J	69	72	70.2	54.3
Tetrachloroethene	µg/L	<420	<250	7.69 J	10 J	13 J	8.78 J	10.2
trans-1,2-Dichloroethene	µg/L	<420	<250	17.5 J	15	14 J	14.1	<20
Trichloroethene	µg/L	3200	2800	2060	2100	4500	2610	2280
Vinyl chloride	µg/L	<420	<250 J	<1	<12	<25	<10	<20

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-144

	Well ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
	Sample Date	4/12/2006	4/27/2006	10/19/2006	4/10/2007	10/8/2007	4/11/2008	4/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5040	4080	2520	1350	841	79.4	403
1,1,2-Trichloroethane	µg/L	9.04	8.94	60.4	20.4	8.75	0.461 J	1.06
1,1-Dichloroethene	µg/L	<1	<1	<10	<10	<1	<1	<1
Carbon tetrachloride	µg/L	1.03	0.9 J	<10	<10	1.59	<1	<1
Chloroform	µg/L	2.72 B	3.13	1.45 J	<3	1.7	1.77	1.19
cis-1,2-Dichloroethene	µg/L	83.9	88.9	98.2	33.5	26.3	2.31	12.9
Tetrachloroethene	µg/L	19.9 J	16.9	11.4	4.11 J	3.49	<1	1.56
trans-1,2-Dichloroethene	µg/L	7.28 J	7.04	19.2	3.39 J	2.24	<1	2.61
Trichloroethene	µg/L	2650	2790	1890	694	464	37.6	179
Vinyl chloride	µg/L	<1	<1 UJ	<10	<10	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-144

Analyte	Well ID	MW-144	MW-144	MW-144
	Sample Date	10/14/2009	3/26/2010	4/26/2011
UNIT				
1,1,2,2-Tetrachloroethane	µg/L	301	150	24.1
1,1,2-Trichloroethane	µg/L	0.661 J	0.321 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.501	0.316	0.28 J
cis-1,2-Dichloroethene	µg/L	6.81	3.26	1.01
Tetrachloroethene	µg/L	1.4	0.918 J	0.851 J
trans-1,2-Dichloroethene	µg/L	0.676 J	0.445 J	<1
Trichloroethene	µg/L	173	109	43.2
Vinyl chloride	µg/L	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-145

	Well ID	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145
	Sample Date	6/8/2004	8/16/2004	1/27/2005	3/23/2005	6/17/2005	11/17/2005	4/13/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	--	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-145

	Well ID	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145
	Sample Date	10/19/2006	4/9/2007	10/8/2007	4/14/2008	10/20/2008	4/14/2009	10/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1 J	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-145

Analyte	Well ID	MW-145	MW-145
	Sample Date	3/26/2010	4/26/2011
UNIT			
1,1,2,2-Tetrachloroethane	µg/L	0.274 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	0.682 J
Chloroform	µg/L	<0.3	0.585
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	<1	0.425 J
Vinyl chloride	µg/L	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-147

	Well ID	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147
	Sample Date	6/10/2004	8/17/2004	10/26/2004	1/27/2005	3/22/2005	6/17/2005	11/18/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	97	56	61.8 J	140	180	251 J	185
1,1,2-Trichloroethane	µg/L	--	<5.6	0.742 J	1.8	2.2	2.62	3.9
1,1-Dichloroethene	µg/L	<5.7	2.2 B	1.23	1.2	2.7	2.07	3.32
Carbon tetrachloride	µg/L	1.8 J	4.3 J	1.5	0.36 J	0.45 J	0.729 J	1.27
Chloroform	µg/L	7.5	12	13.4	3.4	3	5.94 B	5.1 B
cis-1,2-Dichloroethene	µg/L	70	57	60.6	48	39	65.1	95
Tetrachloroethene	µg/L	7.5	5.3 J	5.94	3.4	3.4	4.44	4.83
trans-1,2-Dichloroethene	µg/L	24	20	23.3	12	15	15.9	20.5
Trichloroethene	µg/L	160	120	130	77	73	124	121
Vinyl chloride	µg/L	<5.7	<5.6	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-147

	Well ID	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147
	Sample Date	4/12/2006	10/18/2006	4/10/2007	10/5/2007	4/11/2008	10/17/2008	4/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	311	87.9	634	198	22	0.373 J	<0.5
1,1,2-Trichloroethane	µg/L	4.36	1.39	9.28	4.47	<1	<1	<1
1,1-Dichloroethene	µg/L	1.76	0.657 J	1.49	5.65	<1	<1	<1
Carbon tetrachloride	µg/L	0.565 J	0.364 J	0.83 J	2.3	<1	<1	<1
Chloroform	µg/L	5.53 B	2.66	7.24	4.6	0.509	0.147 J	<0.3
cis-1,2-Dichloroethene	µg/L	74.8	41.2	155	120 J	6.15	0.401 J	<1
Tetrachloroethene	µg/L	3.61	3.92	12.2	8.97	7.92	2.95	<1
trans-1,2-Dichloroethene	µg/L	14.4	10.3	39.6	28.9	1	<1	<1
Trichloroethene	µg/L	106	81.3	278	169	53.9	3.1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-147

Analyte	Well ID	MW-147	MW-147	MW-147	MW-147
	Sample Date	10/14/2009	3/26/2010	9/23/2010	4/26/2011
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	0.199 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.313 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-153

	Well ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
	Sample Date	8/19/2004	6/16/2005	11/18/2005	4/13/2006	10/18/2006	4/10/2007	10/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1 J	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	9.1	3.73	4.56	5.4	4.87	5.91	5.61
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.368 J	0.334 J	0.302 J
Tetrachloroethene	µg/L	0.24 J	<1	<1	<1	<1	0.332 J	0.714 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	0.251 B	0.272 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-153

Analyte	Well ID	MW-153	MW-153	MW-153	MW-153	MW-153
	Sample Date	4/14/2008	10/20/2008	4/14/2009	10/14/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	6.37	5.31	5.16	2.99	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.341 J	<1	<1	<1	0.351 J
Tetrachloroethene	µg/L	0.445 J	0.272 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.469 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

- J Estimated results based on QC data or reported below RL
- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-169

	Well ID	MW-169	MW-169	MW-169	MW-169	MW-169	MW-169	MW-169
	Sample Date	12/12/2004	6/15/2005	11/18/2005	4/13/2006	10/19/2006	4/9/2007	10/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.8 B	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.26 J	<1	<1	<1	0.282 J	<1	<1
Tetrachloroethene	µg/L	<1	<1 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 J	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-169

	Well ID	MW-169	MW-169	MW-169	MW-169	MW-169
	Sample Date	4/11/2008	10/20/2008	6/8/2009	10/14/2009	4/28/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	0.4	0.547 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-170

Analyte	Well ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
	Sample Date	12/12/2004	6/16/2005	11/18/2005	4/13/2006	10/19/2006	4/9/2007	10/8/2007
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.3	4.06	4.37	2.84	3.52	3.67	3.06
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.42 B	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.485 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 J	<1 J	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-170

Analyte	Well ID	MW-170	MW-170	MW-170	MW-170	MW-170
	Sample Date	4/11/2008	10/20/2008	4/14/2009	10/14/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.43	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

- J Estimated results based on QC data or reported below RL
- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-171

	Well ID	MW-171	MW-171	MW-171	MW-171	MW-171	MW-171	MW-171
	Sample Date	12/13/2004	6/16/2005	11/18/2005	4/13/2006	10/19/2006	4/9/2007	10/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.544 J	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 J	<1 J	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-171

Analyte	Well ID	MW-171	MW-171	MW-171	MW-171	MW-171
	Sample Date	4/11/2008	10/20/2008	4/14/2009	10/14/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-172

	Well ID	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172
	Sample Date	4/25/2006	5/15/2007	11/9/2007	4/14/2008	8/18/2008	10/16/2008	4/16/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.35 J	1.5	<1	<1	<1	<1	<1
Chloroform	µg/L	5.88 J	13	0.375	0.143 J	<0.3	0.139 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.59	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.88	7	0.383	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-172

Analyte	Well ID	MW-172	MW-172	MW-172
	Sample Date	10/14/2009	3/29/2010	4/28/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	0.674 J	0.922 J	0.673 J
Chloroform	µg/L	<0.3	<0.3	0.271 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.296 J	0.339 J	0.503 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.324 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-174

	Sample Name	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174
	Sample Date	11/16/2005	11/19/2005	5/14/2007	11/9/2007	4/15/2008	8/18/2008	10/16/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.37	<1	0.7	1.4	0.629
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.06 J	2.93	5.9	2.93	<1	<1	<1
Chloroform	µg/L	37.4	31.4	68	30.6	0.666	0.345	0.154 J
cis-1,2-Dichloroethene	µg/L	0.28 J	<1	0.63	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.99 J	1.05	1.9	0.55	0.297 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	0.28	<1	<1	<1	<1
Trichloroethene	µg/L	16.9	14.2	33	11.8	<1	<1	<1
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-174

	Sample Name	MW-174	MW-174	MW-174	MW-174	MW-174
	Sample Date	4/16/2009	10/13/2009	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	2.08	0.315 J	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.607 J	0.988 J	1.2	0.805 J	0.966 J
Chloroform	µg/L	1.47	1.54	0.337	0.243 J	0.282 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.347 J	0.591 J	0.651 J	0.413 J	0.51 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.658 J	0.485 J	<1	0.392 J	0.418 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-176

Analyte	Well ID	MW-176	MW-176	MW-176	MW-176	MW-176	MW-176
	Sample Date	11/18/2005	11/8/2007	4/23/2009	10/13/2009	3/26/2010	4/26/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.415	<1	<1	<1	<1
Chloroform	µg/L	0.21 J	0.246	0.166 J	<0.3	0.147 J	0.208 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.44 J	0.287	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.73 J	3.07	0.579 J	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-178

Analyte	Well ID	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178
	Sample Date	11/19/2005	5/17/2007	11/9/2007	4/15/2008	8/18/2008	10/20/2008	4/20/2009
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.18 J	0.21	<1	<0.3	0.135	0.125 J	0.291 J
cis-1,2-Dichloroethene	µg/L	0.44 J	1.7	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.52	2.8	2.31	0.726 J	0.824	0.419 J	<1
trans-1,2-Dichloroethene	µg/L	0.37 J	0.95	<1	<1	<1	<1	<1
Trichloroethene	µg/L	46.9	130	2.11	<1	0.488	0.373 J	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-178

Analyte	Well ID	MW-178	MW-178	MW-178
	Sample Date	10/14/2009	3/26/2010	4/28/2011
UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.602	1.03	1.43 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.263 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-179

Analyte	Well ID	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179
	Sample Date	11/19/2005	5/17/2007	11/8/2007	4/15/2008	8/18/2008	10/20/2008	4/17/2009
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	0.326	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.16 J	<0.3	<1	<0.3	0.125	0.131 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.8 J	1.1	0.905	1.77	0.597	0.627 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.28 J	1.8	2.11	0.264 J	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-179

Analyte	Well ID	MW-179	MW-179	MW-179
	Sample Date	10/14/2009	3/26/2010	4/26/2011
UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	0.136 J	0.175 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.281 J	0.383 J	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-180

Analyte	Well ID	MW-180	MW-180	MW-180	MW-180	MW-180	MW-180	MW-180
	Sample Date	11/20/2005	5/21/2007	11/8/2007	4/16/2008	8/20/2008	10/21/2008	4/15/2009
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	44.2 J	21	<1	0.763	1.35	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	0.558	2.04	0.766 J
Carbon tetrachloride	µg/L	0.72 J	0.26	<1	<1	<1	<1	<1
Chloroform	µg/L	2.04	1.6	<1	<0.3	<0.3	<0.3	0.136 J
cis-1,2-Dichloroethene	µg/L	2.51	23	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	5.02	2.8	<1	<1	0.766	1.88	0.948 J
trans-1,2-Dichloroethene	µg/L	1.7	9.6	<1	<1	<1	<1	<1
Trichloroethene	µg/L	24.4	78	<1	<1	0.978	1.8	0.893 J
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-180

Analyte	Well ID	MW-180	MW-180	MW-180
	Sample Date	10/13/2009	3/26/2010	4/26/2011
UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.154 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-182

Analyte	Well ID	MW-182	MW-182	MW-182	MW-182	MW-182
	Sample Date	11/19/2005	11/8/2007	4/20/2009	10/15/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.77 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-184

	Well ID	MW-184	MW-184	MW-184	MW-184	MW-184
	Sample Date	11/18/2005	11/9/2007	4/23/2009	10/14/2009	4/28/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	1.74	<1	<0.5	5.06	2.36
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	8.08	4.19	4.52	13.4	2.23
Chloroform	µg/L	32.6	7.79	2.94	117	13.3
cis-1,2-Dichloroethene	µg/L	1.43	1.2	0.424 J	5.61	1.06
Tetrachloroethene	µg/L	0.69 J	<1	0.393 J	4.98	0.729 J
trans-1,2-Dichloroethene	µg/L	0.33 J	0.27	<1	1.63	<1
Trichloroethene	µg/L	12.6	9.47	2.27	84	7.77
Vinyl chloride	µg/L	<1 UJ	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-185

Analyte	Well ID	MW-185	MW-185	MW-185	MW-185	MW-185
	Sample Date	11/18/2005	11/8/2007	4/21/2009	10/14/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	0.74 J	<1	0.334 J	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.88	0.448	0.649 J	<1	0.334 J
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-186

Analyte	Well ID	MW-186	MW-186	MW-186	MW-186	MW-186
	Sample Date	11/22/2005	11/9/2007	4/21/2009	10/14/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<1	0.43	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.37	0.819	4.92	1.83	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-187

	Well ID	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187
	Sample Date	4/25/2006	5/16/2007	11/8/2007	4/16/2008	8/20/2008	10/16/2008	4/21/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	0.141	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.8	<1	<1	<1	<1	<1
Chloroform	µg/L	0.13 J	0.29	<1	<0.3	0.139	0.183 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	0.4	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.36	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.26 J	3.7	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-187

Analyte	Well ID	MW-187	MW-187	MW-187
	Sample Date	10/15/2009	3/26/2010	4/28/2011
UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.162 J	0.149 J	0.265 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.253 J	<1	0.312 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-190

	Well ID	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
	Sample Date	4/26/2006	11/9/2007	4/23/2009	10/14/2009	3/26/2010	4/26/2011
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	4410	1040	276	28.1	23.5	10.4
1,1,2-Trichloroethane	µg/L	8.84	3.38	0.45 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.63 J	1.17	<1	<1	<1	<1
Chloroform	µg/L	2.73	1.32	0.562	0.135 J	0.186 J	0.247 J
cis-1,2-Dichloroethene	µg/L	80.5 J	33.3	3.4	0.547 J	0.747 J	0.405 J
Tetrachloroethene	µg/L	12.5	6.01	1.37	0.588 J	0.707 J	0.642 J
trans-1,2-Dichloroethene	µg/L	6.48	1.56	0.416 J	<1	<1	<1
Trichloroethene	µg/L	2720	705	109	27.6	31.9	19.4
Vinyl chloride	µg/L	<1 UJ	<1	<1 UJ	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-221

	Well ID	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221
	Sample Date	5/21/2007	11/9/2007	4/16/2008	8/20/2008	10/21/2008	4/16/2009	10/13/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	110	0.692	<0.5	0.147	0.329 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	1.9	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.4	0.368	0.167 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	52	0.268	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.9	1.09	0.893 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	10	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	140	2.33	<1	1.19	0.501 J	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-221

	Well ID	MW-221	MW-221	MW-221
	Sample Date	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.134 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-222

	Well ID	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222
	Sample Date	5/16/2007	11/9/2007	4/15/2008	8/19/2008	10/20/2008	4/16/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	340	1130	12.7	1.36	47.1	1.19	<0.5
1,1,2-Trichloroethane	µg/L	<5	8.97	7.57	0.492	0.648 J	<1	<1
1,1-Dichloroethene	µg/L	<5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<5	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1.5	0.358	0.156 J	<0.3	<0.3	<0.3	0.269 J
cis-1,2-Dichloroethene	µg/L	150	25.4	10.4	4.12	4.51	<1	<1
Tetrachloroethene	µg/L	5.7	1.23	0.312 J	0.337	0.484 J	0.377 J	<1
trans-1,2-Dichloroethene	µg/L	66	5.2	0.301 J	<1	0.376 J	<1	<1
Trichloroethene	µg/L	1100	351	5.34	1.18	5.81	1.87	1.04
Vinyl chloride	µg/L	<5	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-222

	Well ID	MW-222	MW-222	MW-222
	Sample Date	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.396	0.523	0.281 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.313 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	2.54	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-223

	Well ID	MW-223	MW-223	MW-223	MW-223	MW-223	MW-223	MW-223
	Sample Date	5/16/2007	11/9/2007	4/15/2008	8/18/2008	10/17/2008	4/17/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	14	30.3	0.323 J	0.366	0.913	0.778	0.227 J
1,1,2-Trichloroethane	µg/L	3.1	2.81	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.39	0.283	<1	<1	<1	<1	<1
Chloroform	µg/L	0.95	0.838	0.439	0.252	0.249 J	0.177 J	0.551
cis-1,2-Dichloroethene	µg/L	15	5.56	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.7	0.944	0.343 J	0.262	0.457 J	0.813 J	0.319 J
trans-1,2-Dichloroethene	µg/L	3.7	1.21	<1	<1	<1	<1	<1
Trichloroethene	µg/L	500	144	4.55	2.32	3.56	7.38	4.01
Vinyl chloride	µg/L	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-223

	Well ID	MW-223	MW-223	MW-223
	Sample Date	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.75	2	1.19
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.447 J	<1	0.294 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	1.49	0.25 J	0.392 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-224

	Well ID	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224
	Sample Date	5/16/2007	11/10/2007	4/16/2008	8/18/2008	10/20/2008	4/15/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	140	<1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.18	0.17	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	4.8	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.7	2.23	1.33	0.771	0.628 J	0.436 J	0.451 J
trans-1,2-Dichloroethene	µg/L	1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	92	13.4	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-224

	Well ID	MW-224	MW-224	MW-224
	Sample Date	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.186 J	1.01	1.03
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-225

	Well ID	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225
	Sample Date	5/15/2007	11/9/2007	4/16/2008	8/20/2008	10/17/2008	4/20/2009	10/13/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	15	75.9	21.3	13.9	22.8	4.03	2.47
1,1,2-Trichloroethane	µg/L	0.62	2.34	0.544 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.78	0.517	0.275 J	0.155	0.149 J	<0.3	0.198 J
cis-1,2-Dichloroethene	µg/L	8.6	11.2	1.71	0.889	0.321 J	<1	<1
Tetrachloroethene	µg/L	2.3	1.19	0.616 J	0.644	0.652 J	0.727 J	0.566 J
trans-1,2-Dichloroethene	µg/L	2.2	1.21	<1	<1	<1	<1	<1
Trichloroethene	µg/L	320	140	39.6	19.6	8.66	9.46	11
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-225

	Well ID	MW-225	MW-225	MW-225
	Sample Date	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	0.926	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.212 J	0.667	0.803
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.679 J	0.252 J	0.494 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	8.58	2	1.75
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-226

	Well ID	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226
	Sample Date	5/15/2007	11/9/2007	4/15/2008	8/20/2008	10/20/2008	4/17/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	220	9.56	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	1.4	1.09	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<2	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.72	0.156	0.155 J	0.157	0.155 J	0.133 J	0.184 J
cis-1,2-Dichloroethene	µg/L	19	2.57	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	7.1	0.559	<1	0.417	0.533 J	0.794 J	0.75 J
trans-1,2-Dichloroethene	µg/L	4.5	0.486	<1	<1	<1	<1	<1
Trichloroethene	µg/L	740	24.7	0.855 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<2	1.24	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-226

Analyte	Well ID	MW-226	MW-226	MW-226
	Sample Date	3/26/2010	4/26/2011	7/19/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	<0.3	1.52	0.463
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.751 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-227

	Well ID	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227
	Sample Date	5/14/2007	11/10/2007	4/16/2008	8/18/2008	10/17/2008	4/21/2009	10/13/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	120	118	28.1	5.14	10.7	15.1	<0.5
1,1,2-Trichloroethane	µg/L	6.1	7.33	1.02	0.538	0.982 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	43	33.7	4.02	3.52	7.26	0.524 J	<1
Chloroform	µg/L	1100	1080	110	30.9	134	7.5	0.322
cis-1,2-Dichloroethene	µg/L	40	58.5	6.33	2.89	6.4	0.328 J	<1
Tetrachloroethene	µg/L	22	13.5	2.25	1.81	2.7	0.345 J	0.267 J
trans-1,2-Dichloroethene	µg/L	8.5	10.9	1	0.37	1.04	<1	<1
Trichloroethene	µg/L	420	387	40.8	28.4	61.8	3.56	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-227

	Well ID	MW-227	MW-227	MW-227
	Sample Date	3/26/2010	4/26/2011	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	0.682 J	0.614 J	0.567 J
Chloroform	µg/L	<0.3	0.361	0.838
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.543 J	0.551 J	0.614 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.378 J
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-228

	Well ID	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228
	Sample Date	5/14/2007	11/10/2007	4/16/2008	8/18/2008	10/17/2008	4/16/2009	10/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	46	5.07	0.509	0.22	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	0.99	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.4	<1	<1	<1	<1	<1	0.627 J
Chloroform	µg/L	120	4.51	0.387	2.81	0.155 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.6	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.8	<1	<1	<1	<1	<1	0.399 J
trans-1,2-Dichloroethene	µg/L	0.38	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	42	0.974	<1	0.911	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-228

Analyte	Well ID	MW-228	MW-228	MW-228
	Sample Date	3/29/2010	4/28/2011	7/19/2011
	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	0.756 J	0.545 J	0.327 J
Chloroform	µg/L	<0.3	0.299 B	0.265 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	0.445 J	0.614 J	0.451 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-231

	Well ID	MW-231	MW-231	MW-231	MW-231	MW-231
	Sample Date	4/14/2008	10/22/2008	4/17/2009	10/14/2009	4/28/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-234

Analyte	Well ID	MW-234	MW-234	MW-234	MW-234	MW-234
	Sample Date	4/14/2008	10/22/2008	4/17/2009	10/14/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	0.469 J	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-235

	Well ID	MW-235	MW-235	MW-235	MW-235	MW-235
	Sample Date	4/15/2008	10/22/2008	4/17/2009	10/15/2009	4/28/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

DQE Flags:

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-237

Analyte	Well ID	MW-237	MW-237	MW-237	MW-237	MW-237
	Sample Date	4/11/2008	10/22/2008	4/16/2009	10/15/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	2.2	2.02	2.17	1.77	1.62
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.181 J	0.162 J	0.129 J	<0.3	0.164 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	0.294 J
Tetrachloroethene	µg/L	0.256 J	0.261 J	0.286 J	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-239

Analyte	Well ID	MW-239	MW-239	MW-239	MW-239	MW-239
	Sample Date	4/11/2008	10/21/2008	4/16/2009	10/15/2009	4/28/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.605	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	0.76 J	<1	0.536 J	0.899 J	1.51
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	0.24 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.278 J	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1 UJ	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-240

Analyte	Well ID	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240
	Sample Date	11/7/2007	4/11/2008	10/21/2008	4/17/2009	10/14/2009	4/28/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<0.3	<0.3	<0.3	<0.3	0.227 B
cis-1,2-Dichloroethene	µg/L	1.85	1.43	1.01	0.922 J	0.86 J	0.569 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.42	2.13	1.63	1.56	1.73	1.27
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

APPENDIX C-2

**LTM WATER LEVEL WELLS
HISTORICAL CVOC RESULTS**

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-03

	Well ID	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03
	Sample Date	10/28/2004	11/21/2005	5/14/2007	11/7/2007	4/16/2008	8/19/2008	10/21/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	78.4 J	96.2	67	<1	<0.5	0.425	2.46
1,1,2-Trichloroethane	µg/L	1.3 J	1.66	1.5	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	34.5 J	9.47	1.3	2.89	1.54	10.4	17.3
Carbon tetrachloride	µg/L	0.53 J	1.56 J	0.82	<1	<1	<1	<1
Chloroform	µg/L	3.53 J	12.4	12	3.07	0.147 J	0.229	0.212 J
cis-1,2-Dichloroethene	µg/L	45 J	82.7	59	<1	<1	0.348	<1
Tetrachloroethene	µg/L	12.3 J	8.19	1.8	2.63	2.71	5.71	9.5
trans-1,2-Dichloroethene	µg/L	10.4 J	19.4	12	<1	<1	<1	<1
Trichloroethene	µg/L	83.4 J	138	87	2.18	2.04	5.8	10.1
Vinyl chloride	µg/L	<1	<1 UJ	<	<1	<1	<1	<1

Notes:

µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-03

	Well ID	MW-03	MW-03	MW-03
	Sample Date	4/17/2009	10/13/2009	7/19/2011
Analyte	UNIT			
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1
1,1-Dichloroethene	µg/L	10.7	13.4	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Chloroform	µg/L	0.14 J	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	0.47 J	<1
Tetrachloroethene	µg/L	9.13	10.1	1.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1
Trichloroethene	µg/L	9.26	10.4	1.44
Vinyl chloride	µg/L	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-07

Analyte	Well ID	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
	Sample Date	11/15/1993	6/21/1997	9/27/1997	4/2/1998	10/14/1998	7/28/2003	10/28/2003
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<10	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	36.5	26	50	47	25	4.06	40.9
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<10	2.99	1.23
Chloroform	µg/L	12.8	8 J	9 J	2 J	7 J	911	139
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	2.98	<1
Tetrachloroethene	µg/L	35	32	82	78	47	32.3	42.6
trans-1,2-Dichloroethene	µg/L	--	--	--	--	--	0.8 J	<1
Trichloroethene	µg/L	13.7	16	32	31	21	46.3	27.6
Vinyl chloride	µg/L	<10	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-07

	Well ID	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
	Sample Date	4/28/2004	10/20/2004	6/14/2005	11/18/2005	4/12/2006	10/18/2006	4/9/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1.2	<1.4	<1	<1	<1	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1.2	<1.4	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	32	17	15.3	18.1	27.4	18.5	22.8
Carbon tetrachloride	µg/L	0.29 J	<1.4	<1	<1	<1	0.273 J	0.641 J
Chloroform	µg/L	8	0.44 J	<1	1.07 B	0.501 B	4.49	20
cis-1,2-Dichloroethene	µg/L	<1.2	<1.4	<1	<1	<1	<1	0.326 J
Tetrachloroethene	µg/L	50	18	20.6	26.3	50.7	34.5	39.4
trans-1,2-Dichloroethene	µg/L	<1.2 J	<1.4	<1	<1	<1	<1	<1
Trichloroethene	µg/L	32	14	14.9	15.4	26.5	19.6	24.7
Vinyl chloride	µg/L	<1.2	<1.4	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-07

	Well ID	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
	Sample Date	5/14/2007	10/8/2007	4/14/2008	8/19/2008	10/17/2008	4/15/2009	10/13/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	--	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	--	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	20	12.8	24.8	26.8	32.7	35.6	24
Carbon tetrachloride	µg/L	--	0.48 J	<1	<1	<1	<1	<1
Chloroform	µg/L	0.55	13.8	0.273 J	0.288	0.299 J	0.357	0.263 J
cis-1,2-Dichloroethene	µg/L	0.26	<1	<1	0.282	0.367 J	0.472 J	0.441 J
Tetrachloroethene	µg/L	47	24.3	56.2	61.2	63.9	70.6	62.8
trans-1,2-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	25	16	29.4	30.9	38.9	40.9	40.4
Vinyl chloride	µg/L	--	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-08

Analyte	Well ID	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08	MW-08
	Sample Date	11/17/1993	6/21/1997	9/26/1997	3/30/1998	10/13/1998	7/28/2003	10/28/2003
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	--	<10	<10	2 J	<10	<1	<1
1,1,2-Trichloroethane	µg/L	--	<10	<10	<10	<10	<1	<1
1,1-Dichloroethene	µg/L	34.4	12	20	19	22	1.58	1.43
Carbon tetrachloride	µg/L	--	<10	<10	<10	<10	<1	<1
Chloroform	µg/L	--	<10	<10	<10	<10	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Tetrachloroethene	µg/L	35.2	16	27	24	33	1.6	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	--	<1	<1
Trichloroethene	µg/L	15.3	9 J	13	12	16	1.51	<1
Vinyl chloride	µg/L	--	<10	<10	<10	<10	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-08

	Well ID	MW-08	MW-08	MW-08	MW-08
	Sample Date	4/28/2004	10/20/2004	11/21/2005	11/7/2007
Analyte	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.26 J	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.3	1.1	3.85	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	0.158
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.37 J	1.4	5.28	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	0.85 J	1.3	5.68	<1
Vinyl chloride	µg/L	<1	<1	<1 J	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-10

	Well ID	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
	Sample Date	11/11/1993	6/21/1997	9/26/1997	3/28/1998	10/14/1998	10/28/2004	11/21/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	32.1	24 J	2 J	<10	2 J	3.43 J	3.41
1,1,2-Trichloroethane	µg/L	4.14	<40	<10	<10	<10	0.610 J	0.89 J
1,1-Dichloroethene	µg/L	88.6	48	72	41	19	6.84	5.96
Carbon tetrachloride	µg/L	1.32	8 J	<10	<10	3 J	2.73	2.35 J
Chloroform	µg/L	4.22	60	<10	1 J	17	21.3	15.2
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	185	604
Tetrachloroethene	µg/L	143	110	180	100	64	13.9	10.6
trans-1,2-Dichloroethene	µg/L	118	--	--	--	--	64.7	258
Trichloroethene	µg/L	1020	450	100	63	190	415	1760
Vinyl chloride	µg/L	--	<40	<10	<10	<10	7.08	30.9 J

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-10

Analyte	Well ID	MW-10	MW-10	MW-10	MW-10
	Sample Date	8/19/2008	10/21/2008	4/15/2009	10/15/2009
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	1.39	1.01	29	14.6
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	0.769 J	1.07
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	0.373	0.288 J	0.72	1.15
cis-1,2-Dichloroethene	µg/L	0.691	0.992 J	1.04	0.733 J
Tetrachloroethene	µg/L	0.343	<1	1.41	3.19
trans-1,2-Dichloroethene	µg/L	<1	0.432 J	0.327 J	<1
Trichloroethene	µg/L	2.22	3.23	7.11	6.79
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-28

Analyte	Well ID	MW-28	MW-28
	Sample Date	11/19/1993	2/7/1996
	UNIT		
1,1,2,2-Tetrachloroethane	µg/L	ND	ND
1,1,2-Trichloroethane	µg/L	ND	ND
1,1-Dichloroethene	µg/L	ND	ND
Carbon tetrachloride	µg/L	ND	ND
Chloroform	µg/L	ND	ND
cis-1,2-Dichloroethene	µg/L	ND	ND
Tetrachloroethene	µg/L	ND	ND
trans-1,2-Dichloroethene	µg/L	ND	--
Trichloroethene	µg/L	ND	ND
Vinyl chloride	µg/L	ND	ND

Notes:

-- not analyzed

µg/L micrograms per liter

ND Not Detected, RL unavailable

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-42

	Well ID	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42
	Sample Date	6/21/1997	9/27/1997	3/27/1998	10/17/1998	2/15/2001	2/19/2001	10/3/2001
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	<10	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-42

	Well ID	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42
	Sample Date	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004	11/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1 J	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	0.173
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1 J	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.689
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-43

	Well ID	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43
	Sample Date	10/21/1998	10/23/1998	10/24/1998	11/8/1998	2/19/2001	10/3/2001	4/10/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	9.59	<1	<1
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
Carbon tetrachloride	µg/L	<10	<10	<10	<10	<1	<1	<1
Chloroform	µg/L	2 J	<10	<10	<10	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<10	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<10	1.02	<1	<1
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-43

	Well ID	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43
	Sample Date	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/21/2004	6/17/2005	11/17/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1 J	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-43

	Well ID	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43
	Sample Date	4/12/2006	10/19/2006	4/10/2007	10/5/2007	4/11/2008	10/20/2008	4/14/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field - Defense Depot Memphis, Tennessee

MW-43

Analyte	Well ID	MW-43
	Sample Date	10/15/2009
Analyte	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
 µg/L micrograms per liter
 RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
 < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-45

	Well ID	MW-45	MW-45	MW-45	MW-45	MW-45
	Sample Date	2/8/1996	6/20/1997	9/25/1997	3/27/1998	10/16/1998
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	ND	<10	<10	<10	<10
1,1,2-Trichloroethane	µg/L	ND	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	2 J	<10	1 J	<10	<10
Carbon tetrachloride	µg/L	ND	<10	<10	<10	<10
Chloroform	µg/L	ND	<10	<10	<10	<10
Tetrachloroethene	µg/L	ND	<10	<10	<10	<10
Trichloroethene	µg/L	ND	<10	<10	<10	<10
Vinyl chloride	µg/L	ND	<10	<10	<10	<10

Notes:

µg/L micrograms per liter
ND Not Detected, RL unavailable
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-67

	Well ID	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67
	Sample Date	2/16/2000	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003	4/29/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1 J
Trichloroethene	µg/L	1.26	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-67

	Well ID	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67	MW-67
	Sample Date	10/21/2004	6/17/2005	12/8/2005	4/12/2006	10/19/2006	4/10/2007	10/5/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-67

Analyte	Well ID	MW-67	MW-67	MW-67	MW-67
	Sample Date	4/11/2008	10/20/2008	4/14/2009	10/15/2009
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.251 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	0.292 J	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-68

	Well ID	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68
	Sample Date	5/18/2000	8/23/2000	11/8/2000	2/14/2001	10/3/2001	4/10/2002	10/1/2002
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	6.55	<1	<1	4.15	1.01	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	9.01	<1	9.01
Carbon tetrachloride	µg/L	0.89 J	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	6.44	<1	<1	<1	3.5	<1	7.88
cis-1,2-Dichloroethene	µg/L	13.7	31	1.9	4.38	3.12	<1	<1
Tetrachloroethene	µg/L	2.07	8.35	0.4 J	0.92 J	4.3	<1	4.3
trans-1,2-Dichloroethene	µg/L	13.1	9.36	1.4	4.14	0.78 J	<1	<1
Trichloroethene	µg/L	44.5	48.9	3.21	9.67	6.56	<1	3.85
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-68

Analyte	Well ID	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68
	Sample Date	4/8/2003	10/28/2003	4/29/2004	10/21/2004	6/15/2005	11/17/2005	4/12/2006
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.85 J	81	1.52 B	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<2.5	<33	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	1.5	<33	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	0.21 J	<33 J	<1	<1	<1
Chloroform	µg/L	<1	<1	0.78 J	<33	<1	<1	0.564 B
cis-1,2-Dichloroethene	µg/L	<1	<1	<2.5	<33	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	2.1	<33	<1 J	<1	0.696 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<2.5	<33	<1	<1	<1
Trichloroethene	µg/L	<1	<1	1.4	20 J	0.512 J	<1	0.608 J
Vinyl chloride	µg/L	<1	<1	<2.5	<33	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-68

	Well ID	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68	MW-68
	Sample Date	10/19/2006	4/11/2007	5/17/2007	10/8/2007	4/14/2008	8/20/2008	10/17/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5.67	1.45	5.5	1.51	0.24 B	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	--	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	--	<1	<1	<1	0.727 J
Carbon tetrachloride	µg/L	0.951 J	<1	--	<1	<1	<1	<1
Chloroform	µg/L	1.57	0.263 J	0.43	0.775	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.06	0.473 J	4.2	2.36	<1	<1	<1
Tetrachloroethene	µg/L	1.63	0.506 J	0.69	0.738 J	<1	<1	0.482 J
trans-1,2-Dichloroethene	µg/L	0.544 J	0.261 J	1.3	0.585 J	<1	<1	<1
Trichloroethene	µg/L	5.76	2.58	14	4.73	0.36 J	<1	0.573 J
Vinyl chloride	µg/L	<1	<1	--	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-68

Analyte	Well ID	MW-68	MW-68
	Sample Date	4/14/2009	10/14/2009
	UNIT		
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	1.82	1.16
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	0.147 J	0.159 J
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	1.75	1.55
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	1.41	1.16
Vinyl chloride	µg/L	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-80

	Well ID	MW-80	MW-80	MW-80	MW-80	MW-80	MW-80	MW-80
	Sample Date	2/15/2001	2/19/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	1.07	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-80

Analyte	Well ID	MW-80	MW-80	MW-80	MW-80	MW-80
	Sample Date	4/29/2004	8/17/2004	10/22/2004	11/17/2005	11/8/2007
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<1 J	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1 J	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1 J	<1	<1	<1	<1
Chloroform	µg/L	<1 J	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	<1 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1 J	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1 J	<1	<1	<1	<1
Trichloroethene	µg/L	<1 J	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 J	<1	<1	<1 J	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-126

	Well ID	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126
	Sample Date	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/22/2004	11/17/2005	11/7/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	0.12 J	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-127

	Well ID	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127
	Sample Date	10/1/2002	4/8/2003	10/28/2003	4/29/2004	10/22/2004	11/17/2005	11/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	0.18 J	<1	0.17
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.9
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-129

	Well ID	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129
	Sample Date	7/28/2003	10/28/2003	4/29/2004	10/22/2004	11/22/2005	11/8/2007
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<2.5	0.19 J	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<2.5	<1	<1
1,1-Dichloroethene	µg/L	41	42	27	32	36	32.7
Carbon tetrachloride	µg/L	<1	<1	<1	<2.5	<1	<1
Chloroform	µg/L	<1	<1	<1	<2.5	<1	<1
cis-1,2-Dichloroethene	µg/L	<1	<1	0.27 J	<2.5	0.33 J	0.36
Tetrachloroethene	µg/L	8.85	26.1	9.6	9.2	25.4	30.2
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<2.5	<1	<1
Trichloroethene	µg/L	9.71	13.4	12	14	19.3	19.1
Vinyl chloride	µg/L	<1	<1	<1	<2.5	<1 J	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-130

	Well ID	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
	Sample Date	7/28/2003	10/28/2003	4/29/2004	10/22/2004	6/15/2005	11/17/2005	4/12/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<5	<3.3	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<5	<3.3	<1	<1	<1
1,1-Dichloroethene	µg/L	41.1	42.2	57	35	22.6	28.3	52.8
Carbon tetrachloride	µg/L	<1	<1	<5	<3.3	<1	<1	<1
Chloroform	µg/L	<1	<1	<5	<3.3	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.54 J	0.67 J	<5	0.63 J	<1	<1	<1
Tetrachloroethene	µg/L	71.6	80.3	88	63	48.8	57.4	114
trans-1,2-Dichloroethene	µg/L	<1	<1	<5 J	<3.3	<1	<1	<1
Trichloroethene	µg/L	54	64	76	50	37.9	43.5	57.7
Vinyl chloride	µg/L	<1	<1	<5	<3.3	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-130

	Well ID	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
	Sample Date	10/20/2006	4/10/2007	10/5/2007	4/11/2008	10/20/2008	4/15/2009	10/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	61.6	70	74	73.4	80.2	60.3	29 J
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.256 J	0.315	0.291 J	0.27 J	0.296 J	0.237 J	0.206 J
cis-1,2-Dichloroethene	µg/L	0.766 J	0.818 J	0.82 J	0.789 J	0.799 J	0.925 J	0.856 J
Tetrachloroethene	µg/L	112	154	147	196	140	127	68.5 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	60.5	71.2	67.4	71	71.8	75.1	61.7 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-134

	Well ID	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134
	Sample Date	10/23/2003	11/18/2003	12/18/2003	2/3/2004	4/6/2004	10/28/2004	11/20/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5.45	859	46.5	44.4	16.4	160	98
1,1,2-Trichloroethane	µg/L	<0.5	1.53	<0.5	4.02	0.354 J	11.3 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	µg/L	0.329 J	13	1.62	1.52	0.261 J	5.39 J	0.84 J
Tetrachloroethene	µg/L	0.458 J	<0.5	<0.5	0.394 J	0.756	1.51 J	1.83
trans-1,2-Dichloroethene	µg/L	0.413 J	3.24	0.647 J	0.644 J	<1	1.95 J	0.41 J
Trichloroethene	µg/L	4.14	104	32.1	17.7	7.64	169 J	113
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1 J

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-134

	Well ID	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134
	Sample Date	5/17/2007	11/8/2007	4/16/2008	8/19/2008	10/20/2008	4/17/2009	10/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	240	4.47	0.717	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	--	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	--	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	--	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.29	<1	<0.3	<0.3	<0.3	<0.3	0.128 J
cis-1,2-Dichloroethene	µg/L	7.1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.1	0.42	0.488 J	0.535	0.801 J	0.328 J	0.501 J
trans-1,2-Dichloroethene	µg/L	1.8	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	150	1.03	1.08	<1	<1	2.13	0.262 J
Vinyl chloride	µg/L	--	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-134

Analyte	Well ID	MW-134
	Sample Date	7/19/2011
Analyte	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.668
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	0.603 J
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-154

	Well ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
	Sample Date	8/17/2004	6/17/2005	11/17/2005	4/12/2006	10/19/2006	4/10/2007	10/5/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.437 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-154

	Well ID	MW-154	MW-154	MW-154	MW-154
	Sample Date	4/14/2008	10/20/2008	4/14/2009	10/15/2009
Analyte	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-167

Analyte	Well ID	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
	Sample Date	11/21/2004	1/25/2005	3/22/2005	6/16/2005	11/18/2005	4/13/2006	10/18/2006
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	2.67	<1	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.1 B	0.47 J	0.82 B	<1	<1	<1	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	0.961 J	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-167

	Well ID	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
	Sample Date	4/9/2007	10/5/2007	4/11/2008	10/20/2008	4/14/2009	10/15/2009
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.34 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-220

	Well ID	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
	Sample Date	5/18/2007	11/9/2007	4/15/2008	8/20/2008	10/21/2008	4/23/2009	10/13/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	780	<1	<0.5	<0.5	0.267 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	9.3	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	18	7.93	4.54	37	44.3	45.9	33.1
Carbon tetrachloride	µg/L	--	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	2.5	<1	<0.3	0.201	0.217 J	0.238 J	0.184 J
cis-1,2-Dichloroethene	µg/L	420	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	16	7.67	8.14	16.4	13.7	19.8	19
trans-1,2-Dichloroethene	µg/L	76	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	530	6.73	4.61	14.6	15.2	20.2	18.7
Vinyl chloride	µg/L	0.63	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-220

Analyte	Well ID	MW-220
	Sample Date	7/19/2011
Analyte	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	2.66
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	1.95
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	4.94
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-230

Analyte	Well ID	MW-230	MW-230	MW-230	MW-230	MW-230
	Sample Date	10/18/2007	4/15/2008	10/22/2008	4/15/2009	10/14/2009
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	27.1	18.2	32.7	30.3	28.1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.199 J	0.192 J	0.276 J	0.236 J	0.188 J
cis-1,2-Dichloroethene	µg/L	1.29	0.834 J	1.27	1.09	0.886 J
Tetrachloroethene	µg/L	87.2	76.1	100	89.9	88.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	83.3	74.6	98.4	98.2	83.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

APPENDIX C-3
PERFORMANCE MONITORING WELLS
HISTORICAL CVOC RESULTS

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-54

Analyte	Well ID	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	6/20/1997	9/25/1997	3/28/1998	10/16/1998	2/3/1999	5/25/1999	8/26/1999
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1,2-Trichloroethane	µg/L	<10	<10	<10	<10	<1	<1	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<1	<1	<10
Carbon tetrachloride	µg/L	<10	1 J	2 J	<10	<1	3.53	12.8
Chloroform	µg/L	<10	<10	1 J	<10	<1	<1	5.04
cis-1,2-Dichloroethene	µg/L	--	--	--	--	3.6	3.9	10.3
Tetrachloroethene	µg/L	<10	2 J	2 J	<10	<1	<1	<10
trans-1,2-Dichloroethene	µg/L	--	--	--	--	<1	<1	<10
Trichloroethene	µg/L	58	150	180	79	60.6	61	50
Vinyl chloride	µg/L	<10	<10	<10	<10	<1	<1	<10

Notes:

-- not analyzed

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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

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UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-54

	Well ID	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	11/3/1999	2/15/2000	3/23/2000	5/17/2000	8/22/2000	11/7/2000	10/3/2001
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	40.1	23.6	19	<1	4.9	22.7	8.67
1,1,2-Trichloroethane	µg/L	1.15	0.9 J	1	<1	0.56 J	1.24	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5.02	14.7	19	4.46	7.97	8.65	7.7
Chloroform	µg/L	2.54	12.4	18	5.54	13.8	19.8	6.87
cis-1,2-Dichloroethene	µg/L	24.1	22.5	30	7.08	14.9	34.6	31.4
Tetrachloroethene	µg/L	0.68 J	0.94 J	5	<1	0.74 J	0.91 J	1.89
trans-1,2-Dichloroethene	µg/L	1.4	2.01	4	<1	1.39	2.58	5.28
Trichloroethene	µg/L	30.6	43.3	50	11.6	28.1	29.2	259
Vinyl chloride	µg/L	<1	<1	0.1 J	<1	<1	<1	<1

Notes:

-- not analyzed

µg/L micrograms per liter

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-54

	Well ID	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	4/10/2002	10/1/2002	4/8/2003	11/18/2003	2/4/2004	4/7/2004	4/29/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	9.06	60.1	44.1	301	2180	1350	2000
1,1,2-Trichloroethane	µg/L	1.19	<10	<10	7.86	9.85	6.63	<67
1,1-Dichloroethene	µg/L	<1	<10	<10	<1	<1	<1	<67
Carbon tetrachloride	µg/L	2.96	5.58 J	7.48	3.35	5.79	3.94	<67
Chloroform	µg/L	8.84	11.6	1.82	3.68	5.4	3.93	<67
cis-1,2-Dichloroethene	µg/L	43.7	85.9	44.3	85.3	83.4	61.2	64 J
Tetrachloroethene	µg/L	2.06	<10	4.02	7.37	14.2	8.36	<67
trans-1,2-Dichloroethene	µg/L	9.95	16.2	8.76	4.16	20.4	13	54 J
Trichloroethene	µg/L	723	920	72.4	216	2230	1530 J	2000
Vinyl chloride	µg/L	<1	<10	<10	<1	0.441 J	<1	<67

Notes:

-- not analyzed

µg/L micrograms per liter

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-54

	Well ID	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	8/14/2004	10/21/2004	1/27/2005	3/23/2005	6/17/2005	11/18/2005	4/13/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2300	4700	3000	2100	1220	853	605
1,1,2-Trichloroethane	µg/L	<100	<140	6 J	6.1 J	3.68	3.44	3.91
1,1-Dichloroethene	µg/L	<100	<140	<10	<8.3	<1	<1	<1
Carbon tetrachloride	µg/L	<100	<140	<10	<8.3	0.902 J	1.3	0.944 J
Chloroform	µg/L	<100	<140	<10	3 J	1.52 B	1.46 B	1.14 B
cis-1,2-Dichloroethene	µg/L	65 J	70 J	23	41	35.8	25.4	19.1
Tetrachloroethene	µg/L	<100	<140	<10	5.8 J	2.77	4.42	2.98
trans-1,2-Dichloroethene	µg/L	<100	<140	2.9 J	6.5 J	5.94	4.18	4.38
Trichloroethene	µg/L	2200	2700	300	1300	729	478 J	671
Vinyl chloride	µg/L	<100	<140	<10	<8.3	<1	<1	<1

Notes:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-54

	Well ID	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	4/26/2006	10/19/2006	4/9/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	572	572	160	80	171	53.9	842
1,1,2-Trichloroethane	µg/L	4.54	2.54	0.968 J	<5	0.885 J	0.621 J	4.15
1,1-Dichloroethene	µg/L	<1	<1	<2.5	<5	<1	<1	<2
Carbon tetrachloride	µg/L	1.08	1.9	2.34 J	5.74	6.76	4.37	0.745 J
Chloroform	µg/L	1.68 J	1.45	2	3.17	3.85	9.78	3.15
cis-1,2-Dichloroethene	µg/L	26.3	19.6	18.9	19.2	17.4	15.7	25.9
Tetrachloroethene	µg/L	1.63	2.78	3.58	5.06	3.88	2.46	5.01
trans-1,2-Dichloroethene	µg/L	5.65	3.88	4.2	4.48 J	4.42	3.13	4.1
Trichloroethene	µg/L	493	604	405	474	348	350	744
Vinyl chloride	µg/L	<1 UJ	<1	<2.5	<5	<1	<1	<2

Notes:

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µg/L micrograms per liter

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-54

	Well ID	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54	MW-54
	Sample Date	10/16/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	4/25/2011	9/26/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	384	168	83.2	44.9 J	28.5	2.45	1.64
1,1,2-Trichloroethane	µg/L	1.49 J	0.599 J	0.312 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2.5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.25	0.663	0.366	0.286 J	0.422	0.304	0.692
cis-1,2-Dichloroethene	µg/L	10.7	4.7	2.5	2.65	1.11	<1	<1
Tetrachloroethene	µg/L	2.52	1.77	1.12	1.28	1.31	0.616 J	0.537 J
trans-1,2-Dichloroethene	µg/L	1.39 J	0.657 J	0.308 J	<1	<1	<1	<1
Trichloroethene	µg/L	381	170	93.6	60	55.6	8.73	4.4
Vinyl chloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1

Notes:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-70

	Well ID	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	2/15/2000	3/24/2000	5/18/2000	8/24/2000	11/10/2000	1/8/2001	10/3/2001
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	4830	310	342	930	3370	390	766
1,1,2-Trichloroethane	µg/L	39.4	4	3.93	15.2	16	2	<1
1,1-Dichloroethene	µg/L	0.61 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.48	0.4 J	0.64 J	2.46	1.81	0.4 J	<1
Chloroform	µg/L	18.2	2	5.18	8.46	9.37	1 J	<1
cis-1,2-Dichloroethene	µg/L	522	46	54.8	211	292	9	92.8 J
Tetrachloroethene	µg/L	89.7	13	5.35	35.8	32.5 J	2	<1
trans-1,2-Dichloroethene	µg/L	149	14	12	50.4	57.3	5	<1
Trichloroethene	µg/L	11700	1100	720	4240	4040	590	2340
Vinyl chloride	µg/L	1.88	0.2 J	<1	0.62 J	1.69	8	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-70

	Well ID	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	4/10/2002	10/2/2002	4/8/2003	10/28/2003	4/29/2004	8/14/2004	10/21/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2540	7980	3060	8270	8500	3500	4200
1,1,2-Trichloroethane	µg/L	7.35	<50	<50	6.92	<250	<120	<170
1,1-Dichloroethene	µg/L	0.98 J	<50	<50	<1	<250	<120	<170
Carbon tetrachloride	µg/L	<1	<50	<50	0.64 J	<250	<120	<170 J
Chloroform	µg/L	3.99	<50	<50	2.5	<250	<120	<170
cis-1,2-Dichloroethene	µg/L	69.2	72.4	31.6	50	120 J	<120	<170
Tetrachloroethene	µg/L	3.27	<50	<50	3.85	<250	<120	<170
trans-1,2-Dichloroethene	µg/L	27.3	<50	<50	3.91	<250	<120	<170
Trichloroethene	µg/L	2940	1980	824	2530	3700	970	1100
Vinyl chloride	µg/L	17	<50	<50	10.3	<250	<120	<170

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-70

	Well ID	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	10/22/2004	6/14/2005	11/19/2005	4/12/2006	10/20/2006	4/11/2007	10/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5800	6410	2990	7670	9200	627	455
1,1,2-Trichloroethane	µg/L	<140	8.88	6.65 J	6.15	25.7	2.17	14.7
1,1-Dichloroethene	µg/L	<140	<5	1.07	3.36	1.89	1.75	2.48
Carbon tetrachloride	µg/L	<140	<5	<10	<1	0.575 J	<1	<2
Chloroform	µg/L	<140	<5	2.12 B	1.52 B	3.79	1.08	0.461 J
cis-1,2-Dichloroethene	µg/L	41 J	67.8	70.5	48.1	122	58.5	8.01
Tetrachloroethene	µg/L	<140	6.3 J	4.84	16.5	29.5	8.16	4.44
trans-1,2-Dichloroethene	µg/L	<140	6.31	15.8	16.6	19.7	5.48	11.5
Trichloroethene	µg/L	2100	361	2420	2130	3390	750	308
Vinyl chloride	µg/L	<140	18.1	29.5	94.2	64.2	94.3	42.3

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-70

	Well ID	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70	MW-70
	Sample Date	4/14/2008	10/17/2008	4/15/2009	7/30/2009	10/15/2009	3/25/2010	6/22/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	270	0.883	1.98	0.594	0.971	<0.5	1.03
1,1,2-Trichloroethane	µg/L	1.11 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.71 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.75	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	14.2	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.53 J	0.876 J	0.58 J	0.582 J	0.71 J	1.04	1.3
trans-1,2-Dichloroethene	µg/L	4.74	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	86	1.96	4.95	2.66	1.93	0.581 J	4.11
Vinyl chloride	µg/L	13.5	<1	<1	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-70

Analyte	Well ID	MW-70	MW-70	MW-70	MW-70
	Sample Date	9/22/2010	1/26/2011	4/25/2011	9/27/2011
	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	1.07 J	1.05	0.415 J	0.669
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	0.174 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.25	1.21	0.716 J	1.03
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	3.78	3.09	2	1.64
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-76

	Well ID	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	1/8/2001	2/14/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2300	694	332	15.5	54.7	8.92	8.08
1,1,2-Trichloroethane	µg/L	2	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1	<1	<1	1.22	<1	1.44	<1
cis-1,2-Dichloroethene	µg/L	58	17.8	4.67 J	13.5	2.94	5.98	4.16
Tetrachloroethene	µg/L	5	3.98	<1	1.81	1.8	7.43	2.29
trans-1,2-Dichloroethene	µg/L	19	6.84	7.57 J	7.71	1.17	4.74	1.93
Trichloroethene	µg/L	840	276	72.2	90.7	37.2	78.9	33.8
Vinyl chloride	µg/L	0.3 J	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-76

	Well ID	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	4/29/2004	8/16/2004	10/21/2004	6/15/2005	11/17/2005	4/12/2006	10/20/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	3.6	2.9	4.3	4.98 B	<1	18.3	2.58
1,1,2-Trichloroethane	µg/L	<1	<2	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<2	<1 J	<1	<1	<1	<1
Chloroform	µg/L	0.23 J	0.47 J	0.18 J	<1	<1	<1	0.208 J
cis-1,2-Dichloroethene	µg/L	0.95 J	6.9	0.69 J	<1	<1	<1	0.263 J
Tetrachloroethene	µg/L	1.4	1.8 J	0.27 J	0.854 J	1.14	2.36	1.84
trans-1,2-Dichloroethene	µg/L	0.44 J	3.5	0.24 J	<1	<1	<1	<1
Trichloroethene	µg/L	4	34	8.9	3.88	5.16 B	7.71	4.9
Vinyl chloride	µg/L	<1	<2	<1	<1	<1	<1	<1

Notes:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-76

Analyte	Well ID	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	4/10/2007	10/8/2007	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/15/2009
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	3.82	18.4	77	9.41	0.864	1.11	1.38
1,1,2-Trichloroethane	µg/L	<1	<1	0.303 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.359	0.978	0.915	0.167 J	0.152 J	0.146 J	<0.3
cis-1,2-Dichloroethene	µg/L	3.08	11.8	13.2	0.406 J	<1	<1	<1
Tetrachloroethene	µg/L	2.74	4.82	4.44	1.35	0.444 J	0.444 J	0.35 J
trans-1,2-Dichloroethene	µg/L	1.41	5.79	3.59	<1	<1	<1	<1
Trichloroethene	µg/L	26.4	132	336 J	15	2.74	3.26	2.27
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1 UJ

Notes:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-76

Analyte	Well ID	MW-76	MW-76	MW-76	MW-76	MW-76	MW-76
	Sample Date	3/25/2010	6/22/2010	9/22/2010	1/26/2011	4/25/2011	9/27/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	0.525	0.378 J	1.07	0.853	0.294 J	0.276 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1 UJ	<1	<1	<1	<1
Chloroform	µg/L	0.134 J	<0.3	0.139 J	0.138 J	<0.3	0.15 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.361 J	0.376 J	0.322 J	<1	0.3 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.35	1.41	2.51	1.79	0.833 J	0.717 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-77

	Well ID	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	1/8/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	11/18/2003	4/29/2004
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2900	1820	4330	18200	30000	12800	15000
1,1,2-Trichloroethane	µg/L	8	<1	9.46	<50	<50	8.53	<620
1,1-Dichloroethene	µg/L	<10	<1	<1	<50	<50	<1	<620
Carbon tetrachloride	µg/L	0.6 J	<1	<1	<50	<50	0.86 J	<620
Chloroform	µg/L	4 J	<1	5.39	<50	<50	4.96	<620
cis-1,2-Dichloroethene	µg/L	130	76.4 J	176	237	230	189	170 J
Tetrachloroethene	µg/L	6	<1	7.18	<50	<50	14.8	<620
trans-1,2-Dichloroethene	µg/L	33	20.1 J	42.2	42.9 J	42.2	37.8	<620
Trichloroethene	µg/L	2500	1620	3170	5040	5320	4550	5400
Vinyl chloride	µg/L	0.4 J	<1	<1	<50	<50	<1	<620

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-77

	Well ID	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	8/15/2004	10/21/2004	6/15/2005	11/16/2005	4/12/2006	4/26/2006	10/20/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	11000	4700	2290 J	14000	21700	16700	14300
1,1,2-Trichloroethane	µg/L	<330	<250	<20	18.7	15.7	14.6	17.4
1,1-Dichloroethene	µg/L	<330	<250	<20	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<330	<250 J	<20	0.961 J	1.12	1.05	0.922 J
Chloroform	µg/L	<330	<250	<20	2.58 B	4.32 B	5.05 J	4.77
cis-1,2-Dichloroethene	µg/L	94 J	64 J	100	107	154	154	151
Tetrachloroethene	µg/L	<330	<250	16.8 J	21.1	48	22.2	46.9
trans-1,2-Dichloroethene	µg/L	<330	<250	24.1	15.5	38.5	36.3	19.1
Trichloroethene	µg/L	3200	1700	2100	5300	5520	5170	6500
Vinyl chloride	µg/L	<330	<250	<20	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-77

	Well ID	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	4/10/2007	10/8/2007	4/14/2008	10/17/2008	4/15/2009	7/30/2009	10/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	8800	1980	566	2010	28.3	27.2	47.5
1,1,2-Trichloroethane	µg/L	<50	2.59	<20	2.3	<1	<1	<1
1,1-Dichloroethene	µg/L	<50	<1	<20	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<50	<1	<20	<1	<1	<1	<1
Chloroform	µg/L	<15	0.822	<6	0.573	0.13 J	0.153 J	0.175 J
cis-1,2-Dichloroethene	µg/L	67.5	22.1	7.13 J	13.2	0.447 J	0.52 J	0.94 J
Tetrachloroethene	µg/L	21 J	17	<20	4.62	1.49	0.619 J	0.685 J
trans-1,2-Dichloroethene	µg/L	<50	2.16	<20	0.709 J	<1	<1	<1
Trichloroethene	µg/L	3330	1290	309	796	21.9	23.6	36.7
Vinyl chloride	µg/L	<50	<1	<20	<1	<1	<1	<1 UJ

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-77

Analyte	Well ID	MW-77	MW-77	MW-77	MW-77	MW-77	MW-77
	Sample Date	3/25/2010	6/22/2010	9/22/2010	1/26/2011	4/25/2011	9/27/2011
	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	5.34	19.6	20.4	25	22	16.9
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1 UJ	<1	<1	<1	<1
Chloroform	µg/L	0.179 J	0.181 J	0.238 J	0.234 J	0.325	0.425
cis-1,2-Dichloroethene	µg/L	<1	0.558 J	0.592 J	0.516 J	0.746 J	0.442 J
Tetrachloroethene	µg/L	0.4 J	0.585 J	0.405 J	0.452 J	0.353 J	0.369 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	5.68	22.8	23.6	23.7	31.1	21.2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-79

	Well ID	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	2/15/2001	2/19/2001	10/3/2001	4/10/2002	10/1/2002	4/8/2003	10/28/2003
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	3.34	<1	<1	<10	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<10	<1	<1
1,1-Dichloroethene	µg/L	48	30.1	37.6	18.8	23.8	35.8	23.9
Carbon tetrachloride	µg/L	0.1 J	<1	<1	<1	<10	<1	<1
Chloroform	µg/L	1.7	<1	<1	<1	<10	<1	<1
cis-1,2-Dichloroethene	µg/L	6.1	2.52	0.88 J	0.68 J	8.67 J	0.86	2.07
Tetrachloroethene	µg/L	34	14	6.85	6.96	3.26 J	5.64	2.1
trans-1,2-Dichloroethene	µg/L	2.2	<1	0.96 J	1.09	9	1.31	1.61
Trichloroethene	µg/L	26	9.6	8.8	9	68.4	15.2	12.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<10	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-79

	Well ID	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	4/29/2004	8/13/2004	10/22/2004	1/26/2005	3/22/2005	6/16/2005	11/18/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	9.4	7.6 B	7.8	9.1	10	13.1	16.6
Carbon tetrachloride	µg/L	<1	0.77 J	0.42 J	0.22 J	0.3 J	<1	<1
Chloroform	µg/L	0.21 J	<1	0.29 J	<1	0.28 B	<1	<1
cis-1,2-Dichloroethene	µg/L	1.7	1.9	3	1	2.4	1.59	<1
Tetrachloroethene	µg/L	2.1	1.7	1.8	1.2	1.2	1.17	1.01
trans-1,2-Dichloroethene	µg/L	2 J	1.6	3	1.1	2.3	1.28	<1
Trichloroethene	µg/L	8.3	14	9.5	7.5	16	9.99	3.69
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-79

	Well ID	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	4/13/2006	10/18/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<0.5	<0.5	<0.5	30.4	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	11.4	10.6	11.2	13.7	10	4.17	1.17
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<0.3	<0.3	<0.3	<0.3	0.127 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	0.47 J	1.06	1.14	0.917 J	0.914 J	0.536 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.94	1.63	1.9	3.27	7.5	0.948 J	0.501 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-79

Analyte	Well ID	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79	MW-79
	Sample Date	10/16/2009	3/25/2010	6/22/2010	9/23/2010	1/25/2011	4/25/2011	9/27/2011
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	3.99	17.9	26.4	35.7	28.7	25.3	25.3
Carbon tetrachloride	µg/L	<1	<1	<1 UJ	<1	<1	<1	<1
Chloroform	µg/L	<0.3	0.152 J	0.228 J	0.17 J	0.211 J	0.155 J	1.31
cis-1,2-Dichloroethene	µg/L	<1	<1	0.438 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.38	26.6	50.8	25	18.1	12.2	15.4
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.25	16.9	39	20.2	17.3	14.7	19.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-148

	Well ID	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
	Sample Date	6/10/2004	8/17/2004	10/26/2004	1/27/2005	3/22/2005	6/17/2005	11/18/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	3.1	0.72 J	5.55	0.63 J	0.37 J	15.4	2.87
1,1,2-Trichloroethane	µg/L	--	<1	0.424 J	<1	<1	1.03	<1
1,1-Dichloroethene	µg/L	<2.5	<1	<1	<1	<1	0.426 J	<1
Carbon tetrachloride	µg/L	0.45 J	0.73 J	0.577 J	0.19 J	<1	0.583 J	<1
Chloroform	µg/L	1.5 J	0.6 J	2.25	0.88 J	0.58 B	3.07 B	1.3 B
cis-1,2-Dichloroethene	µg/L	29	13	52.3	12	4.8	95.2	23.2
Tetrachloroethene	µg/L	6.4	3.7	7.83	4.5	3.3	6.44	3.93
trans-1,2-Dichloroethene	µg/L	11	4.9	21.3	3.8	1.9	26.8	6.4
Trichloroethene	µg/L	77	31	136	27	13	160	42
Vinyl chloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-148

	Well ID	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
	Sample Date	4/12/2006	10/18/2006	4/10/2007	10/5/2007	4/11/2008	10/17/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2.47	3.72	1.75	3.43	6.92	9.66	0.263 J
1,1,2-Trichloroethane	µg/L	<1	0.316 J	<1	<1	0.252 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	0.267 J	<1	<1	<1	<1	<1
Chloroform	µg/L	0.861 B	1.74	0.473	1.09	1.16	0.665	0.137 J
cis-1,2-Dichloroethene	µg/L	10.4	34.3	5.04	4.58	7.33	6.63	<1
Tetrachloroethene	µg/L	2.88	7.53	4.18	3.78	3.59	2.42	0.36 J
trans-1,2-Dichloroethene	µg/L	3.18	10.7	1.82	6.68	2.74	1.73	<1
Trichloroethene	µg/L	21.1	74.1	7.7	22.7	62.9	107	1.78
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

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B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit
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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-148

	Well ID	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
	Sample Date	10/15/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	0.63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	0.186 J	0.185 J	0.164 J
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	0.254 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.613 J	0.932 J	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-149

	Well ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
	Sample Date	6/11/2004	8/18/2004	1/27/2005	4/12/2005	6/17/2005	11/19/2005	4/13/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	42	27 J	37	27	50.4	38.3	30.3
1,1,2-Trichloroethane	µg/L	--	<5	0.87 J	0.64 J	1.66	1.62	1.23
1,1-Dichloroethene	µg/L	<6.7	<5	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	17	12	14	16	15.7	22	12.6
Chloroform	µg/L	200	110	140	79	64	159	50
cis-1,2-Dichloroethene	µg/L	4.9 J	3.8 J	4	3.1	20.4	4.36	3.42
Tetrachloroethene	µg/L	2.7 J	1.6 J	1.8	1.6	1.01	2.13	1.3
trans-1,2-Dichloroethene	µg/L	<6.7	<5	0.81 J	0.63 J	2.37	2.21	1.48
Trichloroethene	µg/L	68	38	45	35	68.1	75.4	57.1
Vinyl chloride	µg/L	<6.7	<5	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-149

	Well ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
	Sample Date	10/19/2006	4/9/2007	10/5/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	23.1	37.2	9.78	4.1	1.71	8.51	9.93
1,1,2-Trichloroethane	µg/L	0.686 J	1.29	0.346 J	<1	<1	0.355 J	0.387 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	12.9	19.8	8.05	6.7	8.17	4.46	6.36
Chloroform	µg/L	95.5	155	54	29.6	25.6	31.7	70
cis-1,2-Dichloroethene	µg/L	7.81	9.02	3.1	2.43	1.63	2.24	4.64
Tetrachloroethene	µg/L	1.44	3.81	1.84	1	0.717 J	0.776 J	1.16
trans-1,2-Dichloroethene	µg/L	1.13	1.59	0.536 J	0.675 J	0.378 J	0.382 J	0.662 J
Trichloroethene	µg/L	45.4	80.9	30.1	19.1	19.8	24.9	38.6
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-149

	Well ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
	Sample Date	3/24/2010	6/23/2010	9/23/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	5.47	15	29.8	24.8	15	12.1
1,1,2-Trichloroethane	µg/L	<1	0.69 J	1.3	1.07	0.764 J	0.42 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1.78	2.02	6.98	7.91	4.35	2.26
Chloroform	µg/L	12.9	41.6	92.3	94.3	75.2	34.5
cis-1,2-Dichloroethene	µg/L	4.52	7.22	17.7	13.2	6.21	3.14
Tetrachloroethene	µg/L	0.718 J	0.651 J	1.92	2.16	1.55	0.838 J
trans-1,2-Dichloroethene	µg/L	0.679 J	0.595 J	1.54	1.33	0.722 J	0.27 J
Trichloroethene	µg/L	54.7	35	87.9	66.6	38.9	18.4
Vinyl chloride	µg/L	<1	<1	<1 J	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-150

	Well ID	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	6/24/2004	8/18/2004	10/25/2004	1/27/2005	3/23/2005	6/17/2005	11/19/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	7600	8000 J	10900 J	6700	6600	4790	3080
1,1,2-Trichloroethane	µg/L	--	<250	5.73 J	6.9 J	5.1 J	9.2 J	16.3
1,1-Dichloroethene	µg/L	<200	<250	<1	<20	<20	<10	<10
Carbon tetrachloride	µg/L	<200	<250	1.54 J	<20	<20	<10	<10
Chloroform	µg/L	<200	<250	3.35 J	<20	3.3 J	<10	1.36 B
cis-1,2-Dichloroethene	µg/L	76 J	74 J	81.9 J	84	48	57	64.3
Tetrachloroethene	µg/L	<200	<250	13.6 J	<20	6.4 J	6.77 J	2.47
trans-1,2-Dichloroethene	µg/L	<200	<250	21.1 J	22	9.1 J	8.83 J	5.78
Trichloroethene	µg/L	3000	3000	2330 J	690	2000	983	639
Vinyl chloride	µg/L	<200	<250	<1	<20	<20	<10	<10

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-150

	Well ID	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	4/12/2006	4/26/2006	10/19/2006	4/9/2007	10/8/2007	4/11/2008	10/20/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2940	2590	8480	4620	3960	1960	1750
1,1,2-Trichloroethane	µg/L	5.7	6	5.31 J	27	87.2	9.85 J	12.4
1,1-Dichloroethene	µg/L	<1	<1	0.619 J	0.687 J	<25	<20	0.992 J
Carbon tetrachloride	µg/L	0.413 J	0.31 J	<10	<25	<25	<20	<1
Chloroform	µg/L	2.09 B	2 J	2.22	1.92	<7.5	1.43 J	5
cis-1,2-Dichloroethene	µg/L	74.2	54	77.1	56.2	81.3	37.3	22.4
Tetrachloroethene	µg/L	4.09	4.02	7.13 J	6.54 J	18.9 J	8.1 J	5.22
trans-1,2-Dichloroethene	µg/L	8.66	10.3	9.79 J	24.3	11.6 J	<20	1.28
Trichloroethene	µg/L	747	1120	2910	3060	2470	80.6 J	636
Vinyl chloride	µg/L	<1	0.37 J	<10	0.83 J	<25	<20	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-150

	Well ID	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150	MW-150
	Sample Date	6/8/2009	10/16/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	618	406	34.7	4.98	0.917	11.4	9.89
1,1,2-Trichloroethane	µg/L	3.21 J	0.716 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<5	<2.5	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<5	<2.5	<1	<1	<1	<1	<1
Chloroform	µg/L	<1.5	0.913	0.246 J	0.222 J	0.16 J	0.178 J	0.16 J
cis-1,2-Dichloroethene	µg/L	6.26	1.27 J	0.453 J	<1	<1	<1	0.304 J
Tetrachloroethene	µg/L	3.36 J	1.1 J	0.711 J	0.888 J	0.976 J	0.678 J	0.836 J
trans-1,2-Dichloroethene	µg/L	<5	<2.5	<1	<1	<1	<1	<1
Trichloroethene	µg/L	311	49.4	16.1	2.44	0.515 J	13.5	15.6
Vinyl chloride	µg/L	<5	<2.5	0.416 J	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-150

Analyte	Well ID	MW-150
	Sample Date	9/26/2011
	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	15.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	0.878
cis-1,2-Dichloroethene	µg/L	0.757 J
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	28.1
Vinyl chloride	µg/L	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
B Estimated results possibly biased high or false positive based on blank data
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-151

	Well ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
	Sample Date	8/16/2004	10/26/2004	1/25/2005	3/22/2005	6/17/2005	11/17/2005	11/19/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	<1	0.23 J	0.28 J	<1	<1	<1
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	25.5	<1
Carbon tetrachloride	µg/L	2.7	3.44	4.7	5.3	0.939 J	<1	4.78
Chloroform	µg/L	3.3	6.72	10	11	2.69 B	0.15 J	8.04
cis-1,2-Dichloroethene	µg/L	0.22 J	0.446 J	0.92 J	0.96 J	<1	<1	1
Tetrachloroethene	µg/L	<1	<1	0.4 J	0.48 J	<1	1.69	0.415 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	0.25 J	<1	<1	<1
Trichloroethene	µg/L	2.2	3.67	6.3	7.2	1.31	7.31	4.67 B
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-151

	Well ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
	Sample Date	4/13/2006	10/18/2006	4/9/2007	10/5/2007	4/14/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<1	1.42	0.68	0.408 J	0.468 J	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.47	6.19	5.53	3.9	4.77	0.564 J	0.774 J
Chloroform	µg/L	11.4	16.9	12.5	12.4	15.5	1.34	1.81
cis-1,2-Dichloroethene	µg/L	1.22	1.45	1.24	1.29	1.42	<1	<1
Tetrachloroethene	µg/L	<1	0.621 J	0.588 J	0.859 J	0.639	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	0.282 J	0.274 J	0.304 J	0.613 J	<1	<1
Trichloroethene	µg/L	8.75	10.5	11.1	16.8	20.1	2.62	5.1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-151

	Well ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
	Sample Date	10/16/2009	3/23/2010	6/23/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	0.315 J	0.846	1.92	2.45
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1.43	0.967 J	0.765 J	0.735 J	0.766 J	1.29	1.18
Chloroform	µg/L	2.92	2.93	2.67	2.36	4.65	12.3	16.3
cis-1,2-Dichloroethene	µg/L	0.416 J	0.369 J	0.309 J	0.309 J	0.61 J	1.24	0.998 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	0.286 J	0.3 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	8.06	9.9	8.21	7.24	7.69	10.8	10.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undected, RL is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-152

	Well ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
	Sample Date	8/15/2004	10/10/2004	10/11/2004	10/13/2004	10/14/2004	1/26/2005	3/22/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	11	<5	15	1500	12	9.3 J	6.5
1,1,2-Trichloroethane	µg/L	<3.3	<5	<5	<100	<5	<1	<1
1,1-Dichloroethene	µg/L	<3.3	<5	<5	<100	<5	<1	<1
Carbon tetrachloride	µg/L	2.1 J	<5	<5	<100	<5	0.39 J	0.24 J
Chloroform	µg/L	0.97 J	<5	<5	<100	<5	1.5	0.98 B
cis-1,2-Dichloroethene	µg/L	9.2	6.9	7.7	35 J	9	14	10
Tetrachloroethene	µg/L	5.4	4 J	3.1 J	<100	5.9	7.8	5.8
trans-1,2-Dichloroethene	µg/L	4.1	3.4 J	4.6 J	<100	4.1 J	6.6	5.1
Trichloroethene	µg/L	76	70	78	950	92	110	59
Vinyl chloride	µg/L	<3.3	<5	<5	<100	<5	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

- J Estimated results based on QC data or reported below RL
- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-152

	Well ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
	Sample Date	6/16/2005	11/18/2005	4/13/2006	10/18/2006	4/10/2007	10/8/2007	4/11/2008
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5.32	4.95	8.16	4.87	8.67	4.85	3.05
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	1	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	2.19 B	1.76 B	1.2	1.84	1.03	0.601
cis-1,2-Dichloroethene	µg/L	4.22	29	18.7	12.7	21.8	7.71	5.65
Tetrachloroethene	µg/L	1.74	5.27	11.3	13.4	9.65	7.69	8.53
trans-1,2-Dichloroethene	µg/L	1.87	4.43	9.62	5.96	9.23	5.18	2.42
Trichloroethene	µg/L	19.3	71	161	125	185	95	72.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-152

	Well ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
	Sample Date	10/20/2008	6/8/2009	10/16/2009	3/25/2010	6/22/2010	9/23/2010	1/25/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	11.7	3.33	9.85	77.8	63.9	5.35	2.01
1,1,2-Trichloroethane	µg/L	<1	<2	0.336 J	0.492 J	0.311 J	<1	<1
1,1-Dichloroethene	µg/L	0.758 J	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.459 J	<2	<1	<1	<1	<1	<1
Chloroform	µg/L	2.59	2.03	0.962	0.711	0.446	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	40.2	39.9	18.3	4.2	1.14	<1	<1
Tetrachloroethene	µg/L	15.7	7.4	2.89	0.681 J	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	13.4	13.1	1.39	<1	<1	<1	<1
Trichloroethene	µg/L	260	241	183	40.8	14.5	1.55	1.07
Vinyl chloride	µg/L	<1	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-152

Analyte	Well ID	MW-152	MW-152
	Sample Date	3/28/2011	9/27/2011
	UNIT		
1,1,2,2-Tetrachloroethane	µg/L	1.1	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1
1,1-Dichloroethene	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Chloroform	µg/L	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1
Trichloroethene	µg/L	0.727 J	0.478 J
Vinyl chloride	µg/L	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

- J Estimated results based on QC data or reported below RL
- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-155

	Well ID	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
	Sample Date	8/16/2004	10/13/2004	11/8/2004	1/26/2005	3/23/2005	6/17/2005	11/19/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2100	2000	800	470 J	660	2220	3530
1,1,2-Trichloroethane	µg/L	<77	<100	<50	0.59 J	1.7 J	4.54	9.95 J
1,1-Dichloroethene	µg/L	<77	<100	<50	<1	<2.2	<1	<10
Carbon tetrachloride	µg/L	<77	<100	<50	<1	<2.2	<1	<10
Chloroform	µg/L	<77	<100	<50	<1	0.68 B	1.5 B	1.64 B
cis-1,2-Dichloroethene	µg/L	48 J	55 J	46 J	1.8	27	67.5	53.9
Tetrachloroethene	µg/L	<77	<100	7.4 J	<1	0.6 J	3.04	8.11
trans-1,2-Dichloroethene	µg/L	<77	<100	6.4 J	0.29 J	4.5	15.1	9.91
Trichloroethene	µg/L	1000	1000	820	32	530	1750	1560
Vinyl chloride	µg/L	<77	<100	<50	<1	<2.2	<1	<10

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-155

	Well ID	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
	Sample Date	4/13/2006	10/18/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	581	4090	3180	3400	3770	2040	1610
1,1,2-Trichloroethane	µg/L	7.5	77.4	147	80.3	53.8	7.58	5.28 J
1,1-Dichloroethene	µg/L	<1	0.559 J	0.966 J	2.84	<25	1.04	<10
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<25	<1	<10
Chloroform	µg/L	1.51 B	2.1	1.69 J	1.65	<7.5	1.17	<3
cis-1,2-Dichloroethene	µg/L	35.1	72.2	86 J	64.1	73.8	46.8	16
Tetrachloroethene	µg/L	5.93	13.8	12.4 J	4.3	8.34 J	10.4	7.03 J
trans-1,2-Dichloroethene	µg/L	8.66	20.4	35.3	23.6	9.93 J	3.58	<10
Trichloroethene	µg/L	865	1810	1650	794	1600	1210	643
Vinyl chloride	µg/L	<1	<1	1.15	0.971 J	<25	<1	<10

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-155

	Well ID	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
	Sample Date	10/15/2009	3/24/2010	6/23/2010	9/22/2010	1/25/2011	3/28/2011	9/26/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	263	16.7	24	4.58	3.75	2.61	1.68
1,1,2-Trichloroethane	µg/L	<2	<1	0.498 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<2	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.256 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.59 J	0.303 J	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.48 J	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<2	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	94.2	3.17	1.57	0.408 J	1.07	0.585 J	0.709 J
Vinyl chloride	µg/L	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

- J Estimated results based on QC data or reported below RL
- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-157

	Well ID	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
	Sample Date	8/18/2004	10/27/2004	1/27/2005	3/23/2005	6/15/2005	11/17/2005	4/12/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5.7 J	6.74 J	3.8	3.6	3.18 B	2.22	2.28
1,1,2-Trichloroethane	µg/L	<6.7	0.351 J	0.33 J	0.26 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<6.7	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	9.4	10.5 J	9.9	5.2	4.75	4.56	5.61
Chloroform	µg/L	14	14 J	12	7.5	10.2	8.18	10.8
cis-1,2-Dichloroethene	µg/L	11	13.2 J	13	11	10.9	9.35	9.75
Tetrachloroethene	µg/L	1.9 J	1.51 J	2	1.6	1.32	1.49	1.59
trans-1,2-Dichloroethene	µg/L	1.9 J	2.7 J	2.4	1.9	2.58	1.3	2.2
Trichloroethene	µg/L	120	143 J	160	200	157	117	132
Vinyl chloride	µg/L	<6.7	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-157

	Well ID	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
	Sample Date	10/19/2006	4/10/2007	10/8/2007	4/14/2008	10/17/2008	4/14/2009	7/30/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2.64	25.2	27	10.1	7.19	9.47	5.06
1,1,2-Trichloroethane	µg/L	<1	1.04	1.22	<2	0.39 J	0.288 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<2	<1	<1	<1
Carbon tetrachloride	µg/L	9.25	17.2	26	<2	12	6.25	3.35
Chloroform	µg/L	30.1	153	235	9	89.6	17.1	9.88
cis-1,2-Dichloroethene	µg/L	13.3	16.8	12.5	0.671 J	3.29	14.8	12
Tetrachloroethene	µg/L	2.19	4.1	7.43	<2	1.15	2.68	2.05
trans-1,2-Dichloroethene	µg/L	2.7	3	3.06	<2	0.589 J	2.75	2.64
Trichloroethene	µg/L	148 J	162	151	5.48	38.3	286	205
Vinyl chloride	µg/L	<1	<1	<1	<2	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-157

	Well ID	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
	Sample Date	10/15/2009	3/25/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	3.88	5.71	8.15	3.55	1.29	2.46	1.34
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.66	4.14	2.9	2.25	0.644 J	0.783 J	0.314 J
Chloroform	µg/L	8	7.72	6.41	5.85	4.43	7.1	3.46
cis-1,2-Dichloroethene	µg/L	11.6	9.3	7.73	5.44	1.8	1.69	0.659 J
Tetrachloroethene	µg/L	2.1	1.81	1.34	1.03	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	2.69	2.11	1.55	1.03	<1	<1	<1
Trichloroethene	µg/L	202	175	141	88.3	13.3	9.04	4.18
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-158

	Well ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
	Sample Date	10/9/2004	10/13/2004	11/8/2004	1/25/2005	3/21/2005	6/16/2005	11/18/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	15	21	53	24	11	4.39	5.54
1,1,2-Trichloroethane	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1
Chloroform	µg/L	0.47 B	0.29 J	0.63 J	0.38 J	0.41 B	<1	1.07 B
cis-1,2-Dichloroethene	µg/L	2.2	3	7.2	3.1	3.3	5.16	9.31
Tetrachloroethene	µg/L	1.2	1.8	3.5	2.3	3.3	3.67	6.05
trans-1,2-Dichloroethene	µg/L	1.1	1.3	3	1.3 J	1.6	2.52	3.38
Trichloroethene	µg/L	20	30	74	33	30	32	77.8
Vinyl chloride	µg/L	<1	<1	<2.5	<1.4	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-158

	Well ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
	Sample Date	4/13/2006	10/19/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	6.36	4.41	1.86	1.26	3.03	27.4	5.84
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1 B	0.691	0.404	0.194 J	0.288 J	0.682	0.758
cis-1,2-Dichloroethene	µg/L	7.74	5.96	2.9	1.4	2.9	7.79	11.6
Tetrachloroethene	µg/L	9.28	8.49	8.13	3.87	4.98	6.92	3.88
trans-1,2-Dichloroethene	µg/L	3.62	3.13	1.56	0.697 J	1.25	2.74	2.76
Trichloroethene	µg/L	76.3	77.4	54	20.6	37.1	162	141
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-158

Analyte	Well ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
	Sample Date	10/16/2009	3/24/2010	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	8.22	4.59	0.802	1.82	0.677	0.49 J	1.15
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.294 J	<0.3 J	0.156 J	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	1.45	1.04	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.66	0.697 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	0.35 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	26.4	16.7	3.37	6.04	1.17	0.681 J	2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-158A

	Well ID	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
	Sample Date	10/10/2004	10/12/2004	11/8/2004	1/24/2005	3/21/2005	6/16/2005	11/18/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	560	270	83	77	96	736	844
1,1,2-Trichloroethane	µg/L	<20	<15	<7.7	<2	0.24 J	2.5	4.5 J
1,1-Dichloroethene	µg/L	<20	<15	<7.7	<2	<1	0.392 J	<10
Carbon tetrachloride	µg/L	<20	<15	<7.7	<2	0.55 J	<1	<10
Chloroform	µg/L	<20	<15	2.1 J	0.88 J	2.4	1.28 B	3.47 B
cis-1,2-Dichloroethene	µg/L	27	43	40	11	33	37.1	45.5
Tetrachloroethene	µg/L	<20	5.7 J	8.1	3.2	12	5.63	17.8
trans-1,2-Dichloroethene	µg/L	9 J	17	7.1 J	4.3	15	9.54	13.6
Trichloroethene	µg/L	340	360	530	58	200	470	492
Vinyl chloride	µg/L	<20	<15	<7.7	<2	<1	<1	<10

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-158A

	Well ID	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
	Sample Date	4/13/2006	10/19/2006	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	681	410	50.3	3.7	26.9	29.4	255
1,1,2-Trichloroethane	µg/L	6.08	14.9	3.49	2.65	7.88 J	<1	5.1
1,1-Dichloroethene	µg/L	<1	0.818 J	0.592 J	<1	<1	1.65	<2
Carbon tetrachloride	µg/L	<1	0.754 J	<2	1.54	<1	0.825 J	<2
Chloroform	µg/L	2.62 B	3.64	1.44	1.36	1.01	3.94	0.876
cis-1,2-Dichloroethene	µg/L	49.7	60.7	95.3 J	14.6	8.05 J	54.4 J	64.2
Tetrachloroethene	µg/L	4.69	6.64	3.77 J	13.7	10.7	15	2.92
trans-1,2-Dichloroethene	µg/L	14	22.8	7.78	6.22	4.06	18	3.6
Trichloroethene	µg/L	689	678	514	42	97.3 J	408	304
Vinyl chloride	µg/L	<1	<1	0.663 J	<1	<1	<1	2.82

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-158A

	Well ID	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A	MW-158A
	Sample Date	10/16/2009	3/24/2010	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	156	27.8	27.2	5.03	0.771	0.663	<0.5
1,1,2-Trichloroethane	µg/L	2.52	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.67	0.155 J	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	8.93	0.295 J	0.302 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	1.96	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.456 J	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	69.9	3.87	3.01	1.3	0.426 J	0.37 J	0.302 J
Vinyl chloride	µg/L	1.15	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-159

	Well ID	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
	Sample Date	10/11/2004	11/8/2004	1/26/2005	3/24/2005	6/17/2005	11/19/2005	12/8/2005
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	3500	580	2000 J	2200	659	421	1.25
1,1,2-Trichloroethane	µg/L	<150	<33	6.3	7.8	3.27	2.25	<1
1,1-Dichloroethene	µg/L	<150	<33	<6.2	<7.1	<1	<1	<1
Carbon tetrachloride	µg/L	<150	<33	<6.2	<7.1	0.961 J	0.927 J	4.13
Chloroform	µg/L	<150	<33	2.9 J	4.2 J	1.27 B	1.6 B	12.1
cis-1,2-Dichloroethene	µg/L	100 J	98	62	80	39.4	46.7	10.5
Tetrachloroethene	µg/L	<150	<33	4 J	7.1	1.82	2.33	0.935 J
trans-1,2-Dichloroethene	µg/L	<150	58	12	15	9.78	5.76	1.73
Trichloroethene	µg/L	1700	790	830	1700	691	552	120
Vinyl chloride	µg/L	<150	<33	<6.2	<7.1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-159

	Well ID	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
	Sample Date	4/13/2006	10/18/2006	4/9/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	847	357	272	501	312	271	366
1,1,2-Trichloroethane	µg/L	2.5	19.6	37.4	66.4	99.8	92.8	92.2
1,1-Dichloroethene	µg/L	<1	<1	1.16	1.98	<10	7.33	<10
Carbon tetrachloride	µg/L	<1	0.493 J	<1	<1	<10	<1	<10
Chloroform	µg/L	1.22 B	1.02	1.03	1.72	<3	1.66	<3
cis-1,2-Dichloroethene	µg/L	36.4	55.4	156	392	1220	959	248
Tetrachloroethene	µg/L	1.71	2.63	3.81	9.33	6.28 J	5.48	6.24 J
trans-1,2-Dichloroethene	µg/L	7.64	6.37	17.9	28	26.6	46.2	17.5
Trichloroethene	µg/L	594	935	1660	2700	1410	1320	1280
Vinyl chloride	µg/L	<1	<1	0.514 J	1.14	7.79 J	17.7	3.83 J

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-159

	Well ID	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
	Sample Date	10/16/2009	3/24/2010	6/23/2010	9/22/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	483	133	69.9	75	37.8	40.6	32.5
1,1,2-Trichloroethane	µg/L	33.7	16.8	10.2	12.4	6.14	7.05	6.44
1,1-Dichloroethene	µg/L	2.96 J	3.26 J	4.81	8.51	5.86	5	4.42
Carbon tetrachloride	µg/L	<5	<5	<2	<1	<2	<1	<1
Chloroform	µg/L	0.923 J	<1.5	<0.6	0.568	0.285 J	0.301	0.289 J
cis-1,2-Dichloroethene	µg/L	82.2	54	55.4	62	45.6	50.7	49.9
Tetrachloroethene	µg/L	4.11 J	2.5 J	1.29 J	1.49	1.15 J	1.21	1.11
trans-1,2-Dichloroethene	µg/L	8.94	7.07	5.57	6.69	4.82	4.87	6.55
Trichloroethene	µg/L	983	505	280	293	200	232	193
Vinyl chloride	µg/L	<5	4.42 J	4.99	40.3	25.7	22.5	16.7

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-160

	Well ID	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160
	Sample Date	10/13/2004	1/28/2005	3/22/2005	6/17/2005	11/18/2005	4/12/2006	10/18/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	30	53	29	35.4	13.4	23.1	9.08
1,1,2-Trichloroethane	µg/L	<10	0.23 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<10	<1	<1	<1	<1	0.538 J	<1
Carbon tetrachloride	µg/L	<10	0.79 J	0.48 J	0.581 J	1.01	0.729 J	0.575 J
Chloroform	µg/L	<10	2.7	1.7	2.33 B	2.26 B	3.29 B	3.35
cis-1,2-Dichloroethene	µg/L	31	38	21	35.7	30.8	45	42.5
Tetrachloroethene	µg/L	12	21	15	14.7	14.7	13	19.8
trans-1,2-Dichloroethene	µg/L	17	18	10	16.3	12.2	18.1	17.8
Trichloroethene	µg/L	240	290	190	448	161	278	307
Vinyl chloride	µg/L	<10	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-160

	Well ID	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160
	Sample Date	4/10/2007	10/8/2007	4/11/2008	6/18/2008	10/20/2008	6/8/2009	10/15/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	24.9	175	3560	3090	2340	118	125
1,1,2-Trichloroethane	µg/L	<1	0.555 J	2.97 J	2.69	3.84 J	0.49 J	0.332 J
1,1-Dichloroethene	µg/L	0.708 J	1.05	<5	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.781 J	1.91	<5	1.14	0.388 J	<1	<1
Chloroform	µg/L	1.68	3.53	2.14	1.62	1.75 J	0.811	0.56
cis-1,2-Dichloroethene	µg/L	22.6	56.1	49.8	40.9	40.6 J	1.23	0.375 J
Tetrachloroethene	µg/L	14.5	18.8	10.6	9.43	9.87 J	1.34	0.251 J
trans-1,2-Dichloroethene	µg/L	8.63	15.6	9.32	7.36	5.81 J	<1	<1
Trichloroethene	µg/L	191	695	1130	1120	1050	21.8	8.39
Vinyl chloride	µg/L	<1	<1	<5	<1	<1	<1	<1 UJ

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-160

	Well ID	MW-160	MW-160	MW-160	MW-160	MW-160	MW-160
	Sample Date	3/24/2010	6/23/2010	9/23/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	5.63	4.79	0.764	0.254 J	0.39 J	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.948 J	<1	0.323 J	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-161

	Well ID	MW-161	MW-161	MW-161	MW-161	MW-161	MW-161	MW-161
	Sample Date	10/12/2004	6/15/2005	11/14/2005	4/12/2006	4/27/2006	10/19/2006	4/10/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	3100 J	4560	2680	2120	1790	1950	1170
1,1,2-Trichloroethane	µg/L	<50	9.26 J	7.58 J	5.71	6.36	3.55 J	<10
1,1-Dichloroethene	µg/L	<50	<10	<20	<1	<1	<10	<10
Carbon tetrachloride	µg/L	<50	<10	<20	0.339 J	0.45 J	<10	5.68 J
Chloroform	µg/L	<50	<10	<20	1.12 B	1.47 J	<3	2.1 J
cis-1,2-Dichloroethene	µg/L	31 J	48.5	43	38.4	51.8	38.5	42.5
Tetrachloroethene	µg/L	<50	7.22 J	7.68	13	7.79	10.1	6.49 J
trans-1,2-Dichloroethene	µg/L	<50	9.52 J	<20	5.12	5.43	<10	5.77 J
Trichloroethene	µg/L	1400 J	2170	1590	1470	1400	1640	1400
Vinyl chloride	µg/L	<50	<10	<20	<1	<1 UJ	<10	<10

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit
- UJ Undetected, reporting limit is inaccurate or imprecise

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-161

	Well ID	MW-161	MW-161	MW-161	MW-161	MW-161	MW-161	MW-161
	Sample Date	10/8/2007	4/11/2008	10/17/2008	4/14/2009	7/30/2009	10/15/2009	3/25/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	1850	594	2120	181	75.9	17.4	2.27
1,1,2-Trichloroethane	µg/L	6.46	<20	6.61	0.365 J	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<20	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	2.13	<20	0.39 J	<1	<1	<1	<1
Chloroform	µg/L	2.79	3.65 J	3.65	0.222 J	0.22 J	<0.3	0.129 J
cis-1,2-Dichloroethene	µg/L	55	15.7 J	27	2.1	1.34	0.309 J	<1
Tetrachloroethene	µg/L	10.2	<20	6.79	1.08	0.984 J	0.735 J	0.541 J
trans-1,2-Dichloroethene	µg/L	7.87	5.59 J	2.91	<1	<1	<1	<1
Trichloroethene	µg/L	818	342	952	97.4	45.3	11.3	2.92
Vinyl chloride	µg/L	<1	<20	<1	<1	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-161

	Well ID	MW-161	MW-161	MW-161	MW-161	MW-161
	Sample Date	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	1.47	3.28	2.28	2.2	0.727
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.142 J	0.141 J	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.696 J	0.664 J	0.968 J	1.13	1.13
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.43	4.78	3.62	4.14	2.06
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-162

	Well ID	MW-162	MW-162	MW-162	MW-162	MW-162	MW-162	MW-162
	Sample Date	10/12/2004	6/15/2005	11/14/2005	4/12/2006	4/26/2006	10/19/2006	4/10/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	1700	123	10.2	522	983	162 J	3030
1,1,2-Trichloroethane	µg/L	<100	<5	<1	0.99 J	1.98	0.36 J	<20
1,1-Dichloroethene	µg/L	<100	<5	<1	<1	<1	<1	<20
Carbon tetrachloride	µg/L	<100	<5	<1	<1	0.49 J	<1	<20
Chloroform	µg/L	<100	<5	0.463 B	1.49 B	3.36	0.988	<6
cis-1,2-Dichloroethene	µg/L	62 J	26.1	2.91	31.2	66.6 J	18.3	45.5
Tetrachloroethene	µg/L	<100	16.2 J	3.43	10.5	11.4	7.81	13.2 J
trans-1,2-Dichloroethene	µg/L	<100	7.46	<1	8.25	15.9	5.05	9.93 J
Trichloroethene	µg/L	1400	641	72.9	342	1150	445	1470
Vinyl chloride	µg/L	<100	<5	<1	<1	<1 UJ	<1 J	<20

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-162

	Well ID	MW-162	MW-162	MW-162	MW-162	MW-162	MW-162	MW-162
	Sample Date	10/8/2007	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/15/2009	3/25/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	7210	4160	7140	107	24.1	8.71	3.56
1,1,2-Trichloroethane	µg/L	6.73	<50	<50	<2	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<50	<50	<2	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<50	<50	<2	<1	<1	<1
Chloroform	µg/L	1.65	<15	<15	<0.6	0.142 J	0.159 J	0.151 J
cis-1,2-Dichloroethene	µg/L	41	23.9 J	38.7 J	0.579 J	<1	<1	<1
Tetrachloroethene	µg/L	6.24	<50	<50	1.99 J	0.374 J	0.308 J	<1
trans-1,2-Dichloroethene	µg/L	5.28	<50	<50	<2	<1	<1	<1
Trichloroethene	µg/L	1120	792	1610	74.6	15.4	4.54	3.25
Vinyl chloride	µg/L	<1	<50	<50	<2	<1	<1 UJ	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-162

Analyte	Well ID	MW-162	MW-162	MW-162	MW-162	MW-162
	Sample Date	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	0.258 J	<0.5	<0.5	0.212 J	0.359 J
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.165 J	0.135 J	<0.3	0.159 J	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.322 J	0.278 J	<1	<1	0.554 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-163

	Well ID	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163
	Sample Date	10/14/2004	6/15/2005	11/17/2005	4/13/2006	4/27/2006	10/19/2006	4/10/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	4800	3420 J	2080	1980	2420	538	642
1,1,2-Trichloroethane	µg/L	<100	7.43 J	4.95	4.77	6.6	17.3	61.2
1,1-Dichloroethene	µg/L	<100	<10	<1	<1	<1	<1	<5
Carbon tetrachloride	µg/L	<100	<10	0.882 J	<1	0.83 J	<1	<5
Chloroform	µg/L	<100	<10	0.88 B	1.28 B	2.14	0.446	0.883 J
cis-1,2-Dichloroethene	µg/L	41 J	39.6	24	39.7	61.6	98.6	113
Tetrachloroethene	µg/L	<100	5.09 J	4.3	8.68	12.6	4.35	3.5 J
trans-1,2-Dichloroethene	µg/L	<100	9.22 J	2.68	3.55	5.15	17.2	14.8
Trichloroethene	µg/L	1700	1740	1300	1860	2030	527	485
Vinyl chloride	µg/L	<100	<10	<1	<1	<1 UJ	3.63	3.91 J

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-163

	Well ID	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163	MW-163
	Sample Date	10/8/2007	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/16/2009	3/25/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	860	488	1710	233	131	143	11.8
1,1,2-Trichloroethane	µg/L	23.8	3.37 J	6.96	<2	0.369 J	0.261 J	<1
1,1-Dichloroethene	µg/L	<1	<5	<5	<2	<1	<1	<1
Carbon tetrachloride	µg/L	0.683 J	<5	<5	<2	<1	<1	<1
Chloroform	µg/L	1.59	11.9	7.67	0.769	0.4	0.974	<0.3
cis-1,2-Dichloroethene	µg/L	59	9.07	29.9	2.15	3.22	2.45	0.303 J
Tetrachloroethene	µg/L	4.93	<5	<5	0.802 J	1.23	0.93 J	0.487 J
trans-1,2-Dichloroethene	µg/L	10.9	1.84 J	3.81 J	<2	0.327 J	0.321 J	<1
Trichloroethene	µg/L	699	80.3	615	85.7	87.1	65.8	11.1
Vinyl chloride	µg/L	2.15	<5	<5	<2	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-163

	Well ID	MW-163	MW-163	MW-163	MW-163	MW-163
	Sample Date	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	11.3	5.32	1.78	4.66	5.74
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.142 J	0.181 J	0.165 J	0.19 J	<0.3
cis-1,2-Dichloroethene	µg/L	0.272 J	<1	<1	0.359 J	<1
Tetrachloroethene	µg/L	0.623 J	0.634 J	0.553 J	0.698 J	0.884 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	11.8	6.53	3.4	7.43	10.7
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-164

	Well ID	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
	Sample Date	10/15/2004	6/15/2005	11/14/2005	4/12/2006	10/19/2006	4/10/2007	10/8/2007
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<2.5	4.65 B	2.14	2.6	3.05	45	17.7
1,1,2-Trichloroethane	µg/L	<2.5	<1	<1	<1	<1	1.75	0.719 J
1,1-Dichloroethene	µg/L	<2.5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4	3.66	5.44	2.99	16.8	24.8	9.87
Chloroform	µg/L	9.1	8.82	8.44 B	9.56	52.6	247	126
cis-1,2-Dichloroethene	µg/L	6.3	7.86	8.05	6.87	8.79	18.1	4.38
Tetrachloroethene	µg/L	<2.5	<1	0.576	0.637 J	2.03	3.62	2.13
trans-1,2-Dichloroethene	µg/L	0.97 J	1.22	0.599 J	0.974 J	1.49	2.66	1.39
Trichloroethene	µg/L	60	53.3	75.5	62.9 J	92.6	136 J	61.1
Vinyl chloride	µg/L	<2.5	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

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

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HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-164

	Well ID	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
	Sample Date	4/14/2008	10/17/2008	4/14/2009	7/30/2009	10/15/2009	3/25/2010	6/22/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	13.4	6.83	20.8	26.3	32	21.3	21
1,1,2-Trichloroethane	µg/L	0.517 J	0.403 J	1.07	1.27	1.41	1.07	0.909 J
1,1-Dichloroethene	µg/L	<1 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.42 J	4.43	10.4	8.71	7.78	6.74	6.26
Chloroform	µg/L	37.1	32.2	76.1	79.5	79.3	56.5	52.7
cis-1,2-Dichloroethene	µg/L	2.71	2.91	17.4	20.2	18.6	15	13.2
Tetrachloroethene	µg/L	0.894	0.728 J	1.89	1.52	1.33	1.49	1.15
trans-1,2-Dichloroethene	µg/L	0.57 J	0.41 J	1.61	1.99	1.91	1.57	1.25
Trichloroethene	µg/L	24.9 J	27	93.3	98.2	89.1	75.5	58.5
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 UJ	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

- J Estimated results based on QC data or reported below RL
- B Estimated results possibly biased high or false positive based on blank data
- < Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-164

	Well ID	MW-164	MW-164	MW-164	MW-164
	Sample Date	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	11.9	5.48	4.08	2.64
1,1,2-Trichloroethane	µg/L	0.524 J	0.284 J	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	4.32	2.53	2.06	1.62
Chloroform	µg/L	29.5	15.6	13.9	9
cis-1,2-Dichloroethene	µg/L	8.57	4.74	3.8	2.25
Tetrachloroethene	µg/L	0.962 J	0.637 J	0.383 J	0.385 J
trans-1,2-Dichloroethene	µg/L	0.703 J	0.381 J	0.357 J	<1
Trichloroethene	µg/L	39.7	23.5	17.8	12.1
Vinyl chloride	µg/L	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-165

Analyte	Well ID	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165
	Sample Date	11/21/2004	1/25/2005	3/21/2005	6/16/2005	11/18/2005	4/13/2006	10/18/2006
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	24	8.9	12	21.8	21.8	8	3.5
1,1,2-Trichloroethane	µg/L	<9.1	0.74 J	0.55 J	1.16	1.58	1.51	0.655 J
1,1-Dichloroethene	µg/L	<9.1	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	11	8	7.8	1.67	2.68	<1	3.85
Chloroform	µg/L	140	64	58	77	65.4	<1	7.48
cis-1,2-Dichloroethene	µg/L	7.1 J	10	11	7.64	8.06	8.65	14.6
Tetrachloroethene	µg/L	2.3 J	1.8 J	2.1	<1	1.04	1.27	1.23
trans-1,2-Dichloroethene	µg/L	<9.1	1.3 J	2.2	2.49	1.64 J	2.07	2.84
Trichloroethene	µg/L	64	48	53	37.2	46.5	60.4	187
Vinyl chloride	µg/L	<9.1	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-165

	Well ID	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165	MW-165
	Sample Date	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	1.9	2.31	3.04	4.94	5.28	3.92	25.1
1,1,2-Trichloroethane	µg/L	0.3 J	0.3 J	0.343 J	0.491 J	0.652 J	1.62	2.26
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	3.9	8.5	9.32	4.59	2.93	<1	<1
Chloroform	µg/L	7.6	8.57	61.4	34.3	13.5	1.04	2.74
cis-1,2-Dichloroethene	µg/L	9.31	7.25	9.59	9.28	13.8	18.7	7.7
Tetrachloroethene	µg/L	1.36	1.42	1.64	1.3	1.93	1.39	1.43
trans-1,2-Dichloroethene	µg/L	2.44	2.03	1.99	1.62	2.2	3.26	1.74
Trichloroethene	µg/L	153	82.8 J	87.1	94.1	111	194	187
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-165

	Well ID	MW-165	MW-165	MW-165	MW-165	MW-165
	Sample Date	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	38.8	34.7	14.5	14.3	10.6
1,1,2-Trichloroethane	µg/L	1.96	1.93	1.46	1.52	1.18
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	1.19	0.927	0.618	0.245 J	0.502
cis-1,2-Dichloroethene	µg/L	3.6	1.15	0.456 J	0.459 J	0.546 J
Tetrachloroethene	µg/L	0.807 J	0.418 J	0.327 J	<1	<1
trans-1,2-Dichloroethene	µg/L	0.699 J	0.324 J	<1	<1	<1
Trichloroethene	µg/L	67.7	35.4	19.8	11	8.33
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-165A

	Well ID	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A
	Sample Date	11/18/2004	1/24/2005	3/21/2005	6/16/2005	11/18/2005	4/13/2006	10/18/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	7.8	5.4	5.5	12	4.42	1.14	1.65
1,1,2-Trichloroethane	µg/L	<2	<2	0.37 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<2	<2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.4	6.9	9.8	4.63	6.69	1.93	4.91
Chloroform	µg/L	24	15	24	48.5	3.52 B	5.72 B	7.98
cis-1,2-Dichloroethene	µg/L	13	9.3	10	6.05	2.41	6.05	5.06
Tetrachloroethene	µg/L	1.3 J	1.1 J	1.4	<1	0.955 J	0.608 J	1.35
trans-1,2-Dichloroethene	µg/L	1.7 J	1.3 J	1.8	0.986 J	1.31	1.15	2.22
Trichloroethene	µg/L	69	53	64	46.7	88.7	69.8	86.7
Vinyl chloride	µg/L	<2	<2	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-165A

	Well ID	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A
	Sample Date	4/10/2007	10/8/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/24/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	2	2.98	2.77	10.5	1.1	12.5	45.7
1,1,2-Trichloroethane	µg/L	<1	<1	<1	0.496 J	0.388 J	1.18	0.973 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.23	2.62	11.3	10.8	<1	<1	<1
Chloroform	µg/L	18	66.9	49.8	82.7	1.94	1.21	1.39
cis-1,2-Dichloroethene	µg/L	9.46	7.63	7.3	10.2	5.3	1.99	0.421 J
Tetrachloroethene	µg/L	1.57	2.49	2.44	2.32	0.906 J	0.252 J	<1
trans-1,2-Dichloroethene	µg/L	1.96	1.57	1.4	1.38	0.964 J	<1	<1
Trichloroethene	µg/L	49.6	53.1	32.6	112	91.5	35.5	6.29
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-165A

	Well ID	MW-165A	MW-165A	MW-165A	MW-165A	MW-165A
	Sample Date	6/22/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	104	44.7	35.6	79	33.9
1,1,2-Trichloroethane	µg/L	0.457 J	0.28 J	<1	0.461 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	0.918	<0.3	0.15 J	0.793	0.41
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	0.414 J	0.251 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	4.6	2.3	3.64	13.1	6.67
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

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

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-166

	Well ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
	Sample Date	11/18/2004	11/19/2004	1/27/2005	3/23/2005	6/17/2005	11/19/2005	4/13/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	4.2	4.2	3.7	3.5	1.2	1.48	13.4
1,1,2-Trichloroethane	µg/L	0.32	0.32 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.83	0.83 J	2.9	1.9	1.68	1.17	8.54
Chloroform	µg/L	30	30	24	11	9.01	7.54	79.3
cis-1,2-Dichloroethene	µg/L	4.3	4.3	3.4	2.6	1.51	3.43	5.21
Tetrachloroethene	µg/L	0.79	0.79 J	0.68 J	0.87 J	<1	0.561 J	1.24
trans-1,2-Dichloroethene	µg/L	0.49	0.49 J	0.41 J	0.63 J	<1	0.438 J	1.17
Trichloroethene	µg/L	12	12	10	11	6.27	6.92	38
Vinyl chloride	µg/L	--	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-166

	Well ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
	Sample Date	10/20/2006	4/9/2007	10/5/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	9.59	5.47	28.5	8.39	0.519	17.9	15.3
1,1,2-Trichloroethane	µg/L	0.422 J	<1	0.946 J	<1	<1	0.729 J	0.525 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	16.5	8	8.81	8.3	5.38	12.3	11.3
Chloroform	µg/L	68.5	33.1	140	52.2	14.1	95.8	80.9
cis-1,2-Dichloroethene	µg/L	5.41	2.69	5.44	2.49	1.2	5.57	4.42
Tetrachloroethene	µg/L	1.68	1.28	2.47	1.65	0.621 J	2.07	2.03
trans-1,2-Dichloroethene	µg/L	0.937 J	0.685 J	1.15	0.955 J	0.354 J	1.17	0.866 J
Trichloroethene	µg/L	43.7	25.6	63.9	25.7	15	63.3	48
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-166

	Well ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
	Sample Date	3/23/2010	6/23/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT						
1,1,2,2-Tetrachloroethane	µg/L	10.1	8.91	11.4	9.34	9.82	14.3
1,1,2-Trichloroethane	µg/L	0.756 J	0.518 J	0.458 J	0.435 J	0.445 J	0.716 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	6.1	2.95	6.16	6.04	5.09	5.5
Chloroform	µg/L	65	34.7	22.8	17.9	21.8	67.5
cis-1,2-Dichloroethene	µg/L	5.03	6.6	15.4	13.4	13.5	6.33
Tetrachloroethene	µg/L	1.38	1.22	1.99	2.03	1.36	1.49
trans-1,2-Dichloroethene	µg/L	0.919 J	1.08	2.97	2.06	1.64	0.864 J
Trichloroethene	µg/L	37.8	59.6	223	154	129	50.2
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1

Notes:

-- not analyzed
µg/L micrograms per liter
RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL
< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-166A

	Well ID	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A
	Sample Date	11/19/2004	1/27/2005	3/23/2005	6/17/2005	11/19/2005	4/13/2006	10/20/2006
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	1.4	3.9	3.9	3.08	1.89	13.6	5.15
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	6.1	8.3	6.91	3.5	9.75	7.06
Chloroform	µg/L	13 B	37	38	31.3	17.2	57	27.7
cis-1,2-Dichloroethene	µg/L	0.77 J	2.6	2.8	3.08	1.89	2.33	2.14
Tetrachloroethene	µg/L	0.24 J	0.8 J	0.9 J	0.732 J	0.516 J	1.06	0.792 J
trans-1,2-Dichloroethene	µg/L	<1	0.52 J	0.65 J	0.69 J	0.482 J	<1	0.433 J
Trichloroethene	µg/L	5.2	19	24	19.8	17.6	25.8	24.3 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-166A

	Well ID	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A
	Sample Date	4/9/2007	10/5/2007	4/11/2008	10/20/2008	6/8/2009	10/16/2009	3/23/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	5.38	12.6	3.76	0.149 J	1.92	10	6.98
1,1,2-Trichloroethane	µg/L	<1	0.417 J	<1	<1	<1	0.319 J	0.265 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	7.29	5.62	4.44	3.17	5	2.26	1.88
Chloroform	µg/L	30.1	65.5	34.4	14.5	16.4	24.8	23
cis-1,2-Dichloroethene	µg/L	2.42	3.54	2.57	1.82	1.85	1.76	3.03
Tetrachloroethene	µg/L	0.854 J	1.57	1.24	0.694 J	0.725 J	0.367 J	0.402 J
trans-1,2-Dichloroethene	µg/L	0.527 J	1.04	1.16	0.75 J	0.42 J	0.266 J	<1
Trichloroethene	µg/L	25.7	81.5	69.9	62.7	22.1	19.1	18.4
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-166A

	Well ID	MW-166A	MW-166A	MW-166A	MW-166A	MW-166A
	Sample Date	6/23/2010	9/23/2010	1/25/2011	3/28/2011	9/27/2011
Analyte	UNIT					
1,1,2,2-Tetrachloroethane	µg/L	4.23	12.6	6.27	5.33	12.1
1,1,2-Trichloroethane	µg/L	<1	0.503 J	0.344 J	0.355 J	0.497 J
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	0.996 J	2.99	2.4	1.67	3.24
Chloroform	µg/L	7.54	26.5	18.6	21.2	54.4
cis-1,2-Dichloroethene	µg/L	3.85	9.91	7.69	5.47	4.57
Tetrachloroethene	µg/L	0.647 J	0.748 J	0.973 J	0.715 J	0.952 J
trans-1,2-Dichloroethene	µg/L	0.615 J	0.912 J	1.05	0.532 J	0.408 J
Trichloroethene	µg/L	53.5	57.5	85.9	38.2	28.9
Vinyl chloride	µg/L	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-232

	Well ID	MW-232	MW-232	MW-232	MW-232	MW-232	MW-232	MW-232
	Sample Date	12/4/2007	4/11/2008	10/21/2008	4/15/2009	7/29/2009	10/16/2009	3/24/2010
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	0.163	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	1.08	0.763 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	1.6	1.27	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.185	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	7.8	22.4	<1	<1	0.326 J	<1	<1
Tetrachloroethene	µg/L	0.334	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	0.447	0.426 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	26.9	0.39 J	<1	<1	0.393 J	<1	0.308 J
Vinyl chloride	µg/L	<1	0.611 J	13.2	4.14	1.51	0.914 J	1.62

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-232

	Well ID	MW-232	MW-232	MW-232	MW-232
	Sample Date	6/23/2010	9/22/2010	3/28/2011	9/27/2011
Analyte	UNIT				
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1
Trichloroethene	µg/L	<1	0.335 J	<1	0.275 J
Vinyl chloride	µg/L	2.11	0.531 J	0.585 J	0.483 J

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-241

	Well ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
	Sample Date	7/28/2009	10/15/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT								
1,1,2,2-Tetrachloroethane	µg/L	16.8	0.744	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.227 J	<0.3	<0.3	<0.3	<0.3	<0.3	0.175 J	0.132 J
cis-1,2-Dichloroethene	µg/L	0.262 J	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	3.23	2.75	1.03	0.593 J	0.573 J	0.741 J	0.362 J	0.736 J
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-242

	Well ID	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/26/2011
Analyte	UNIT								
1,1,2,2-Tetrachloroethane	µg/L	1040	229	63.3	29.8	15.7	2.83	4.46	0.937
1,1,2-Trichloroethane	µg/L	8	3.34	0.75 J	0.328 J	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<2	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<2	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.897	0.578 J	0.188 J	0.173 J	0.198 J	0.165 J	<0.3	0.384
cis-1,2-Dichloroethene	µg/L	21.6	15.1	5.08	1.94	0.804 J	<1	<1	<1
Tetrachloroethene	µg/L	4.54	<2	0.373 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	3.99	1.75 J	1.01	0.429 J	<1	<1	<1	<1
Trichloroethene	µg/L	308	26.9	24.1	10.9	7.16	3.57	2.09	1.32
Vinyl chloride	µg/L	<1	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-243

	Well ID	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243
	Sample Date	7/28/2009	10/15/2009	3/24/2010	6/22/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT								
1,1,2,2-Tetrachloroethane	µg/L	90	89.5	26.1	15.6	12.2	4.53	4.87	4.42
1,1,2-Trichloroethane	µg/L	3.04	0.806 J	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.315	0.233 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	11.4	10.3	3.34	0.796 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	2.77	2.48	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	3.75	3.08	0.33 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	146	138	16	4.92	1.76	1.89	2.63	1.56
Vinyl chloride	µg/L	<1	<1 UJ	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-244

	Well ID	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244
	Sample Date	7/30/2009	10/15/2009	3/24/2010	6/23/2010	9/22/2010	1/26/2011	3/28/2011	9/27/2011
Analyte	UNIT								
1,1,2,2-Tetrachloroethane	µg/L	1620	953	52.7	13.7	2.88	1.48	1.49	2.59
1,1,2-Trichloroethane	µg/L	14.5	7.89	0.894 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	6.73	<5	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<5	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	1.55	1.26 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	53.3	17	1.06	0.549 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	3.17	<5	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	5.4	1.79 J	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	346	131	4.56	2.78	0.389 J	0.753 J	0.723 J	0.624 J
Vinyl chloride	µg/L	5.45	6.23	2.37	0.651 J	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-245

Analyte	Well ID	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
	Sample Date	7/28/2009	10/16/2009	3/24/2010	6/22/2010	9/22/2010	1/25/2011	3/28/2011	9/27/2011
	UNIT								
1,1,2,2-Tetrachloroethane	µg/L	312	383	70.7	27.9	10.7	3.81	2.14	1.42
1,1,2-Trichloroethane	µg/L	8.03	3.83	0.823 J	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	2.03	1.85 J	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<2	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.438	0.338 J	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	46.1	25.8	1.95	0.55 J	<1	<1	<1	<1
Tetrachloroethene	µg/L	6.38	4.55	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	14.1	5.99	0.41 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	473	359	21.5	5.46	2.31	1.59	1.26	0.824 J
Vinyl chloride	µg/L	0.503 J	<2	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-246

	Well ID	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
	Sample Date	7/27/2009	10/16/2009	3/24/2010	6/22/2010	9/23/2010	1/25/2011	3/28/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	1140	2290	74.6	24.1	11.1	9.79	10.8
1,1,2-Trichloroethane	µg/L	29.4	57.7	3.28	2.91	0.936 J	1.27	0.689 J
1,1-Dichloroethene	µg/L	36.2	18.2	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<10	<1	<1	<1	<1	<1
Chloroform	µg/L	0.829	<3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	375	401	5.72	1.25	0.359 J	1.52	0.582 J
Tetrachloroethene	µg/L	5.3	5.47 J	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	18.1	24.3	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1000	1800	14.7	3.75	1.17	1.75	1.41
Vinyl chloride	µg/L	19.1	10.3	<1	<1	<1 J	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-246

Analyte	Well ID	MW-246
	Sample Date	9/27/2011
	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	14.8
1,1,2-Trichloroethane	µg/L	0.294 J
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	0.472
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	1.74
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-247

	Well ID	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
	Sample Date	7/30/2009	10/16/2009	3/24/2010	6/23/2010	9/23/2010	1/25/2011	3/28/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	27.3	18.6	<0.5	11.4	20.4	44.8	24.7
1,1,2-Trichloroethane	µg/L	1.67	1.09	<1	<1	<1	0.272 J	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	5.85	3.04	0.378 J	<1	<1	<1	<1
Chloroform	µg/L	193	120	0.248 J	3.45	0.229 J	2.39	0.525
cis-1,2-Dichloroethene	µg/L	14.3	15.7	<1	0.421 J	<1	0.826 J	<1
Tetrachloroethene	µg/L	3.81	3.38	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	2.38	2.12	<1	<1	<1	<1	<1
Trichloroethene	µg/L	134	123	0.431 J	2.95	2.21	12.1	7.82
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-247

	Well ID	MW-247
	Sample Date	9/27/2011
Analyte	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	5.59
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	1.84
cis-1,2-Dichloroethene	µg/L	0.847 J
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	2.53
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-248

	Well ID	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248
	Sample Date	7/27/2009	10/16/2009	3/26/2010	6/22/2010	9/23/2010	1/26/2011	3/28/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	0.589	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field - Defense Depot Memphis, Tennessee

MW-248

Analyte	Well ID	MW-248
	Sample Date	9/27/2011
	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	<0.5
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	<1
Chloroform	µg/L	<0.3
cis-1,2-Dichloroethene	µg/L	<1
Tetrachloroethene	µg/L	<1
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	<1
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-249

	Well ID	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/22/2010	9/23/2010	1/26/2011	3/28/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	5.03	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	0.577 J	0.437 J	1.19	1.46
Chloroform	µg/L	<0.3	<0.3	0.427	0.452	0.399	2.23	2.59
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	0.263 J	0.29 J
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	0.703 J	0.693 J	0.519 J	1.88	1.83
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
 OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
 Dunn Field - Defense Depot Memphis, Tennessee

MW-249

Analyte	Well ID	MW-249
	Sample Date	9/27/2011
	UNIT	
1,1,2,2-Tetrachloroethane	µg/L	0.6
1,1,2-Trichloroethane	µg/L	<1
1,1-Dichloroethene	µg/L	<1
Carbon tetrachloride	µg/L	3.47
Chloroform	µg/L	19.9
cis-1,2-Dichloroethene	µg/L	0.892 J
Tetrachloroethene	µg/L	0.51 J
trans-1,2-Dichloroethene	µg/L	<1
Trichloroethene	µg/L	12.4
Vinyl chloride	µg/L	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-250

	Well ID	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/23/2010	9/23/2010	4/25/2011	9/27/2011
Analyte	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1 J	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

< Not detected at sample reporting limit

HISTORICAL CVOC RESULTS
OFF DEPOT ANNUAL GROUNDWATER MONITORING REPORT - 2011
Dunn Field - Defense Depot Memphis, Tennessee

MW-251

Analyte	Sample Name	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251
	Sample Date	7/29/2009	10/16/2009	3/24/2010	6/23/2010	9/22/2010	4/25/2011	9/26/2011
	UNIT							
1,1,2,2-Tetrachloroethane	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	µg/L	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	3.33	3.8	3.15	2.9	3.77	3.56	4.12
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1	<1	<1
Chloroform	µg/L	0.313	0.311	0.197 J	0.254 J	0.306	0.276 J	0.322
cis-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	0.572 J	0.697 J	0.644 J	0.621 J	0.699 J	0.716 J	0.626 J
trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	0.707 J	0.396 J	0.34 J	0.256 J	0.366 J	0.335 J	<1
Vinyl chloride	µg/L	<1	<1	<1	<1	<1	<1	<1

Notes:

µg/L micrograms per liter

RL reporting limit

DQE Flags:

J Estimated results based on QC data or reported below RL

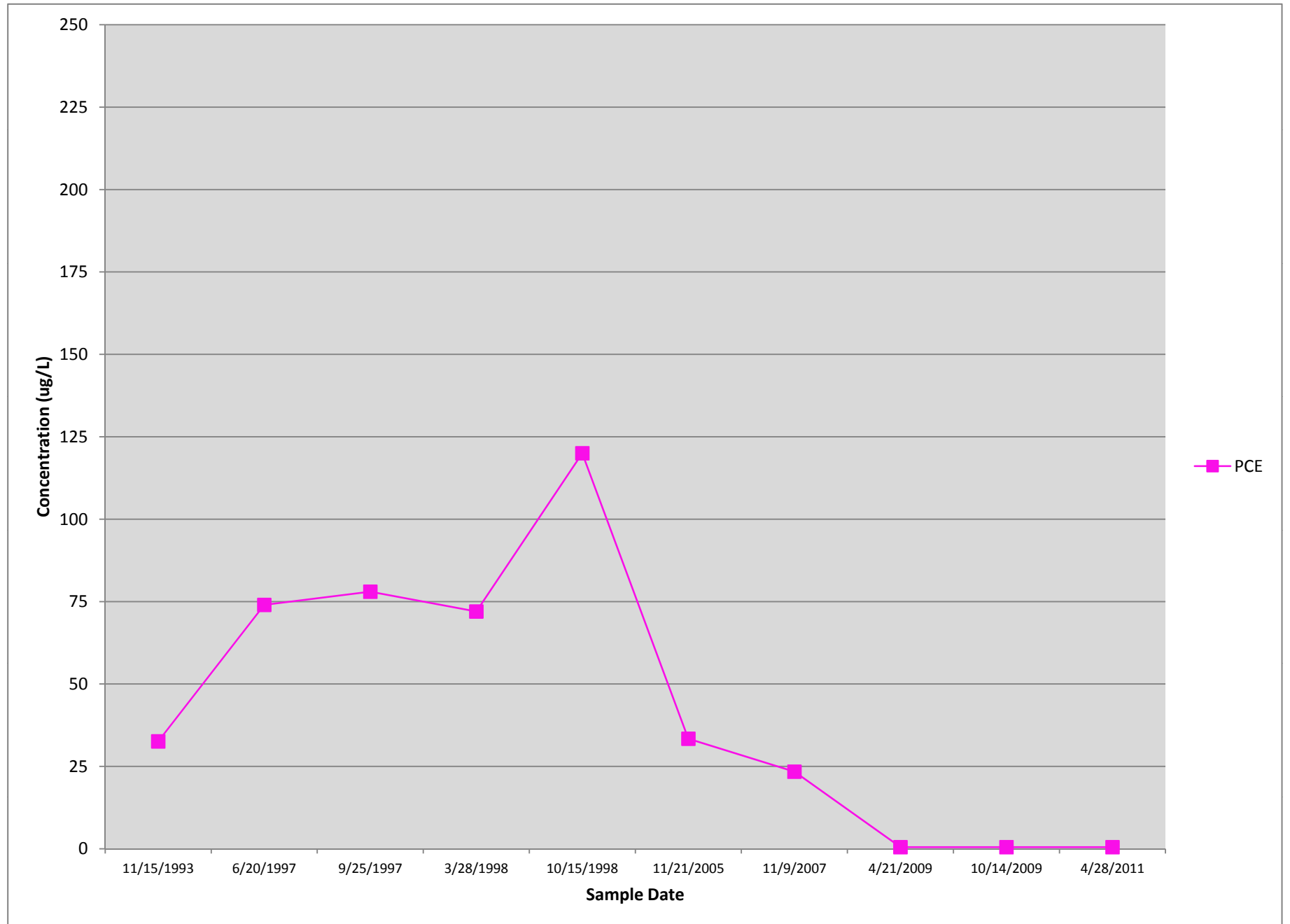
< Not detected at sample reporting limit

APPENDIX D
CVOC TIME-TREND PLOTS

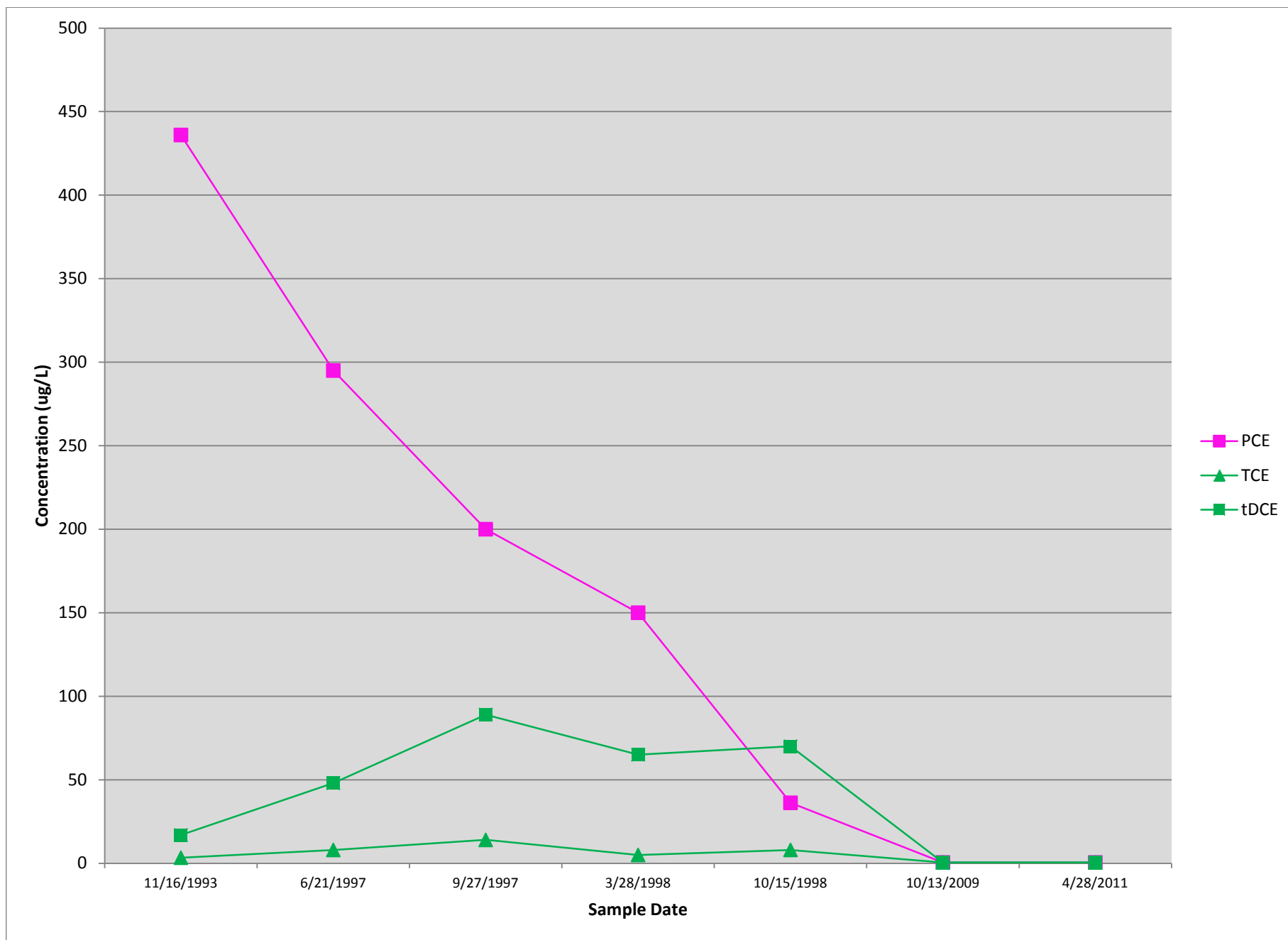
APPENDIX D-1

**LTM WELLS
CVOC TIME-TREND PLOTS**

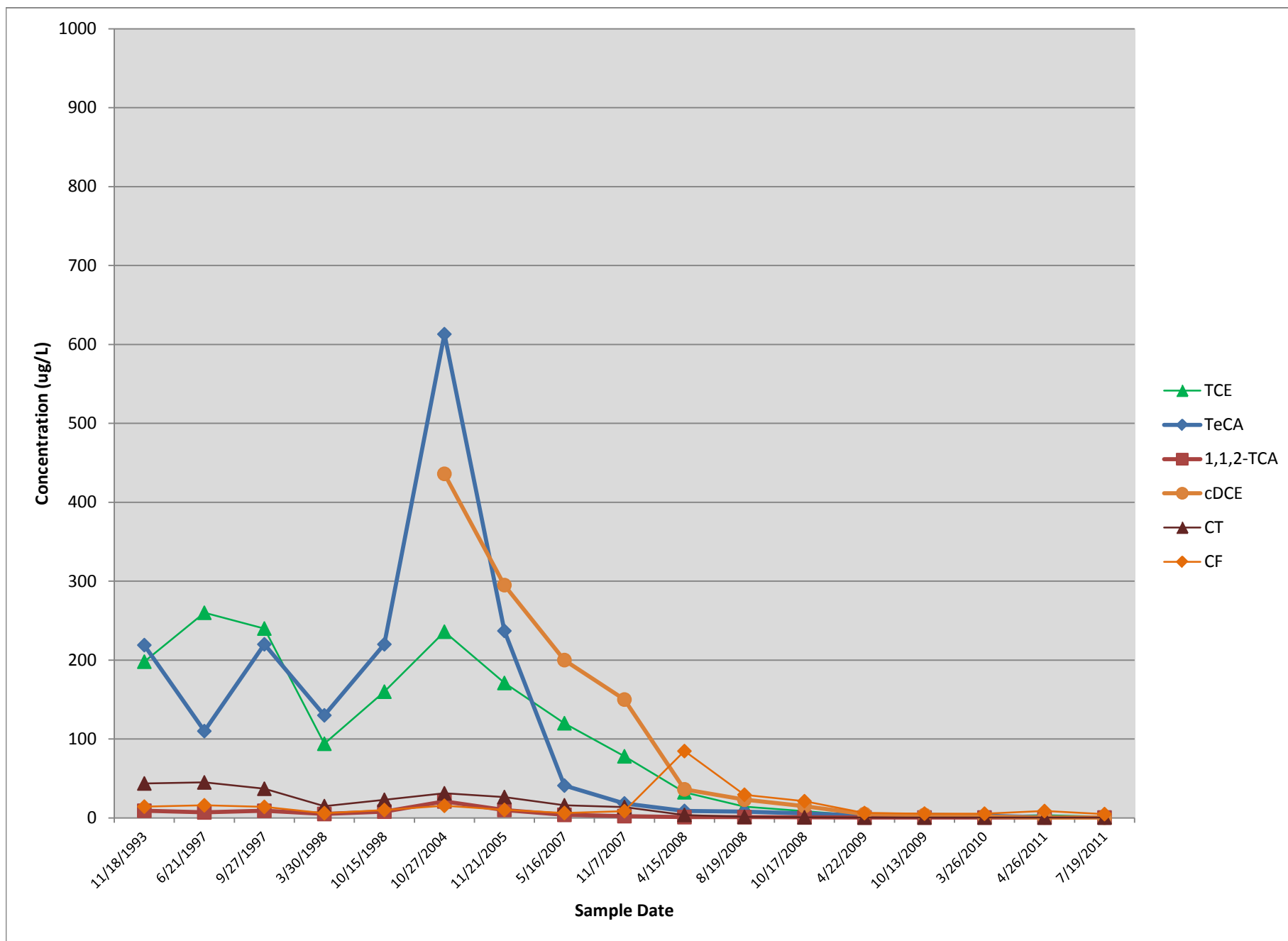
MW-04



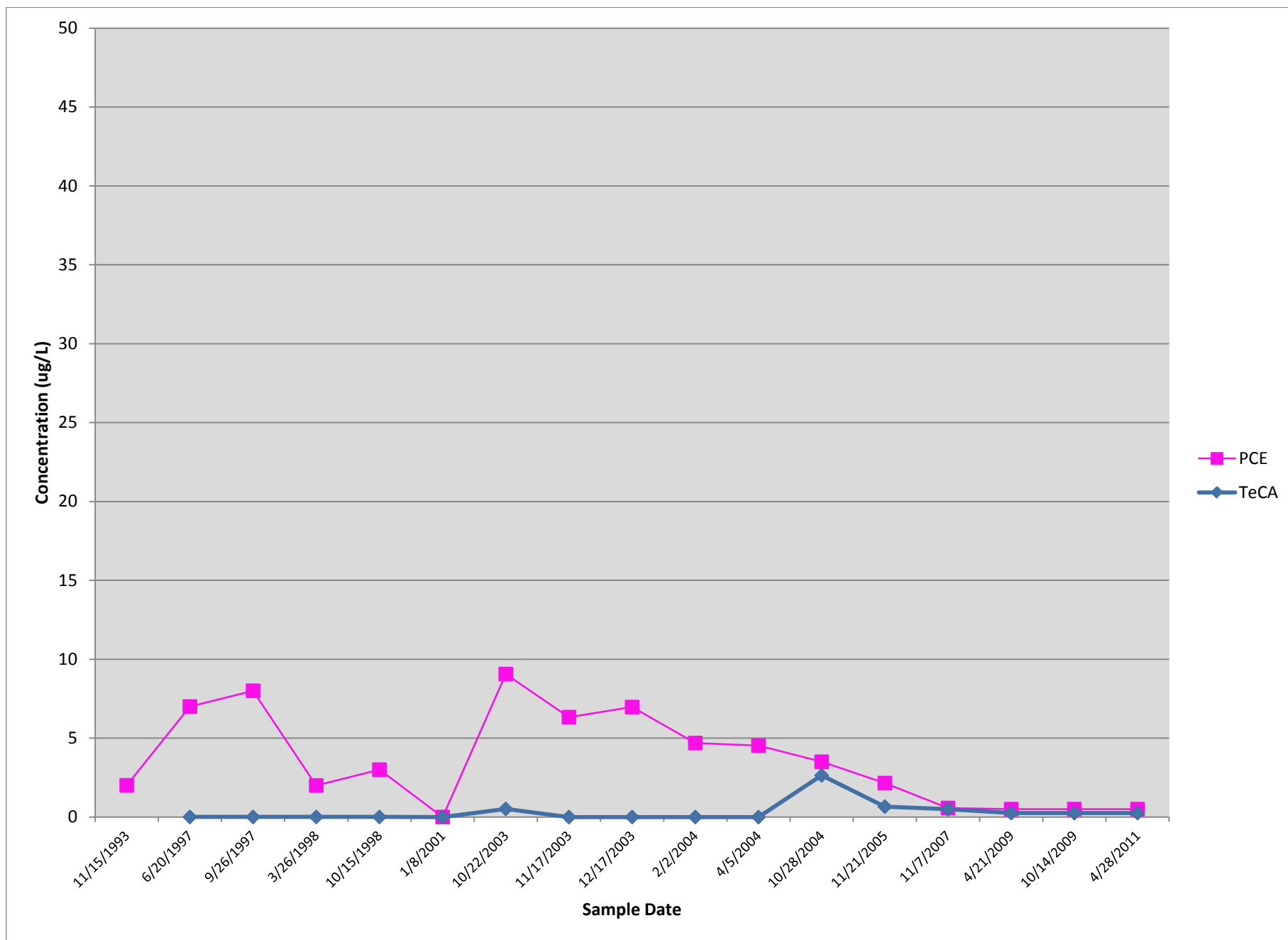
MW-05



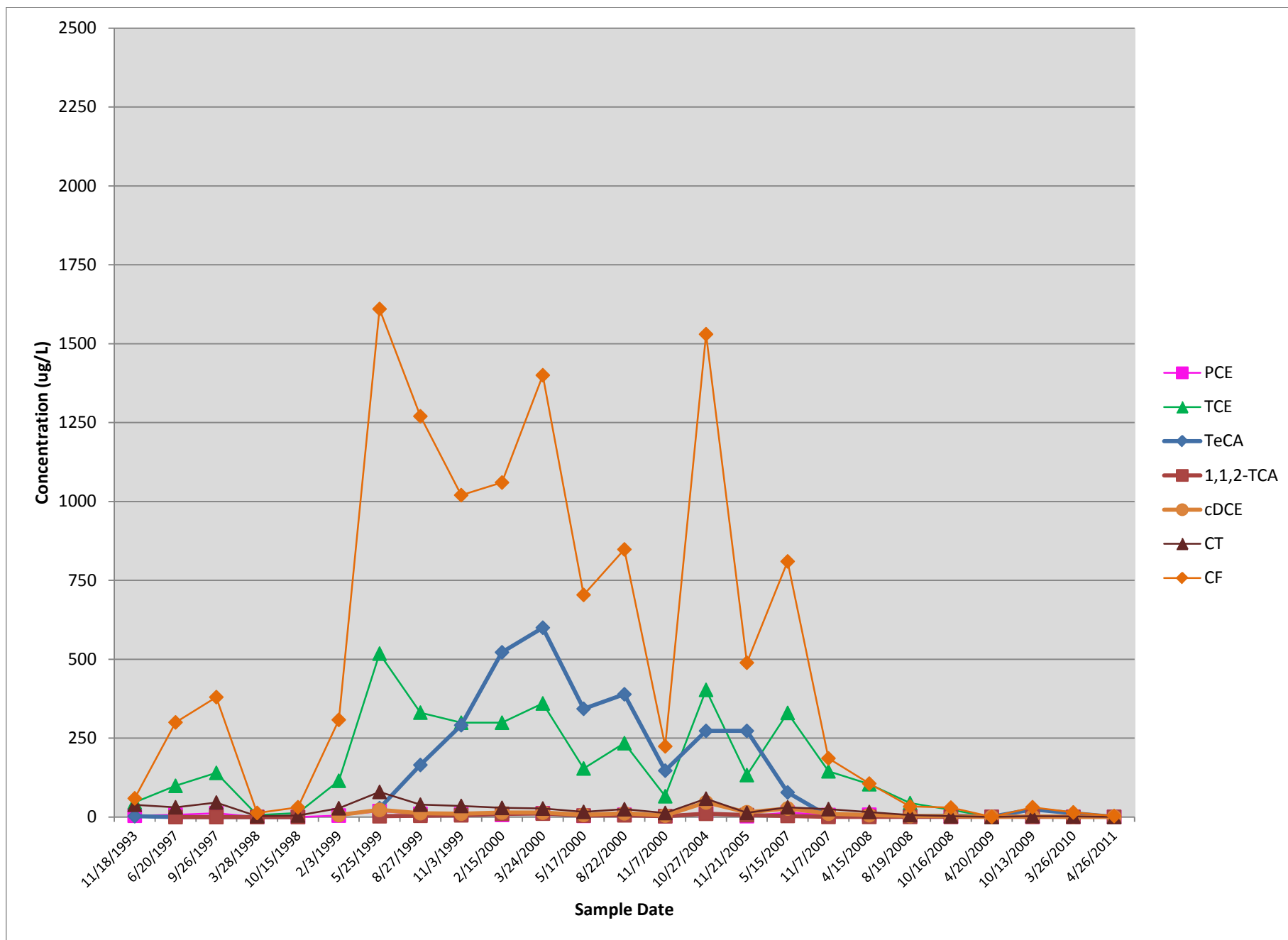
MW-06



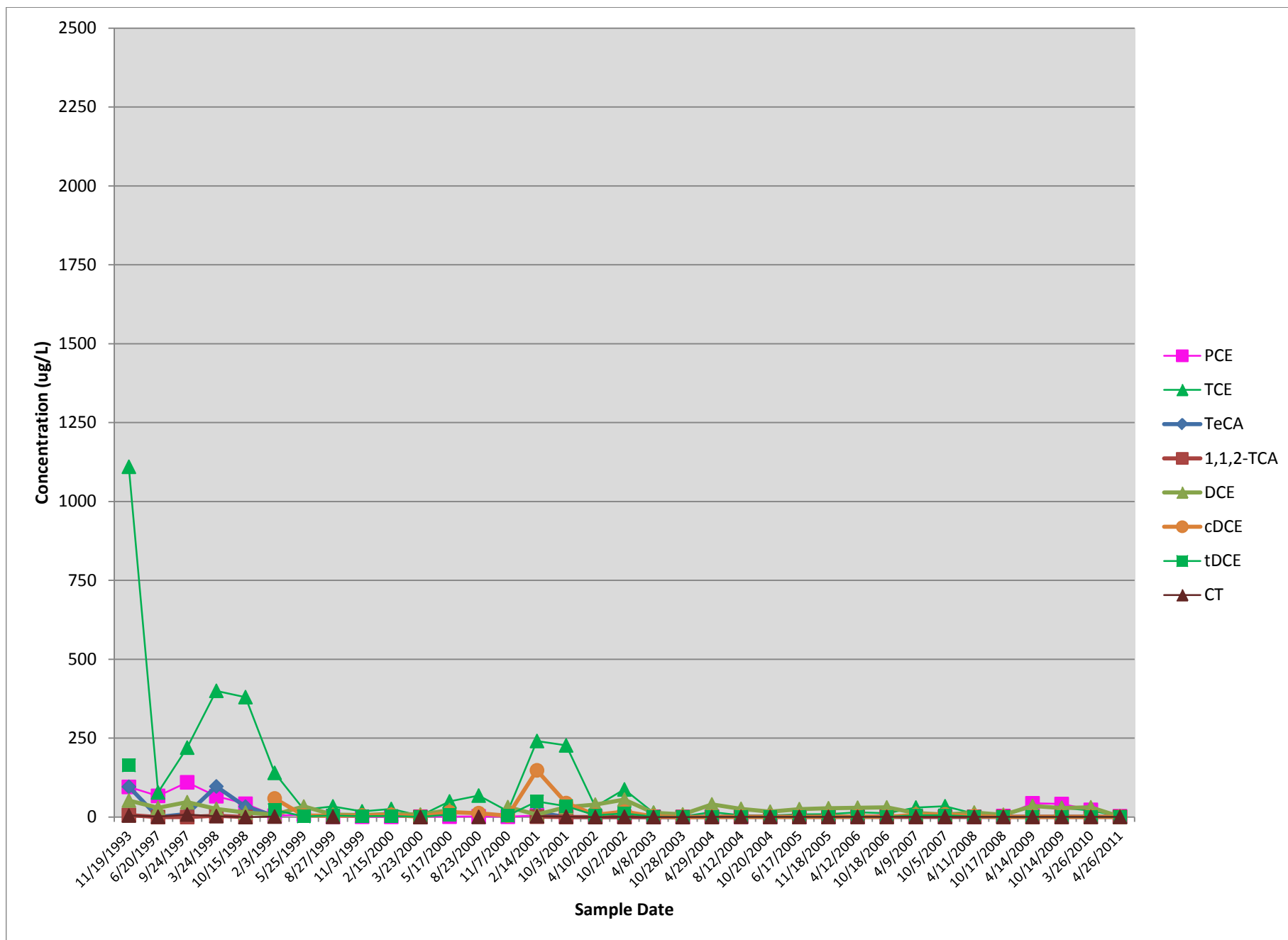
MW-13

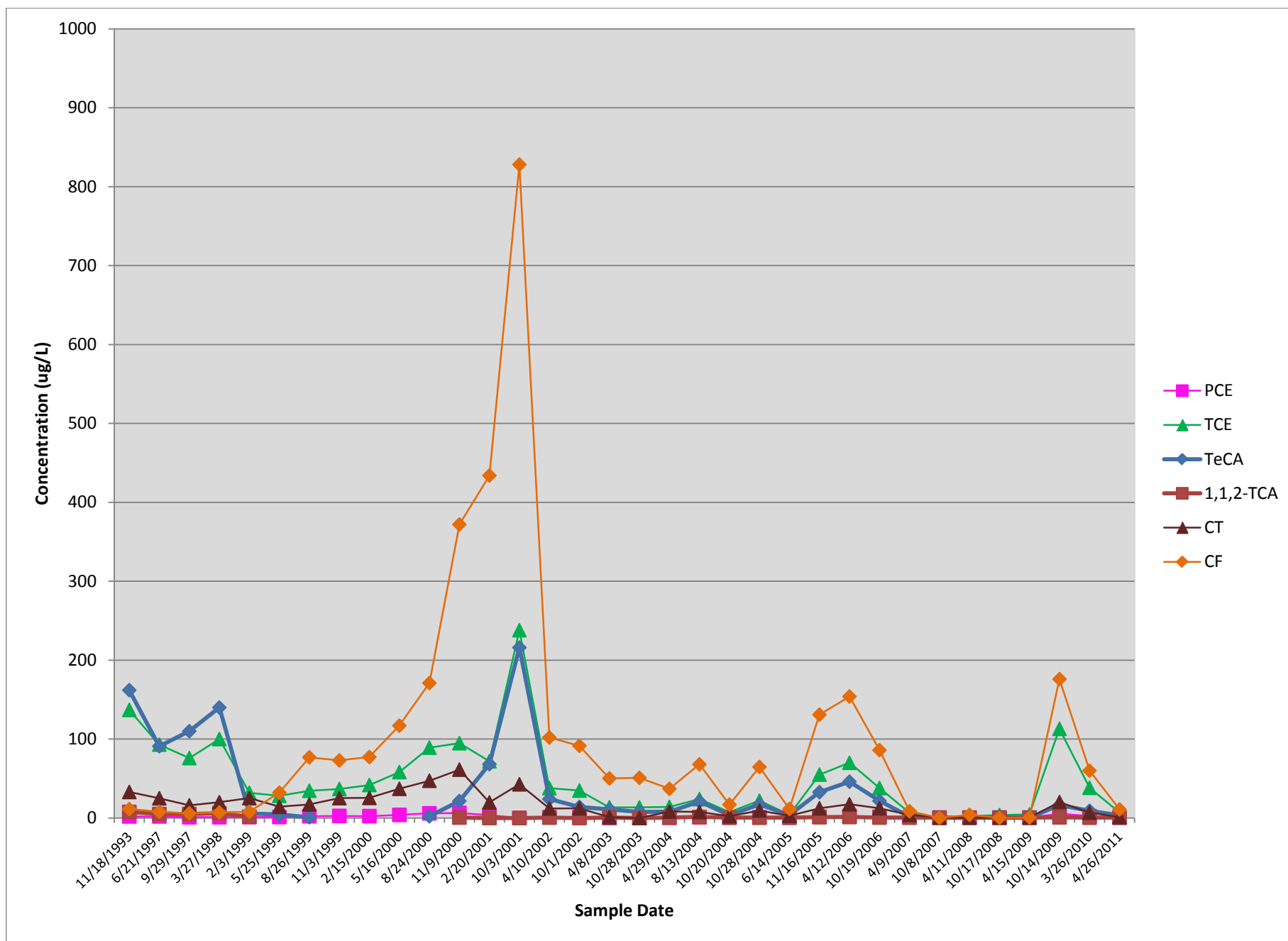


MW-15

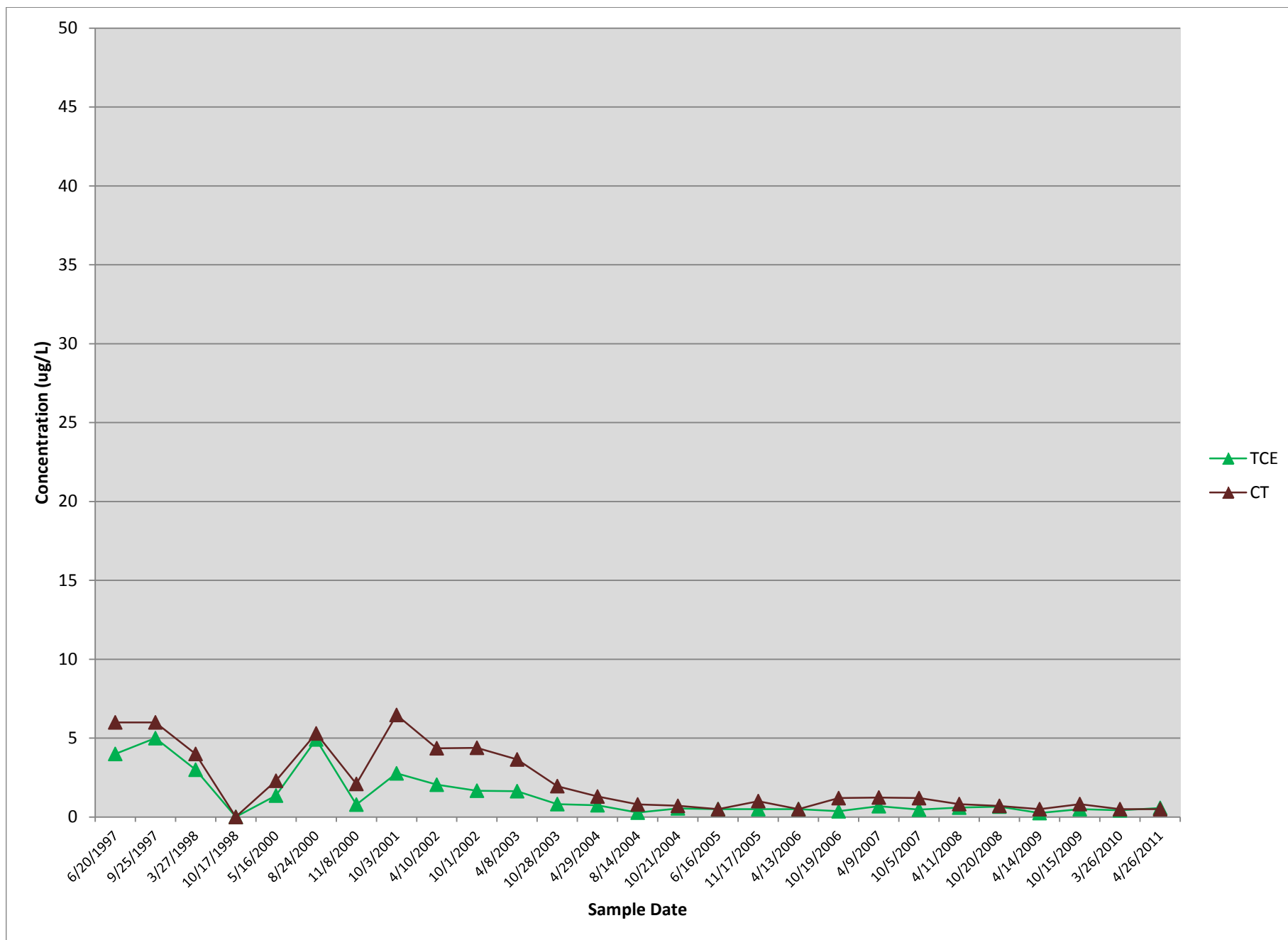


MW-31

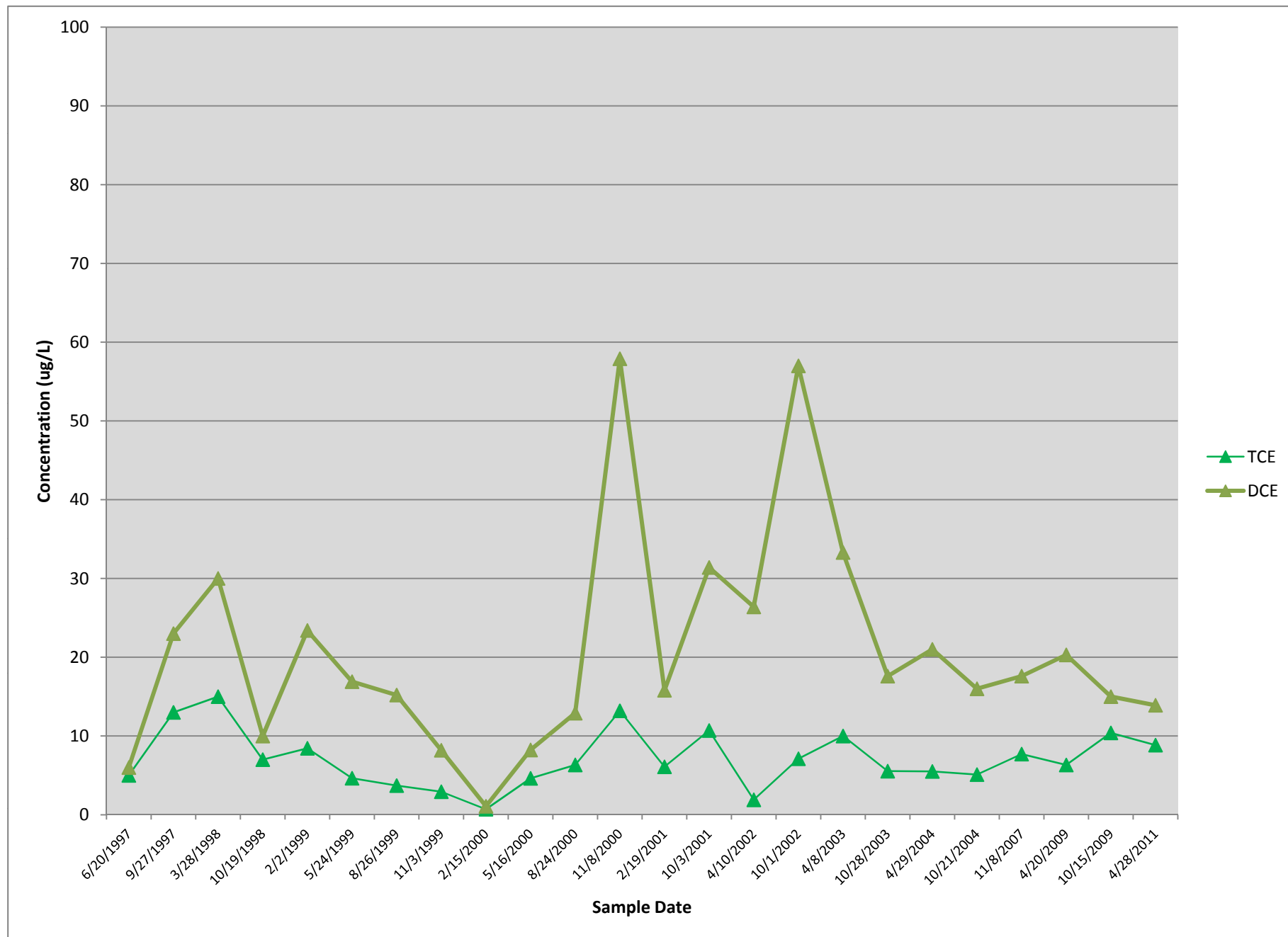




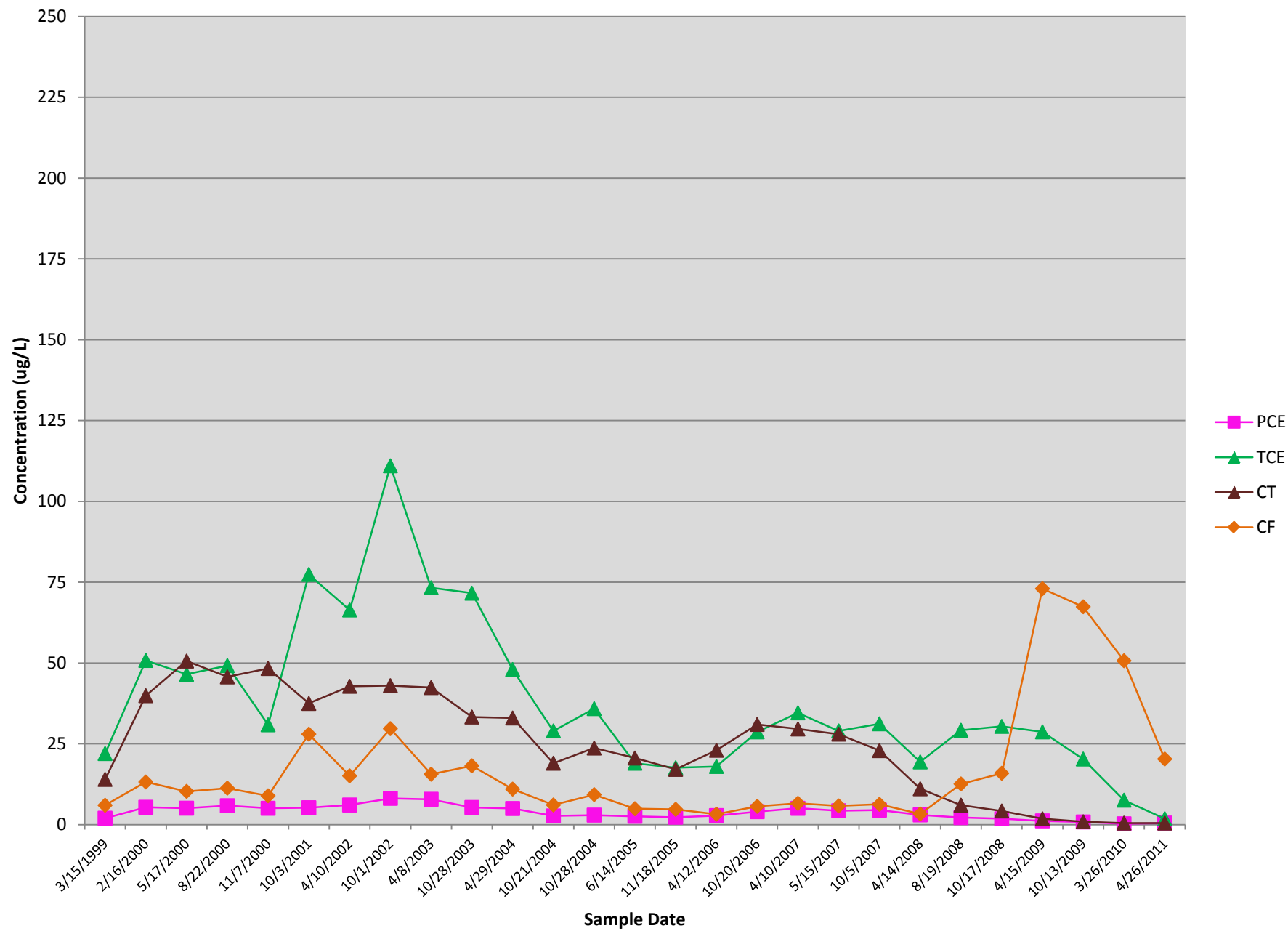
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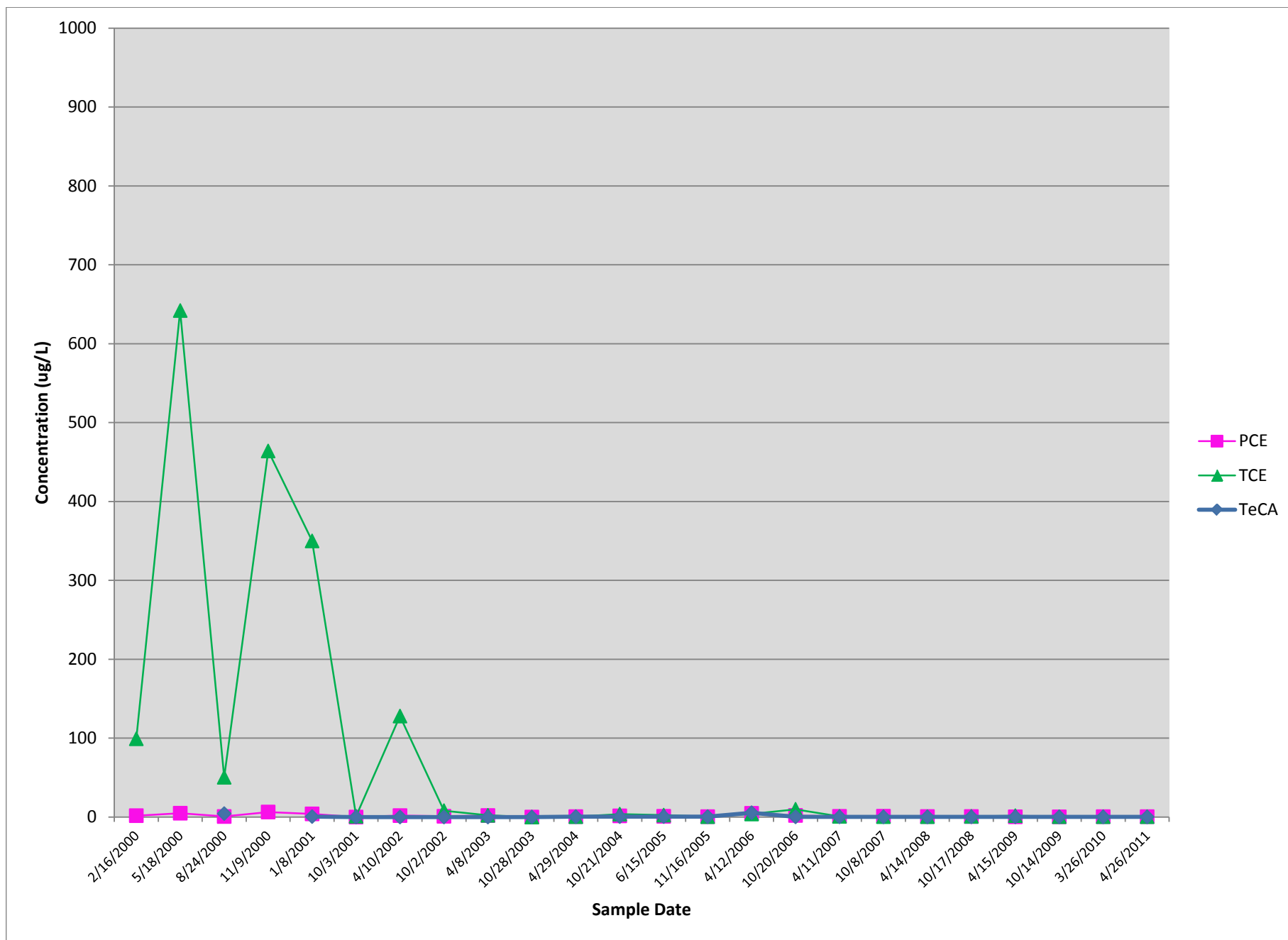
MW-51



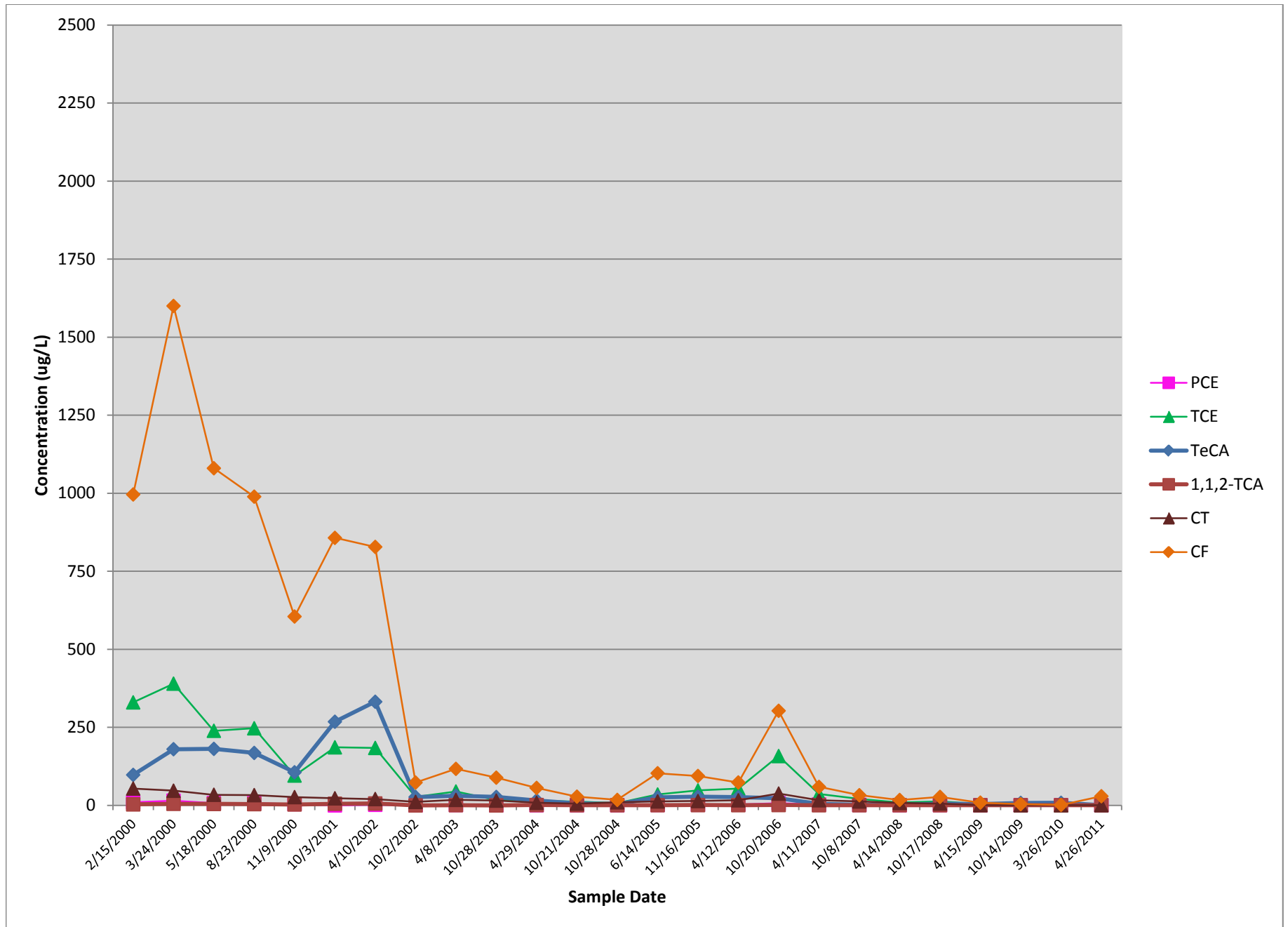
MW-57



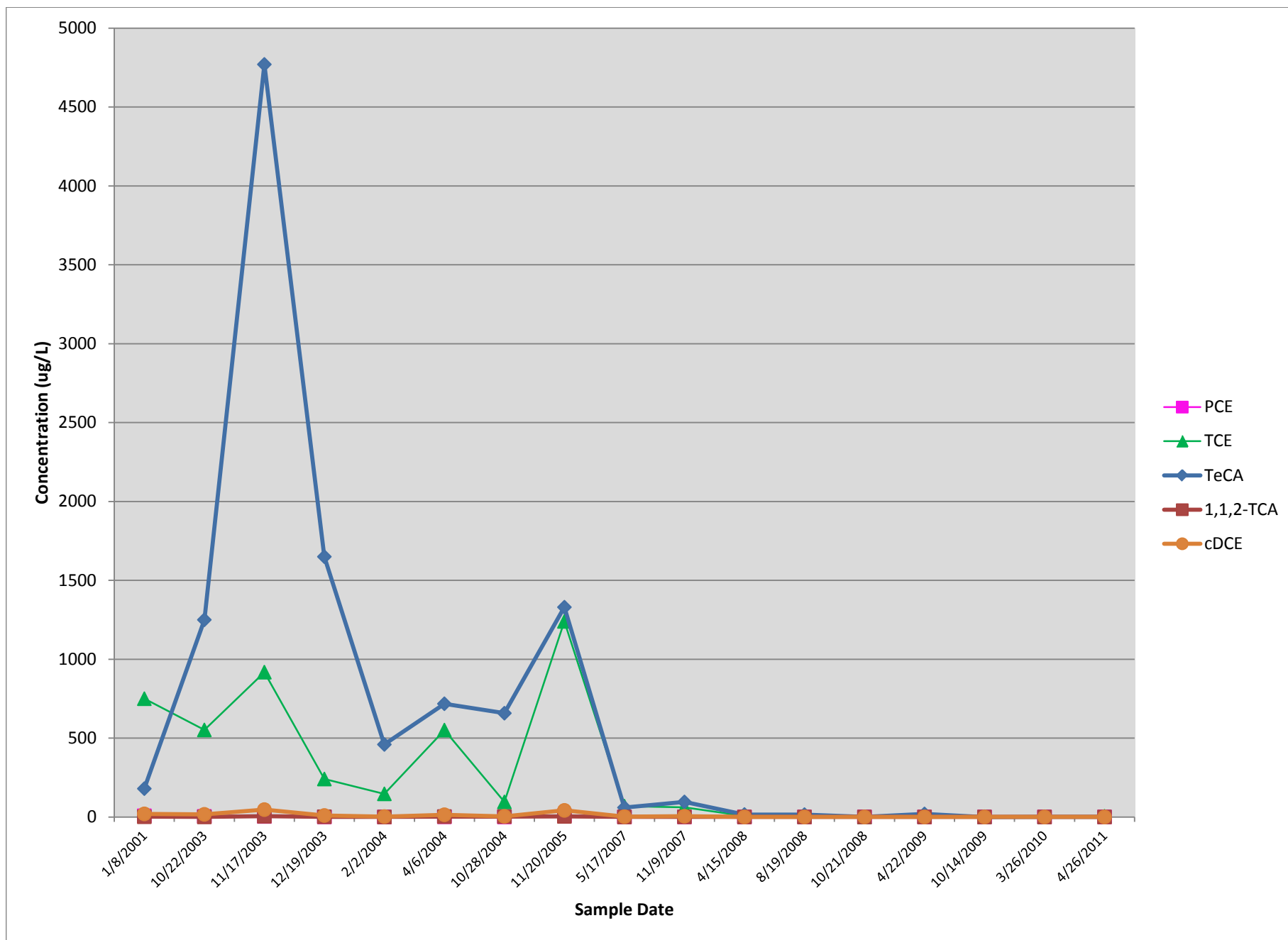
MW-69



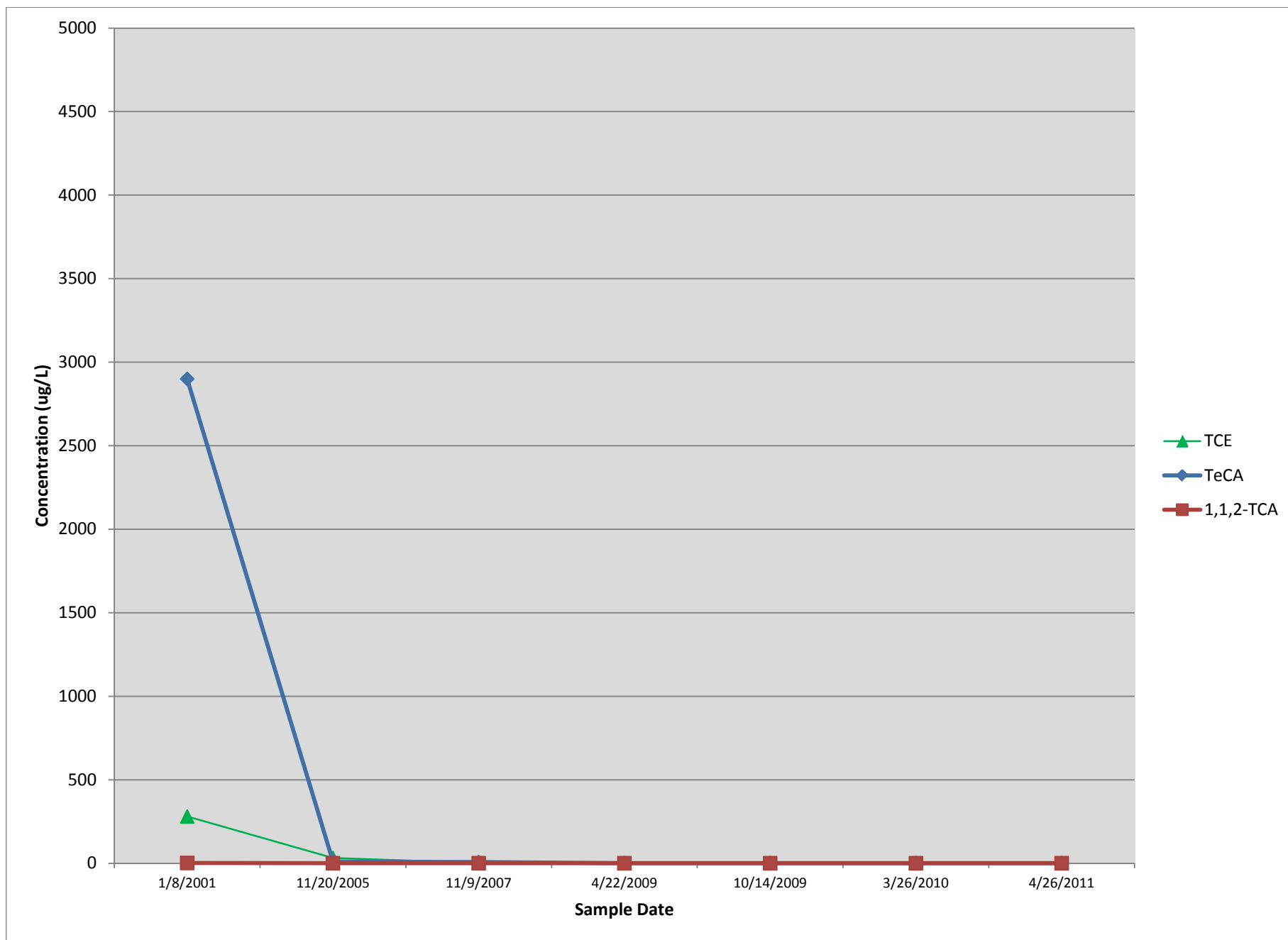
MW-71



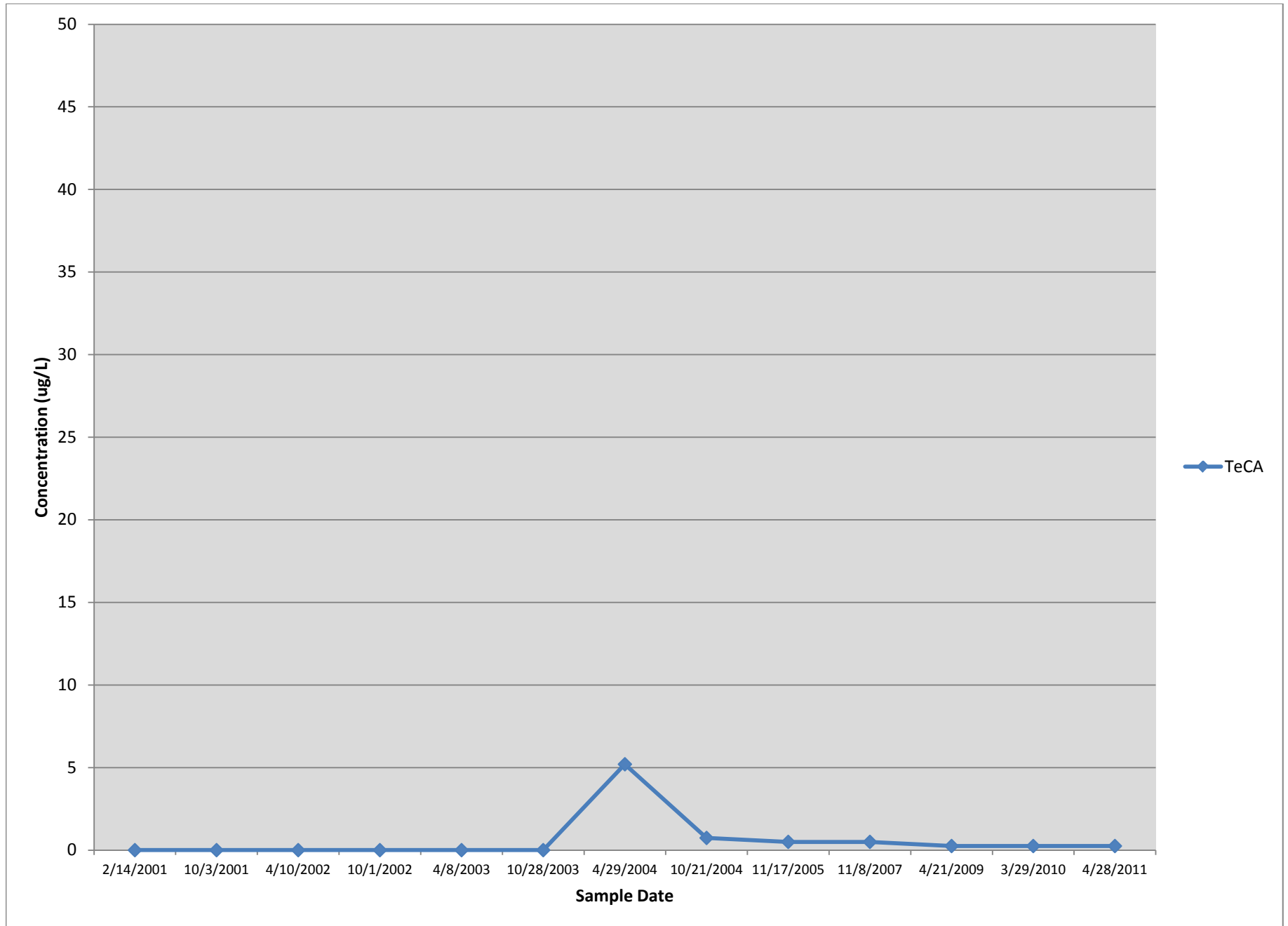
MW-74



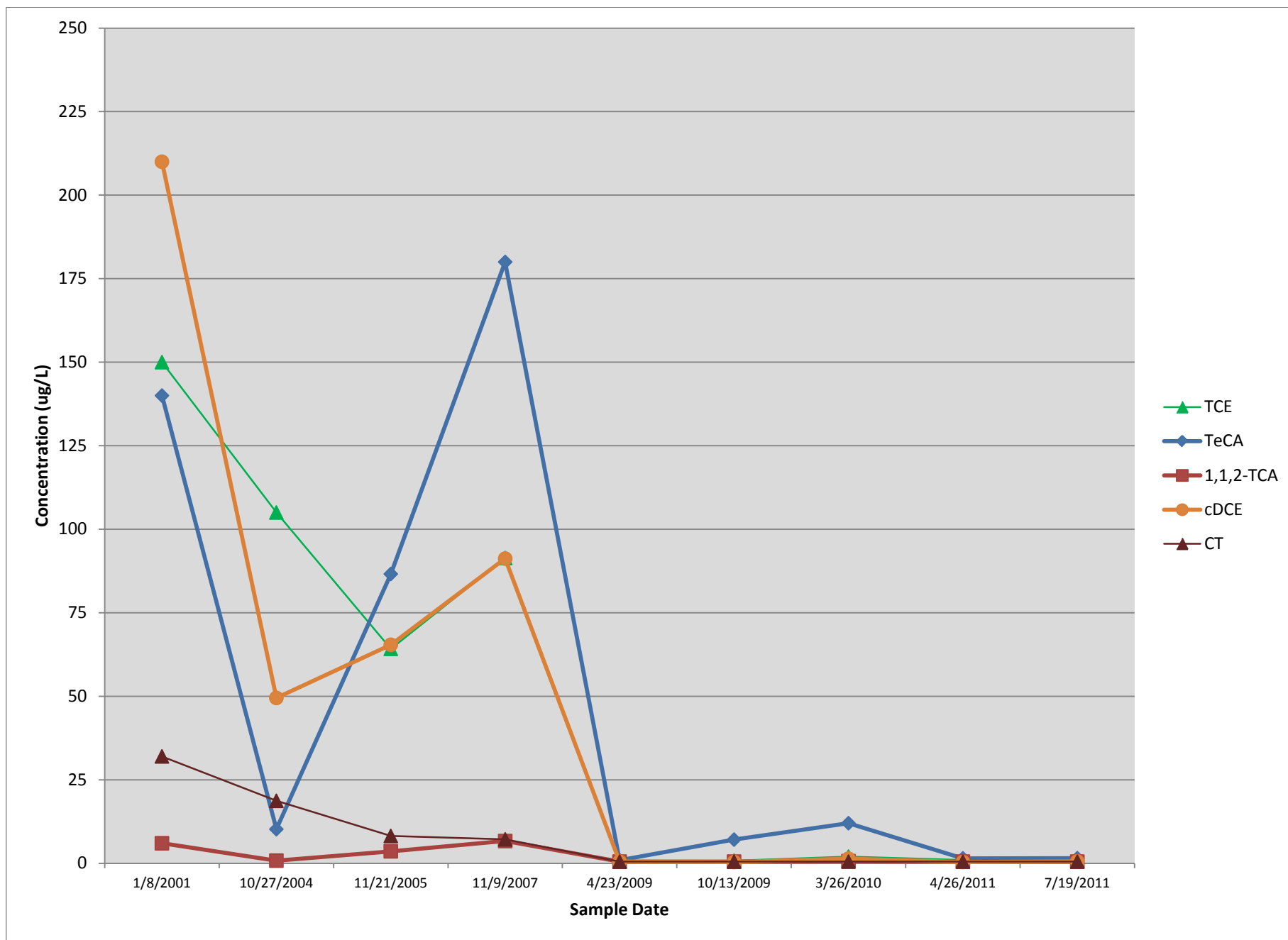
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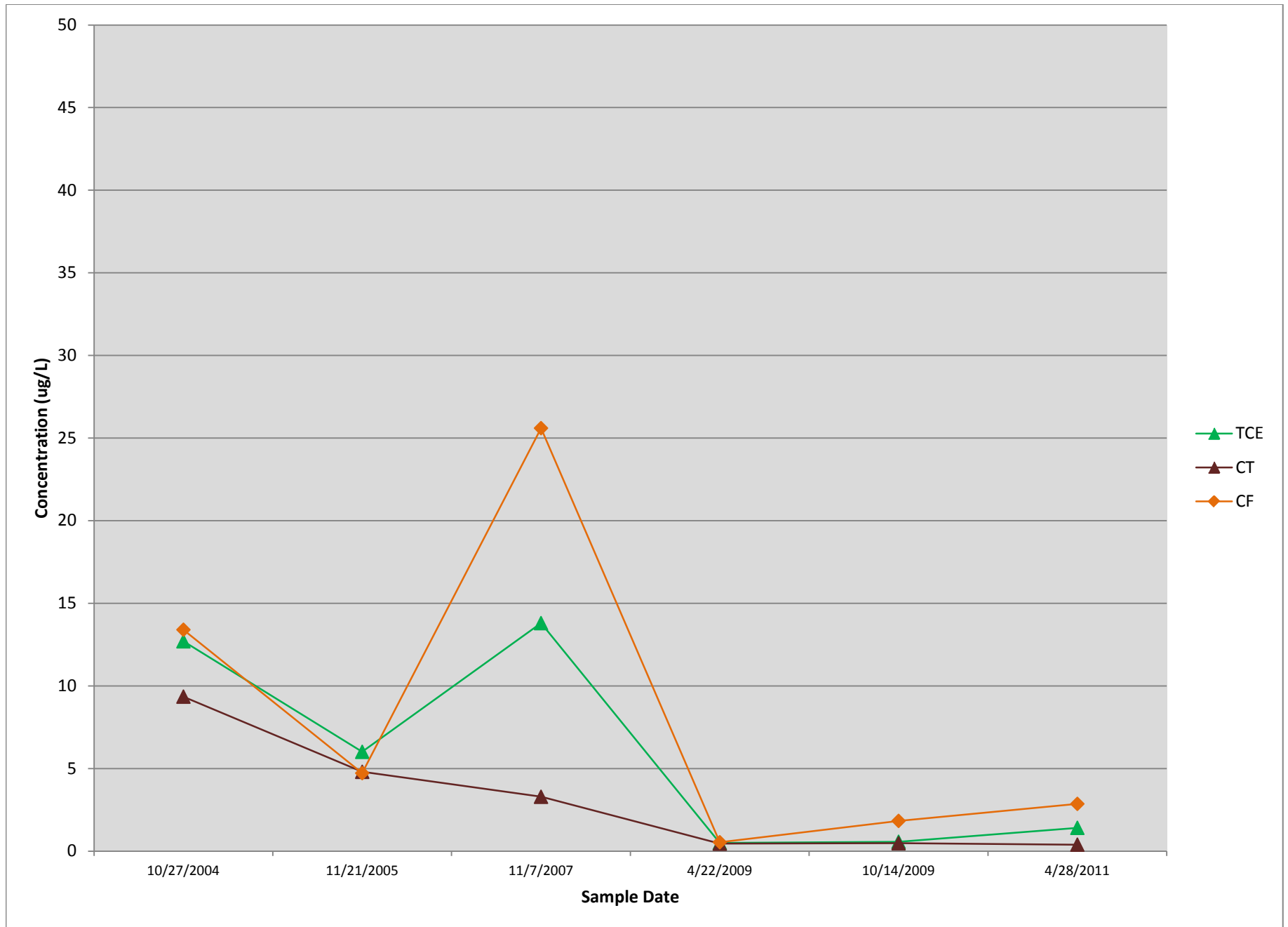
MW-78



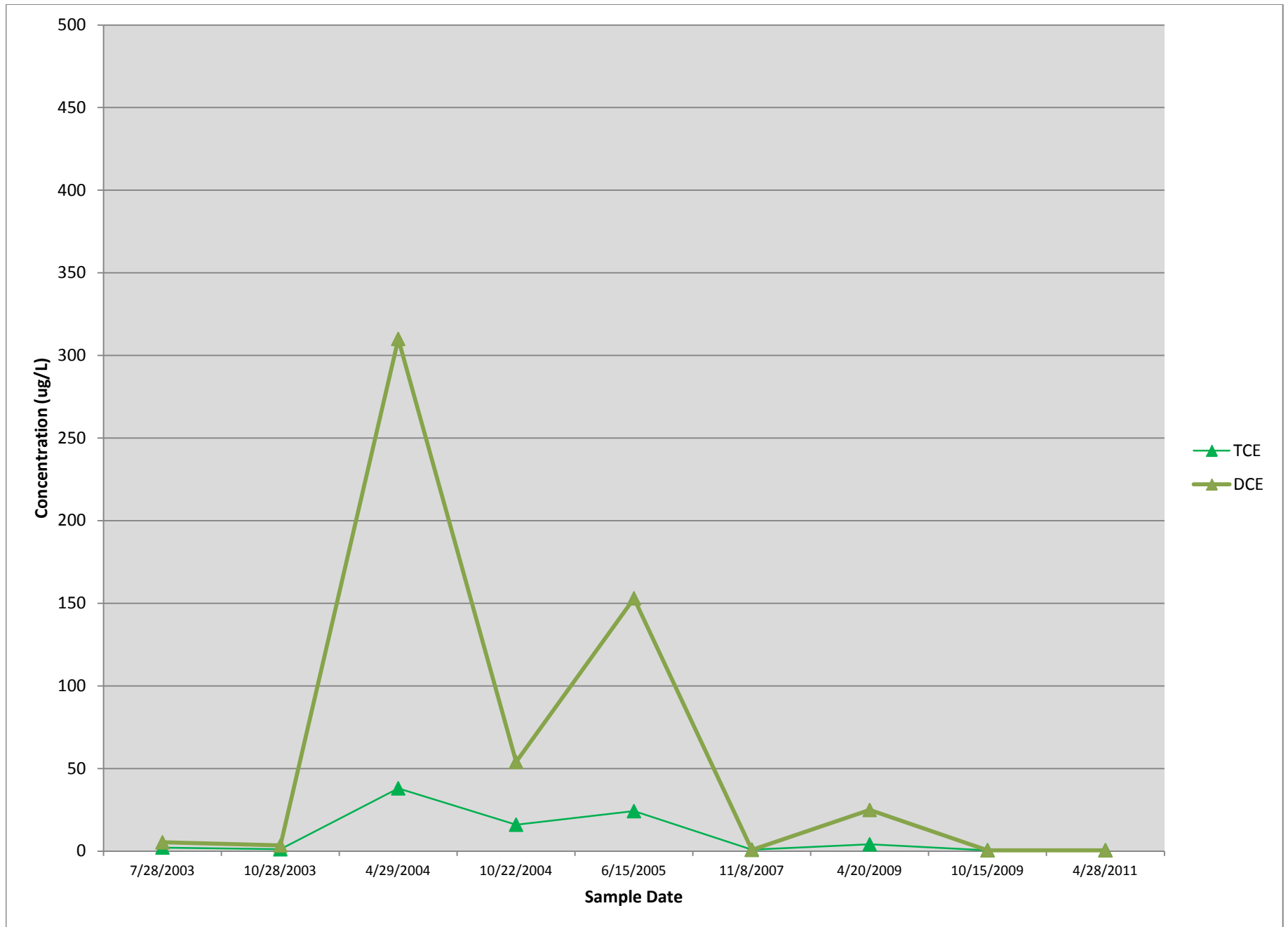
MW-87



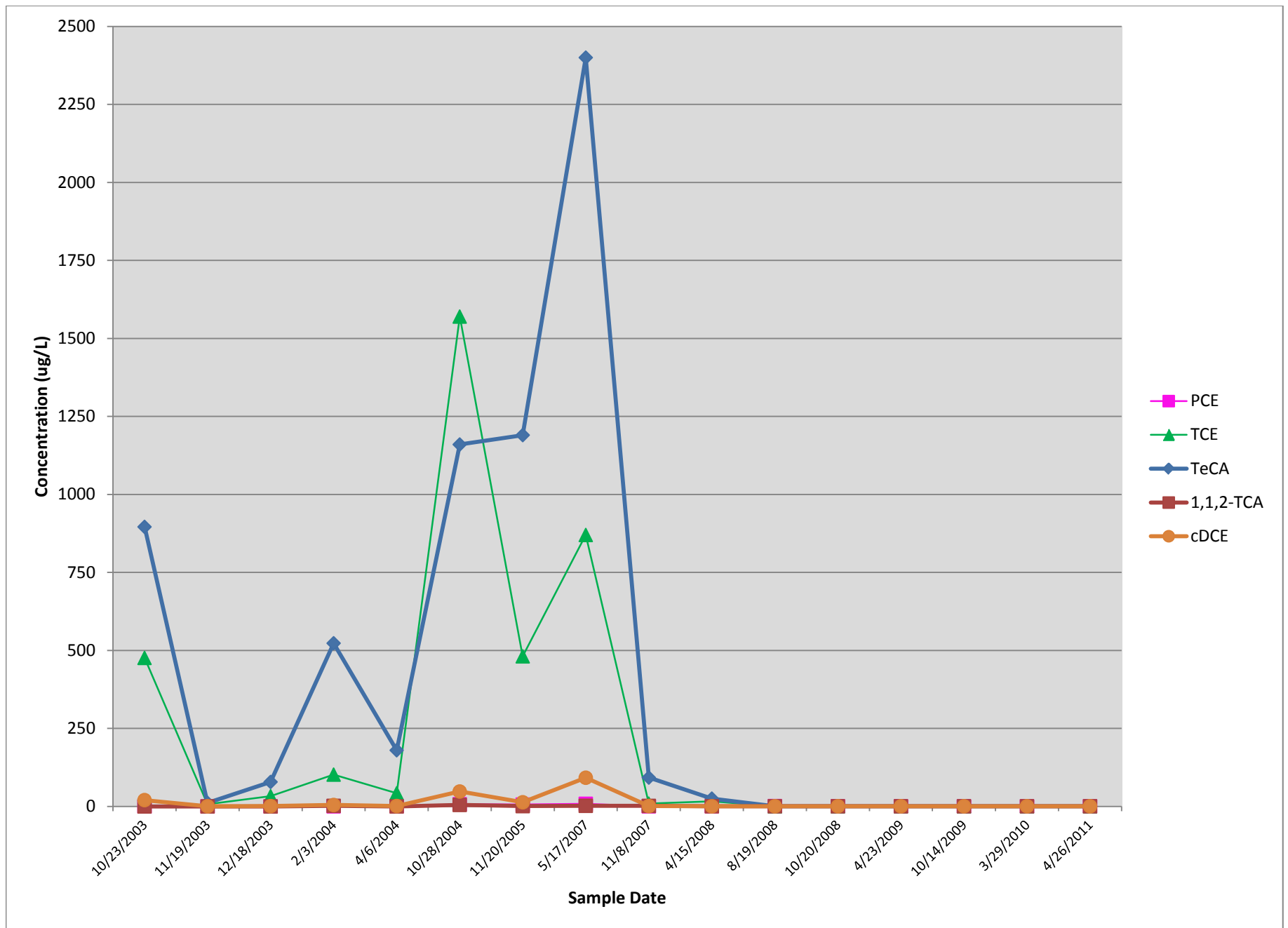
MW-91



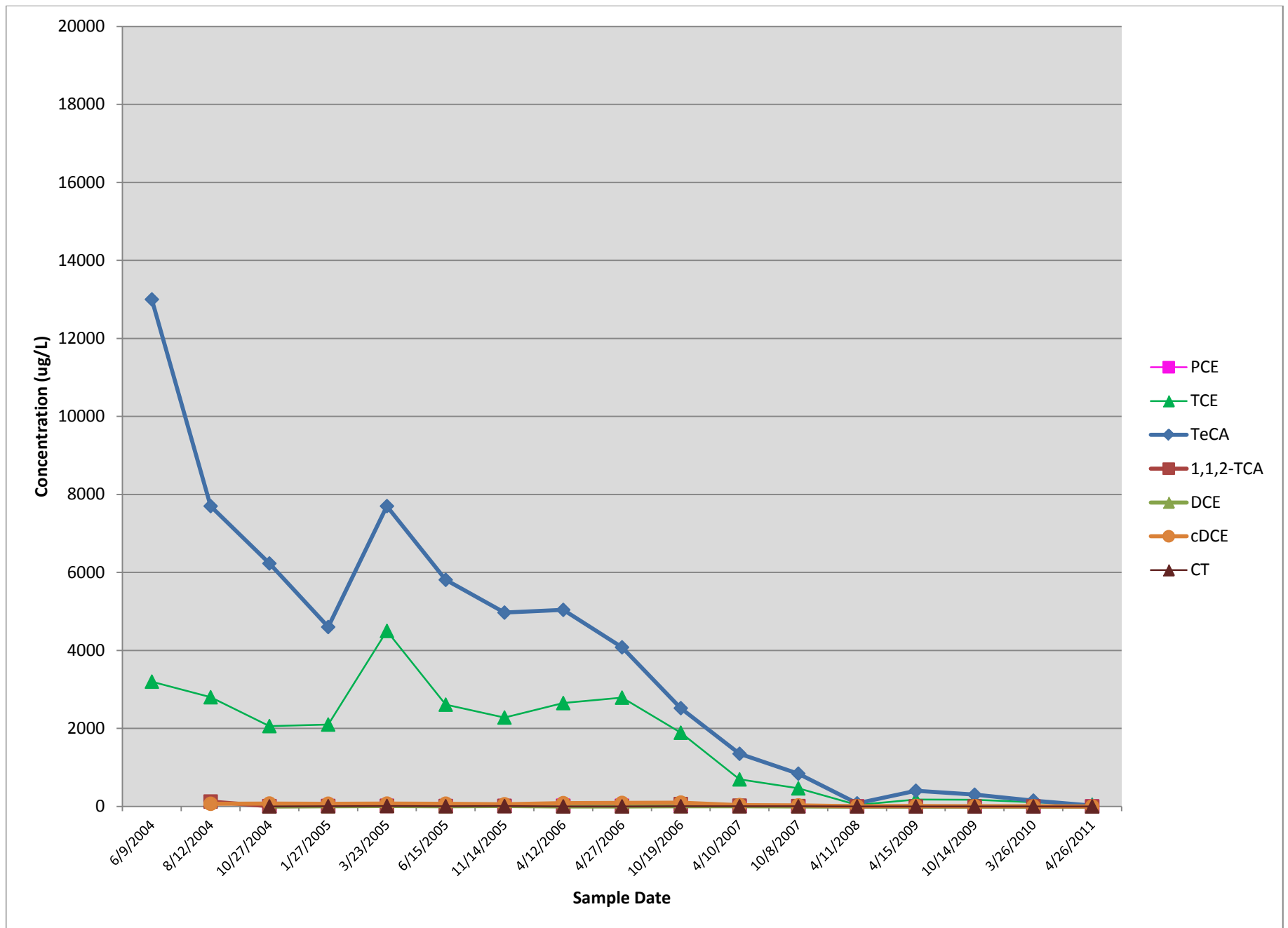
MW-128



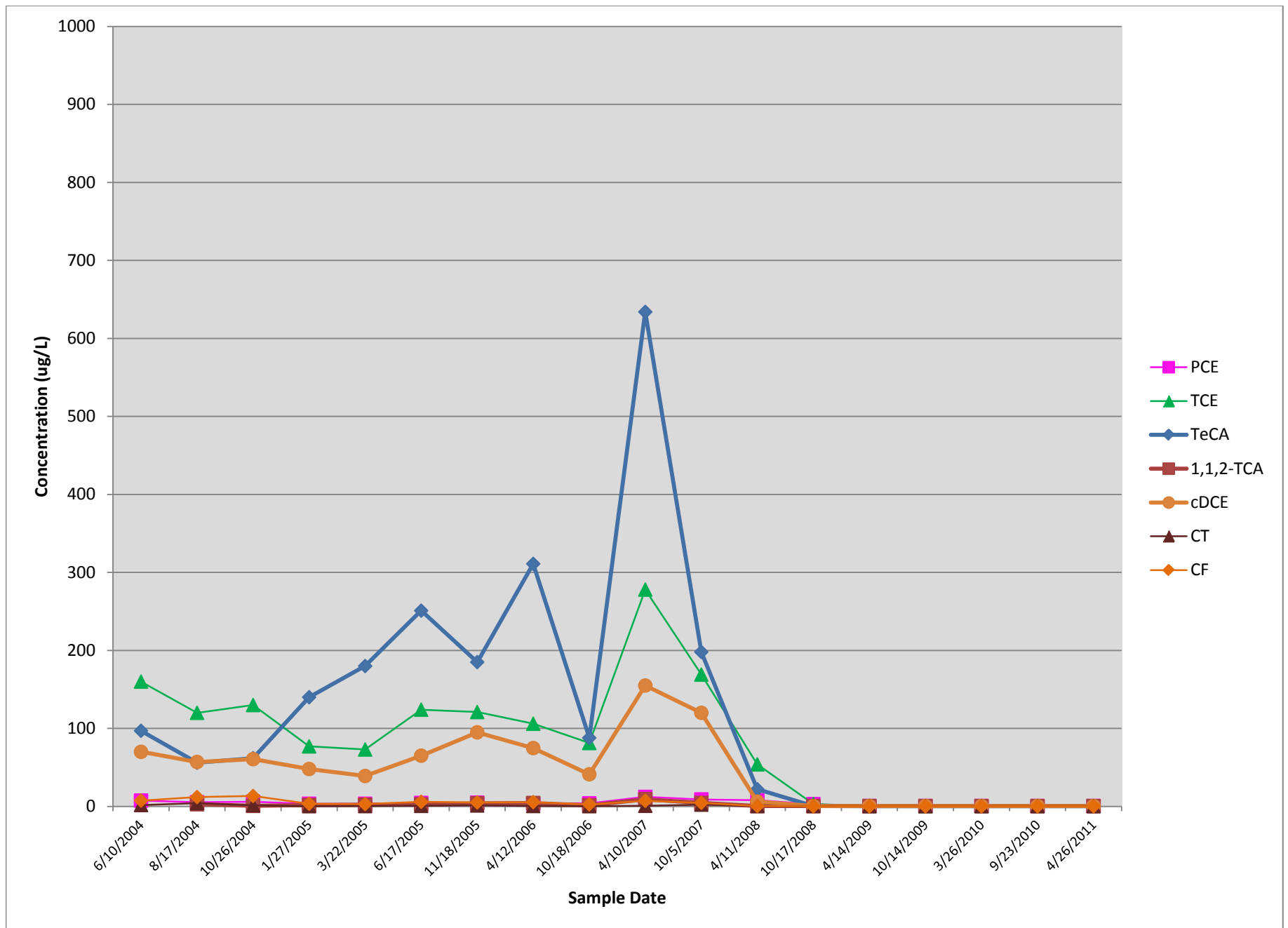
MW-132



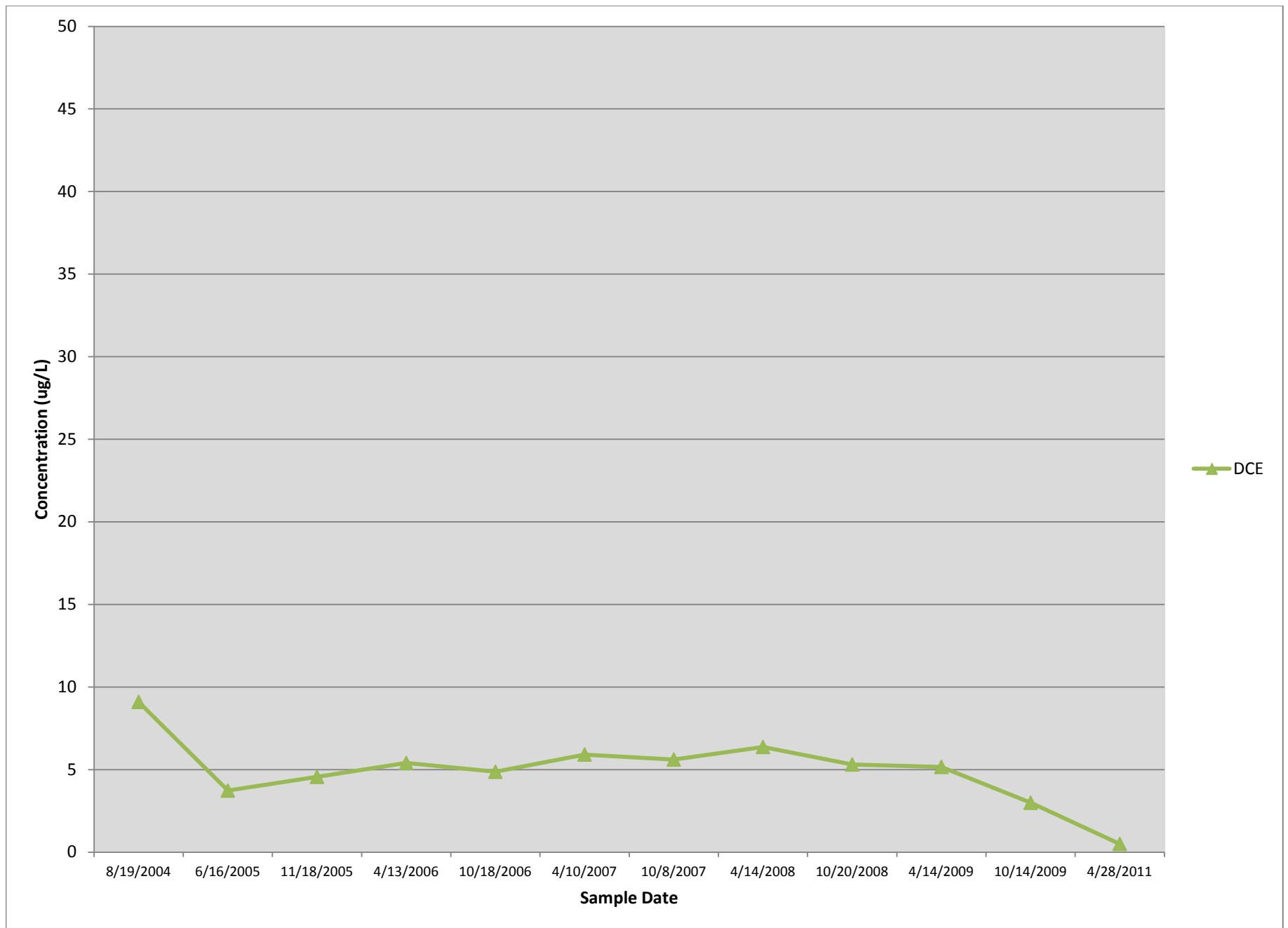
MW-144



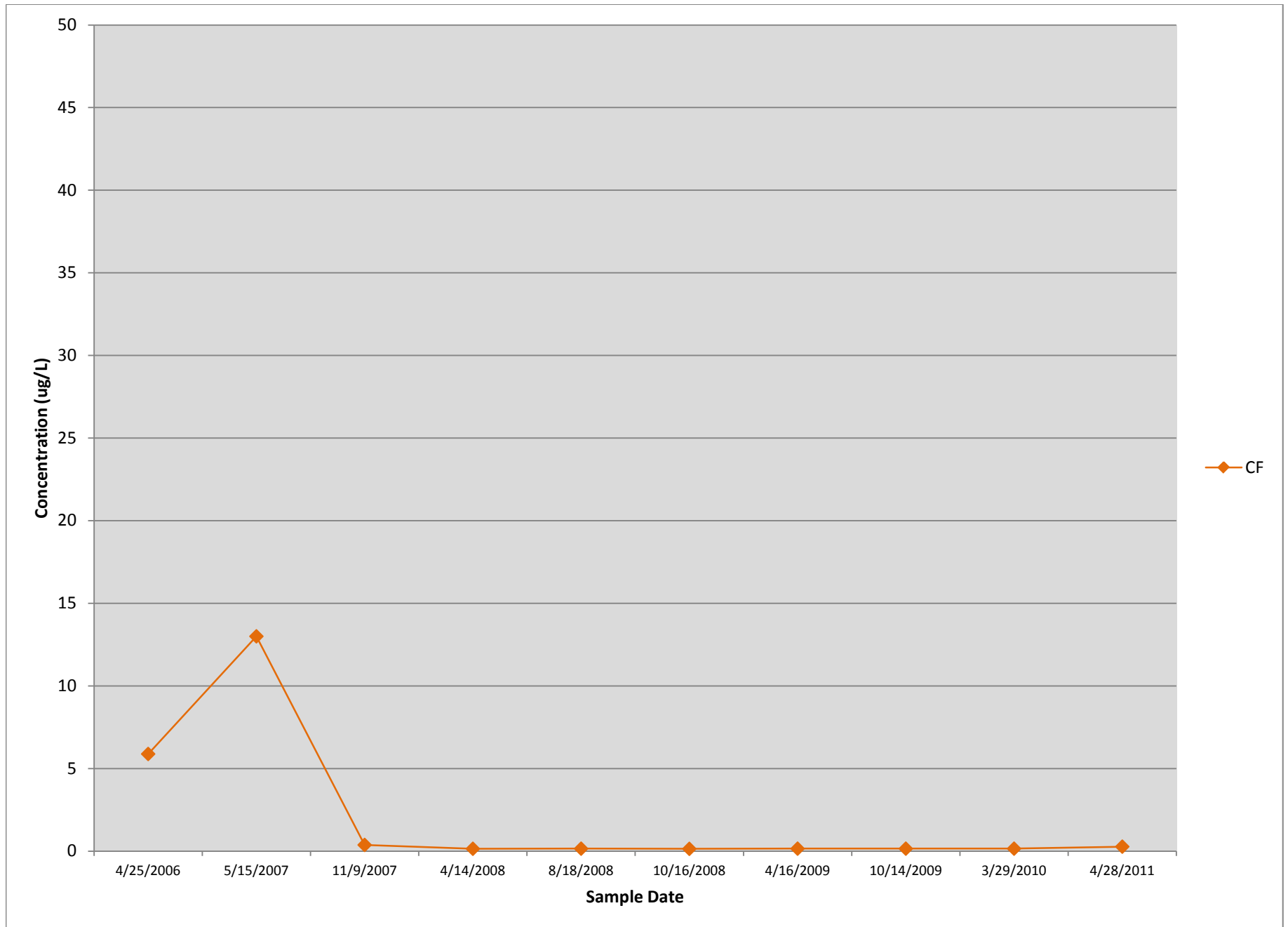
MW-147



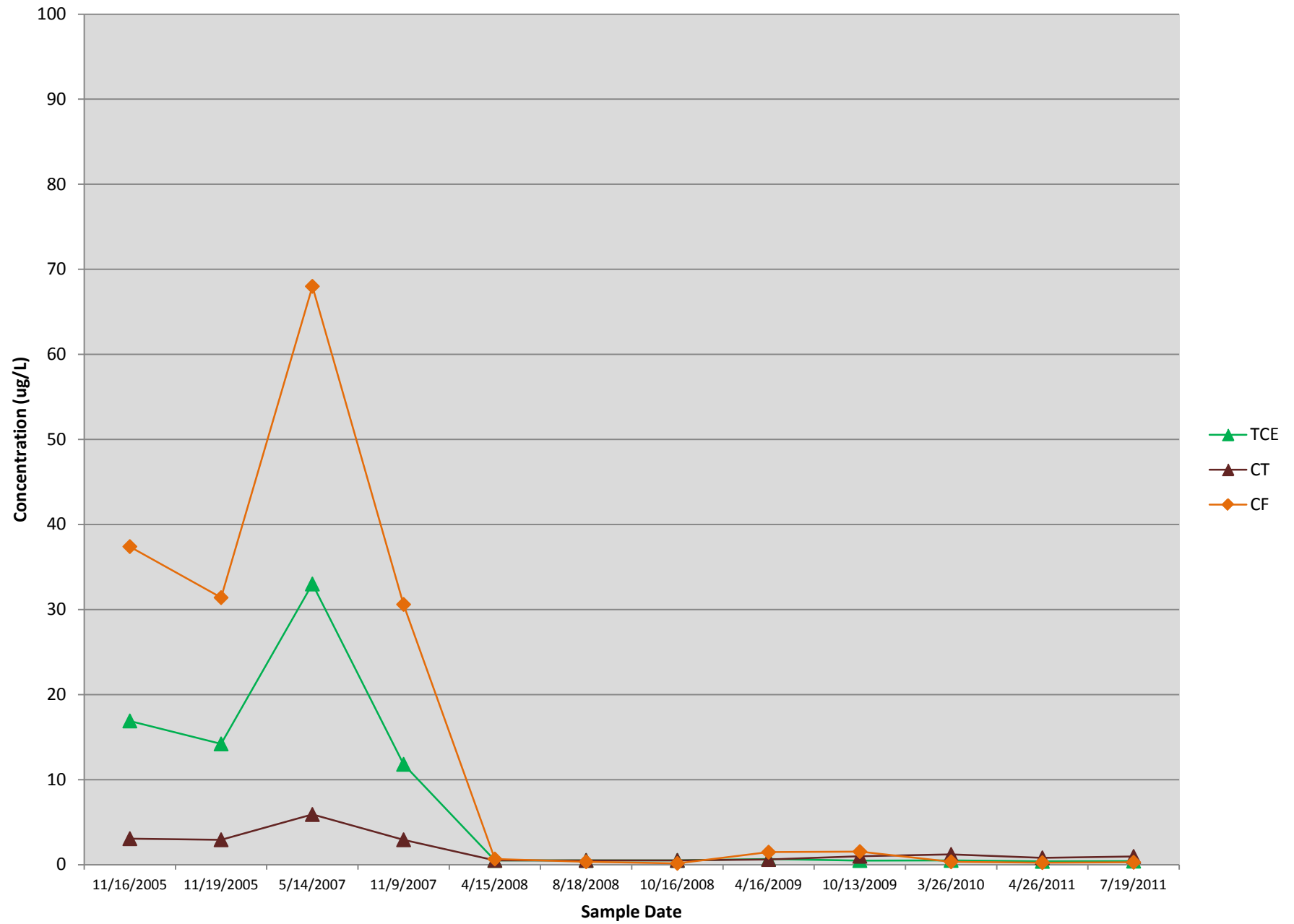
MW-153



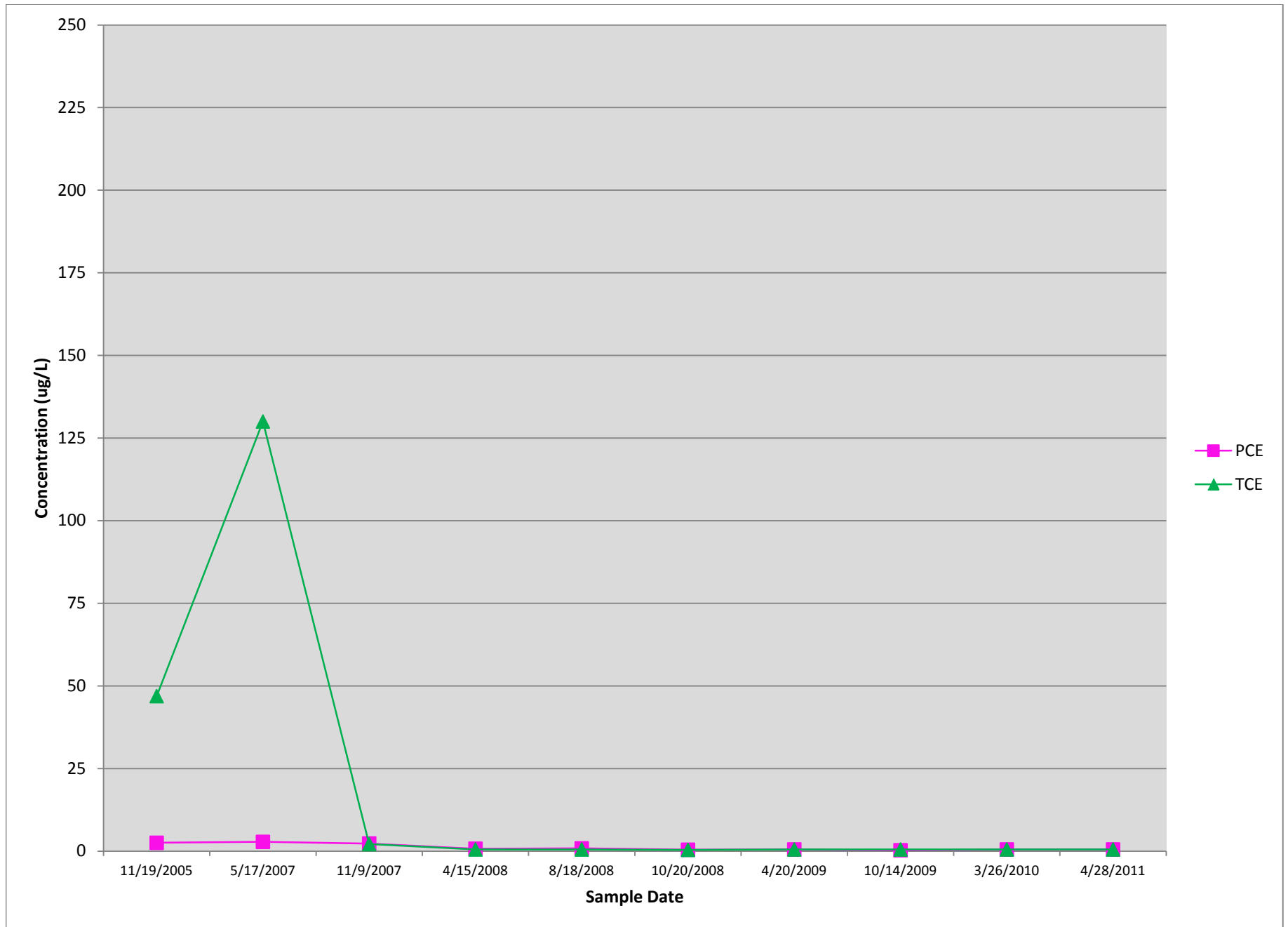
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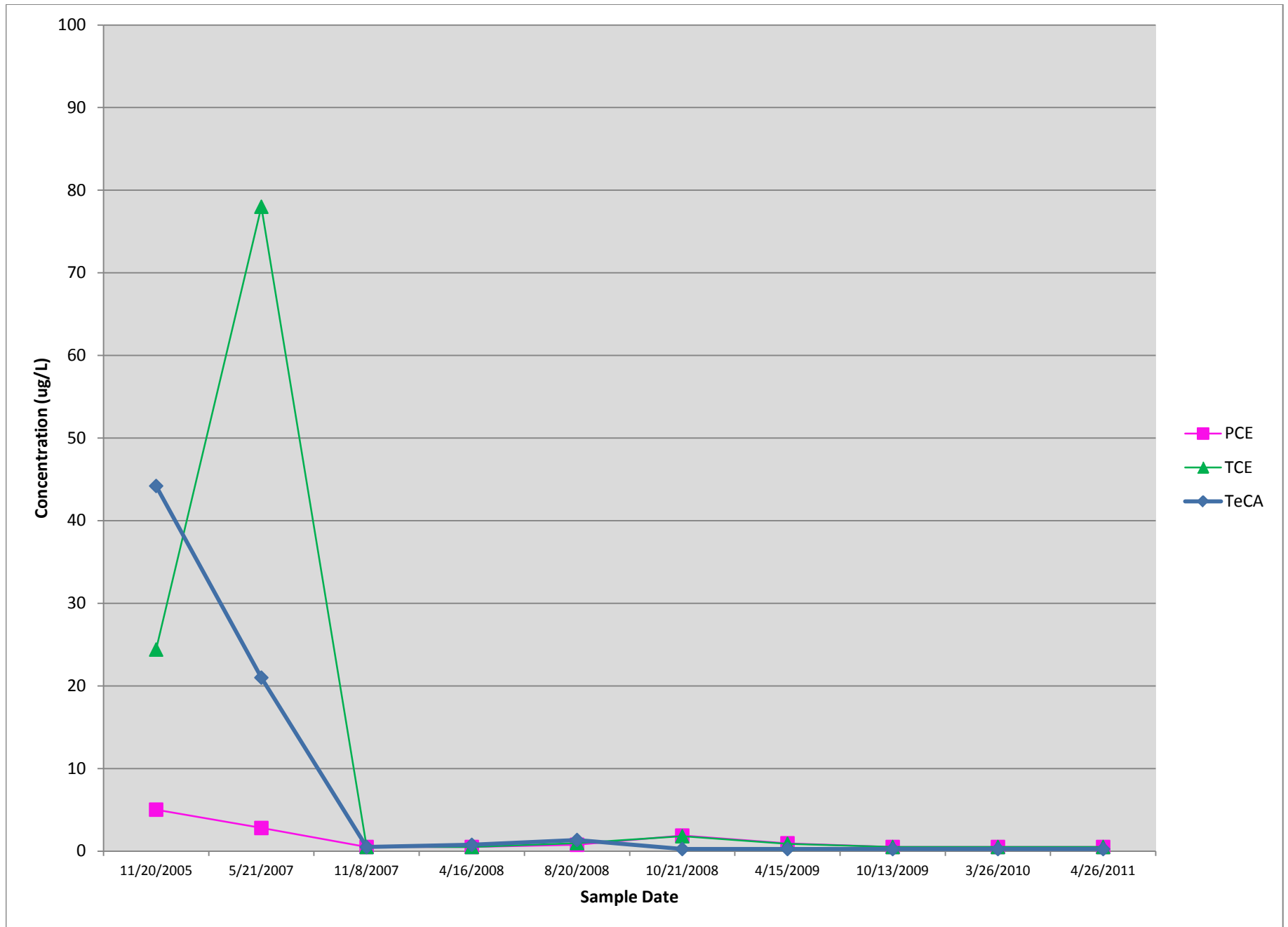
MW-174



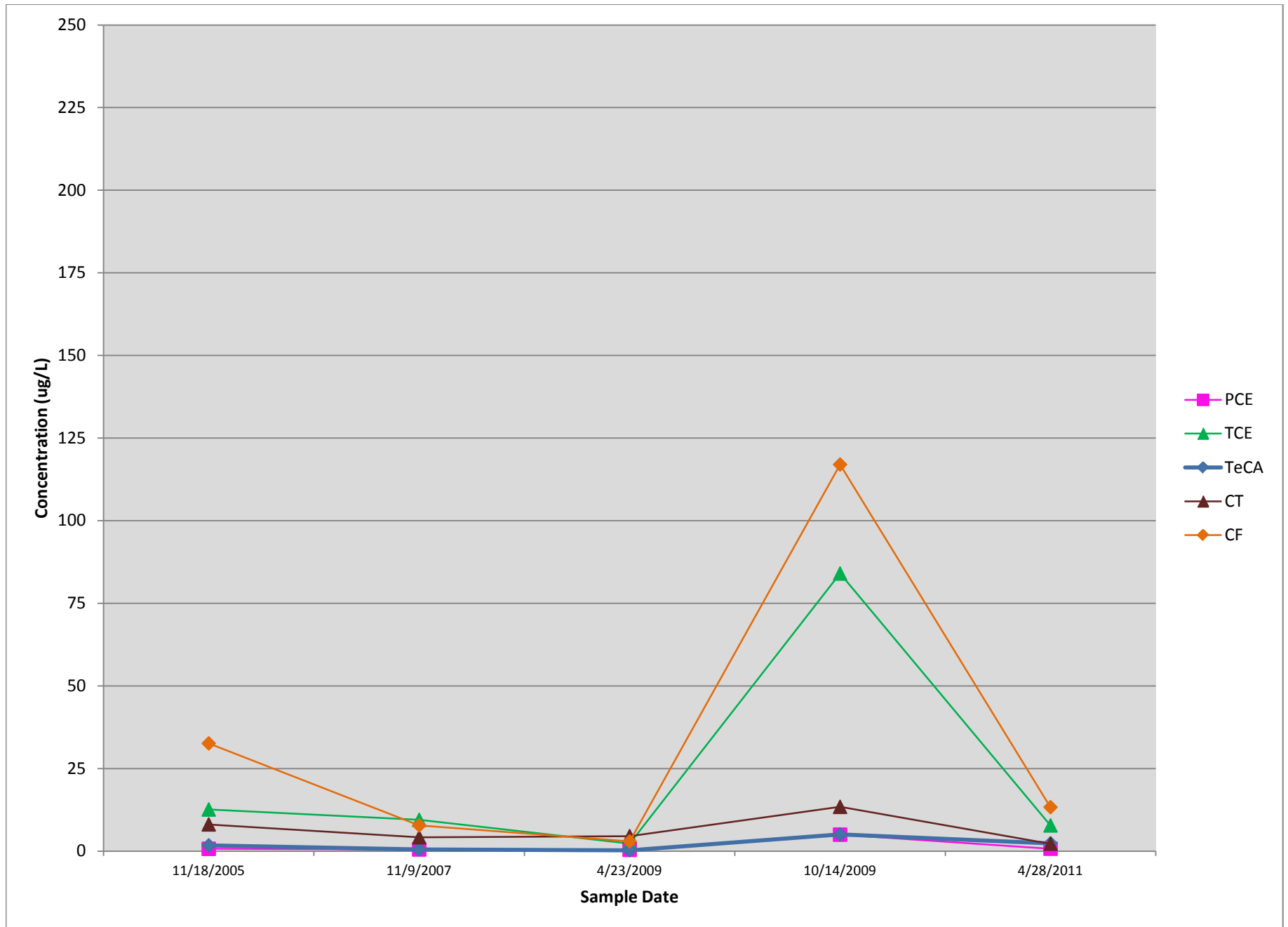
MW-178



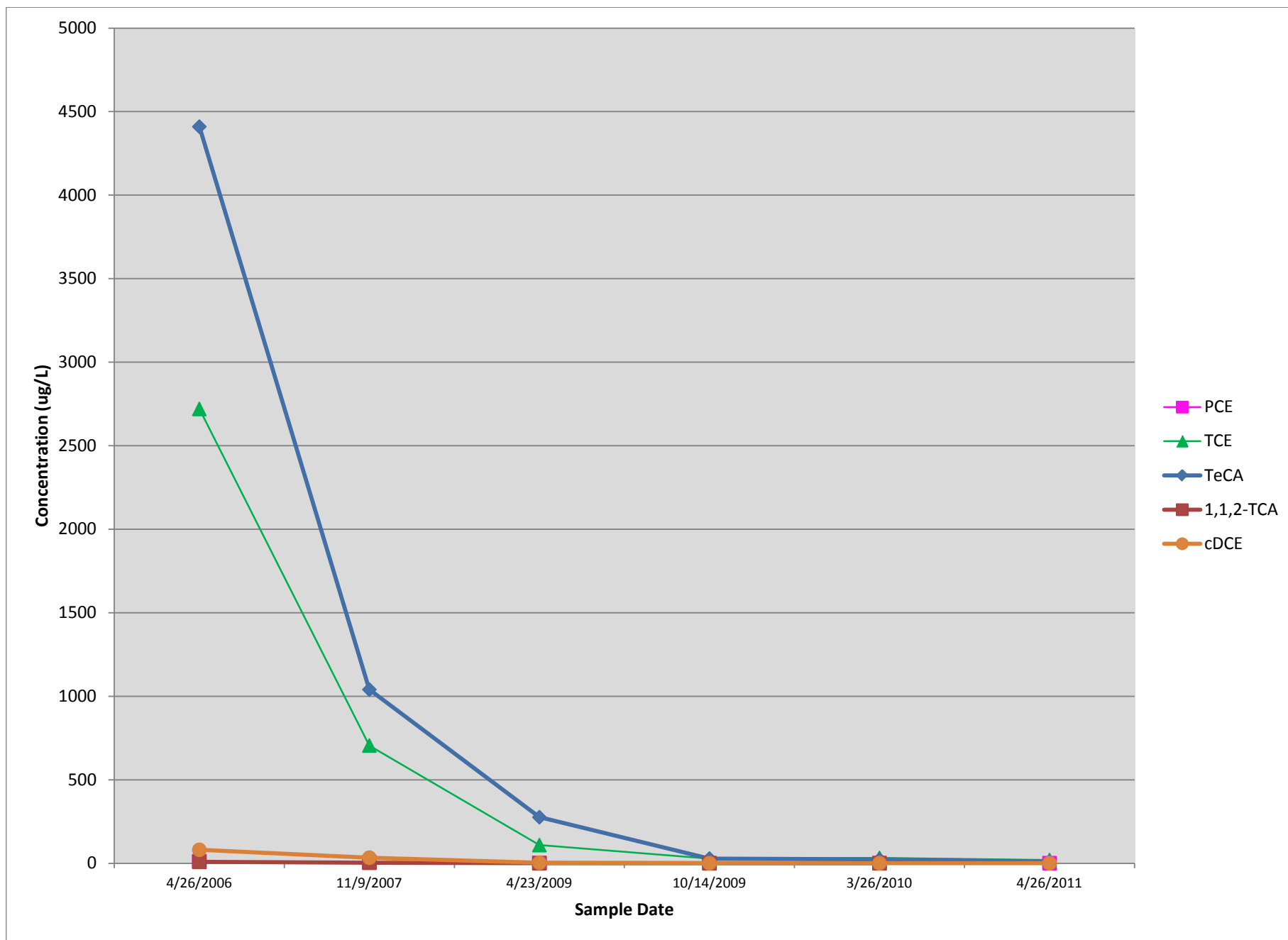
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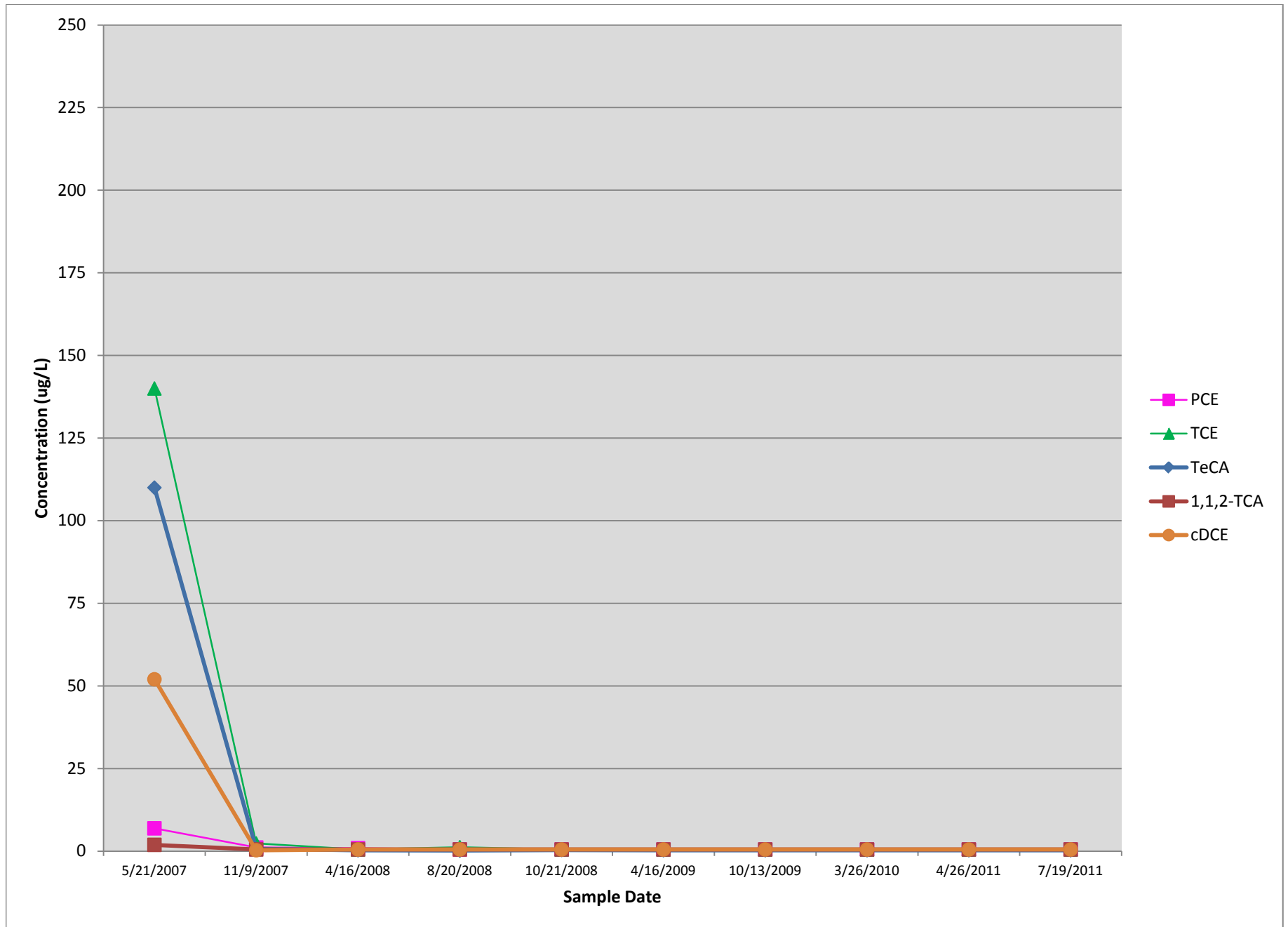
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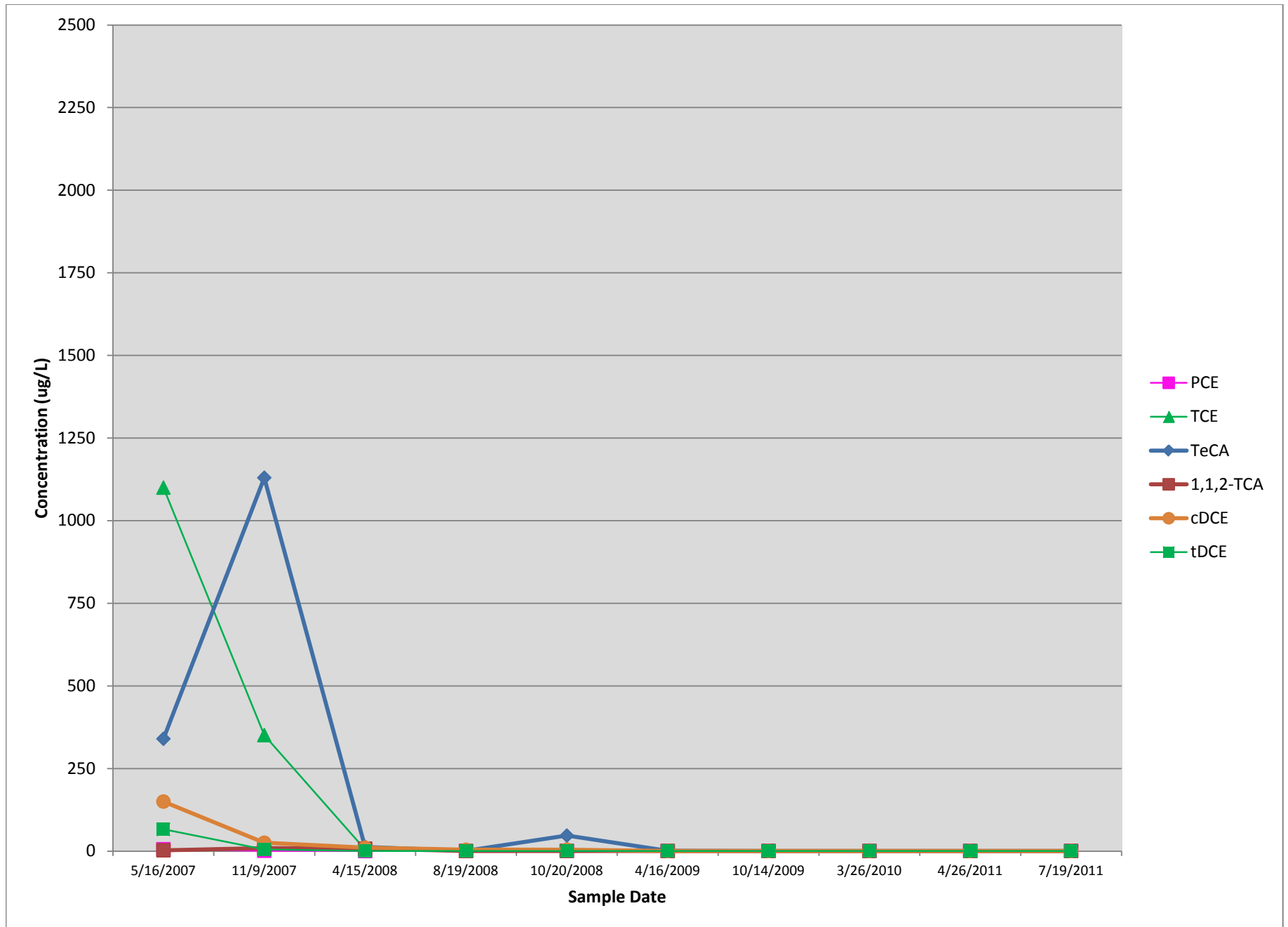
MW-190



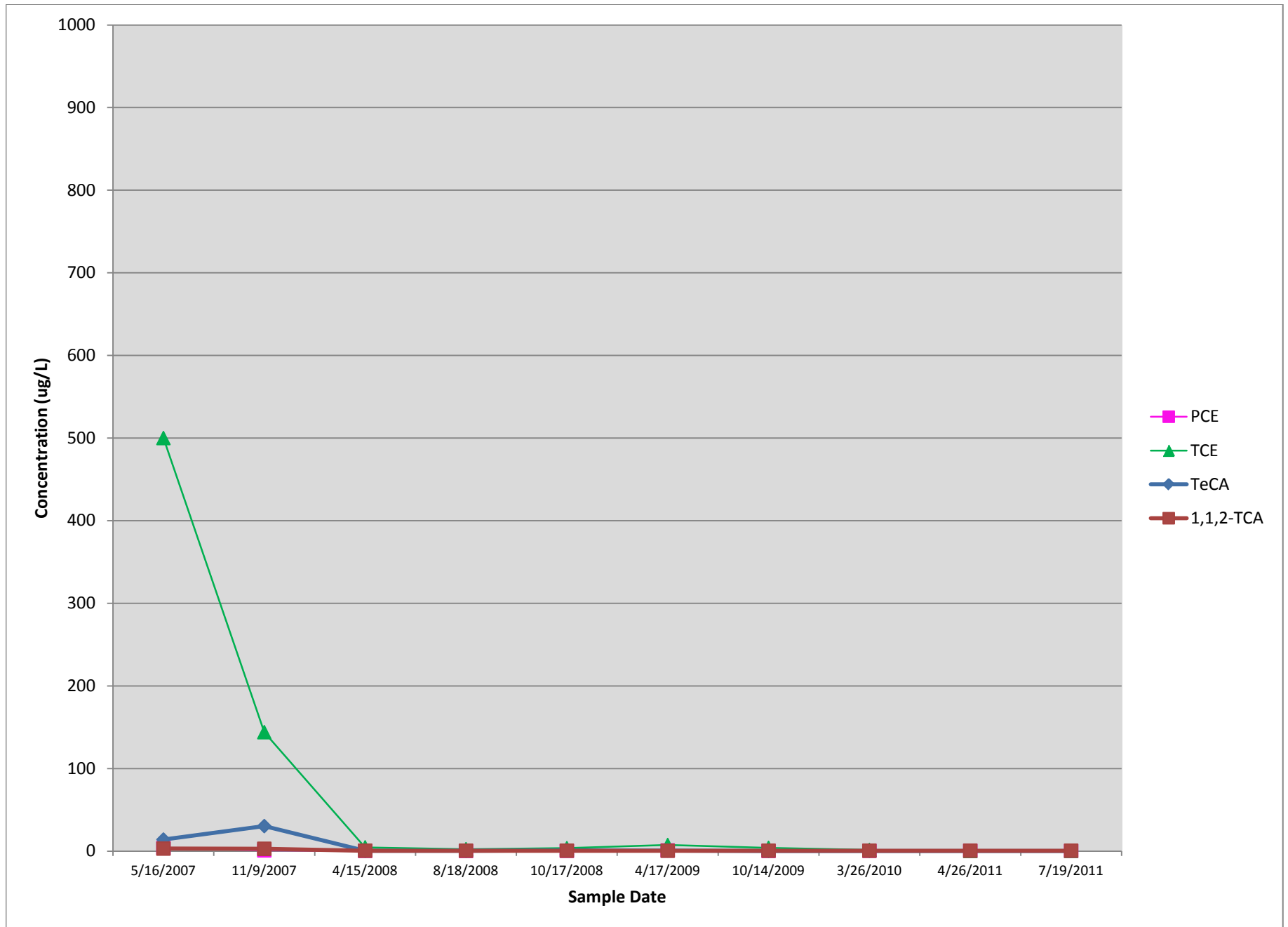
MW-221



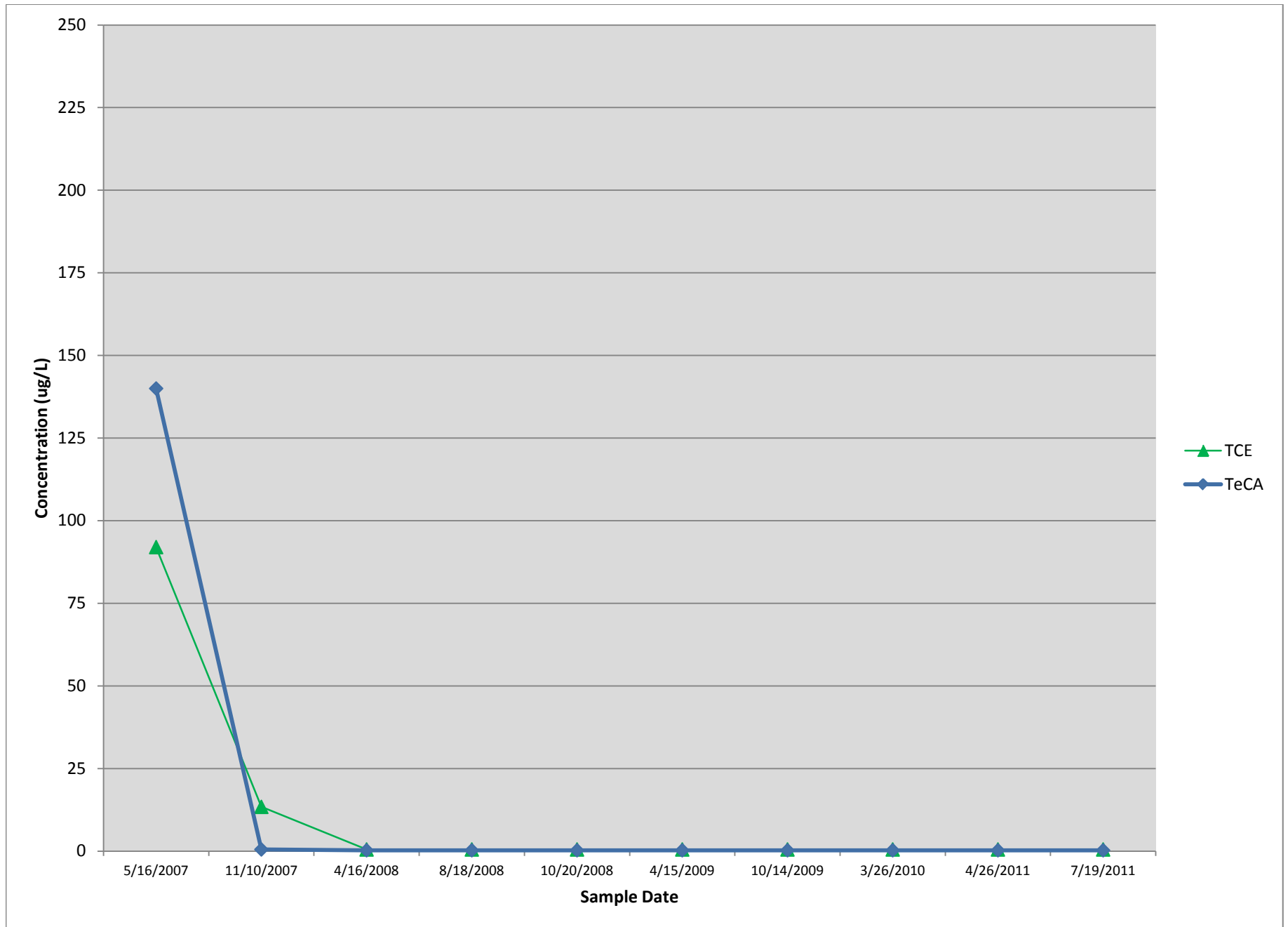
MW-222



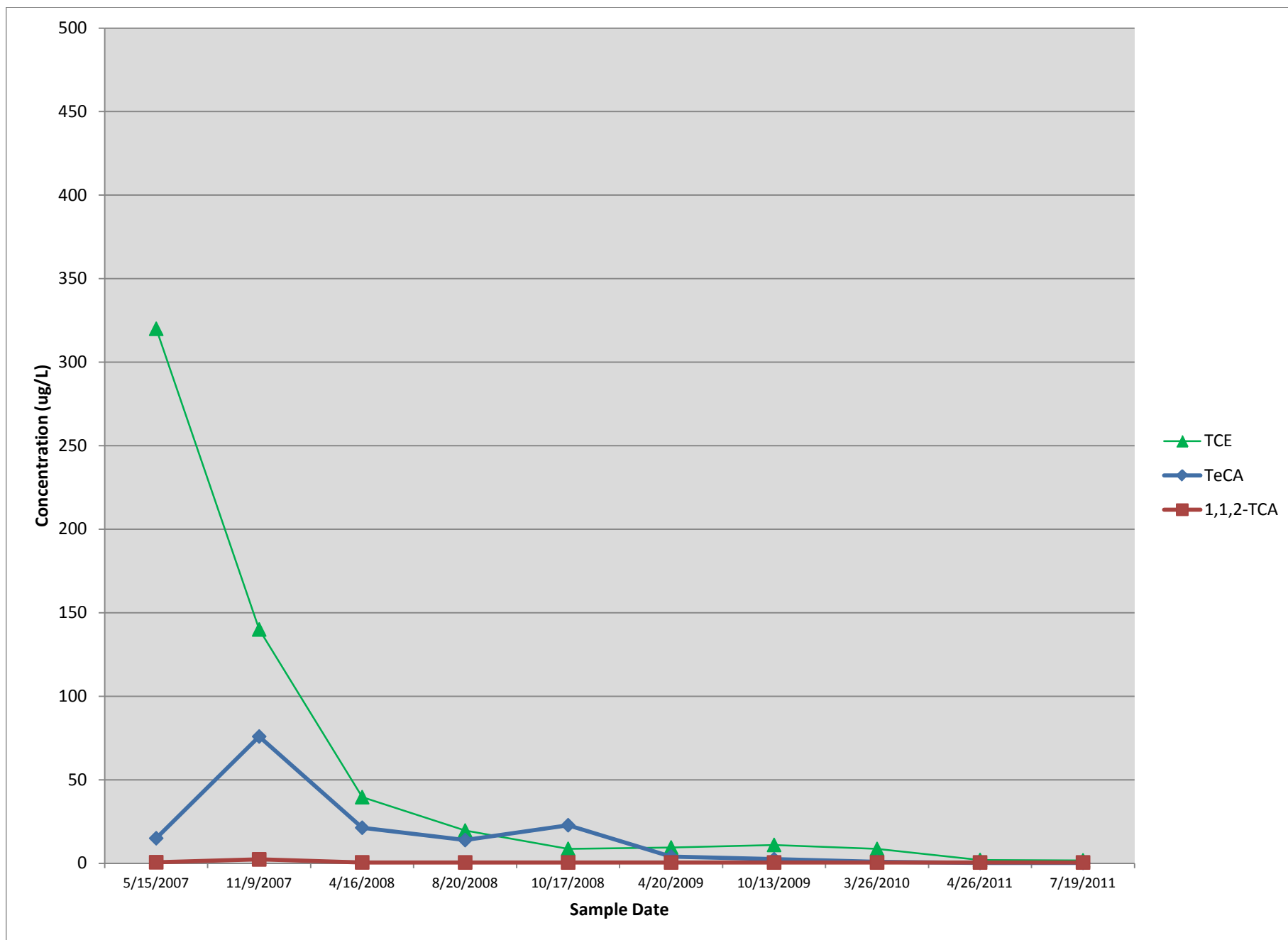
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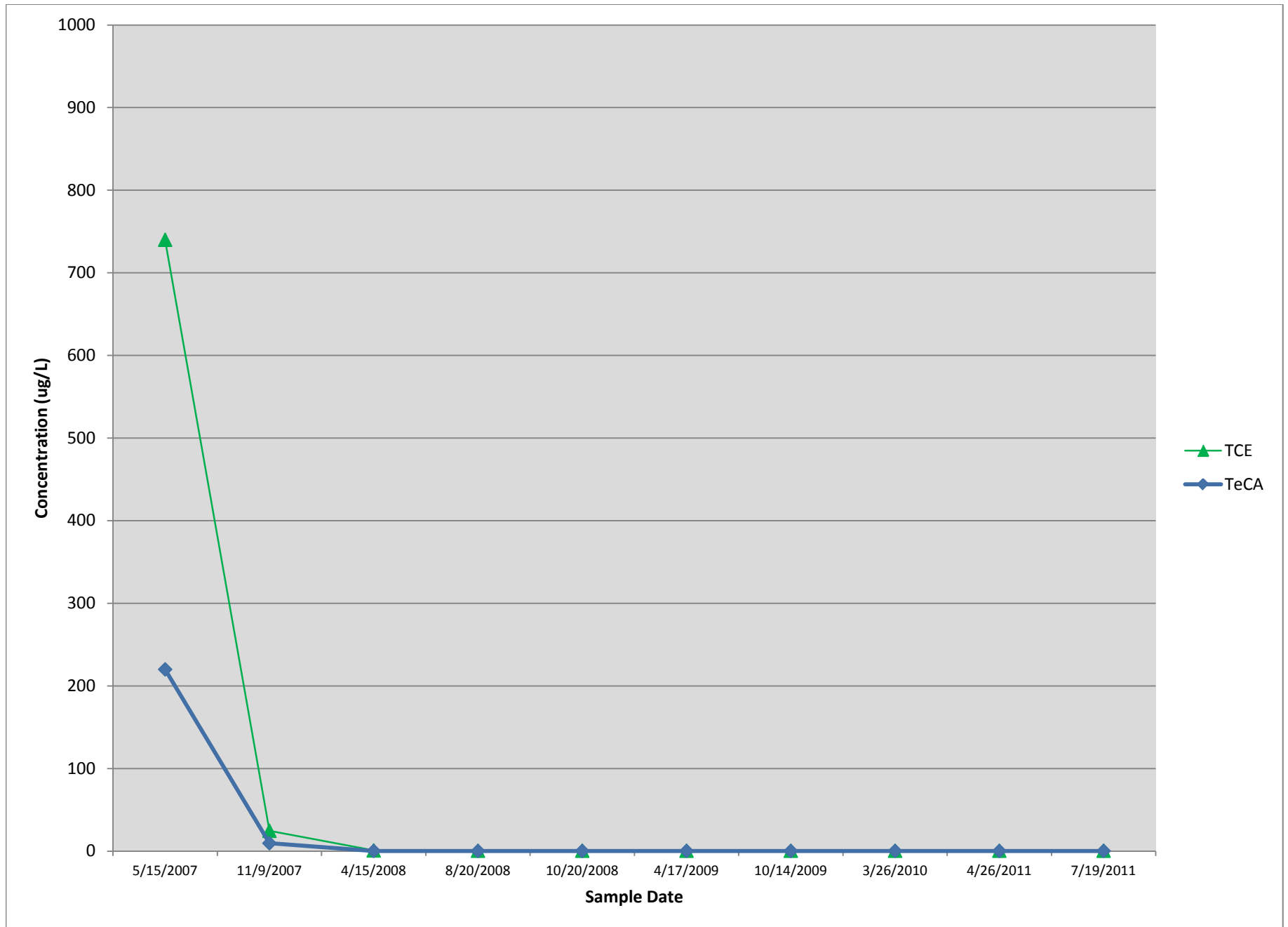
MW-224



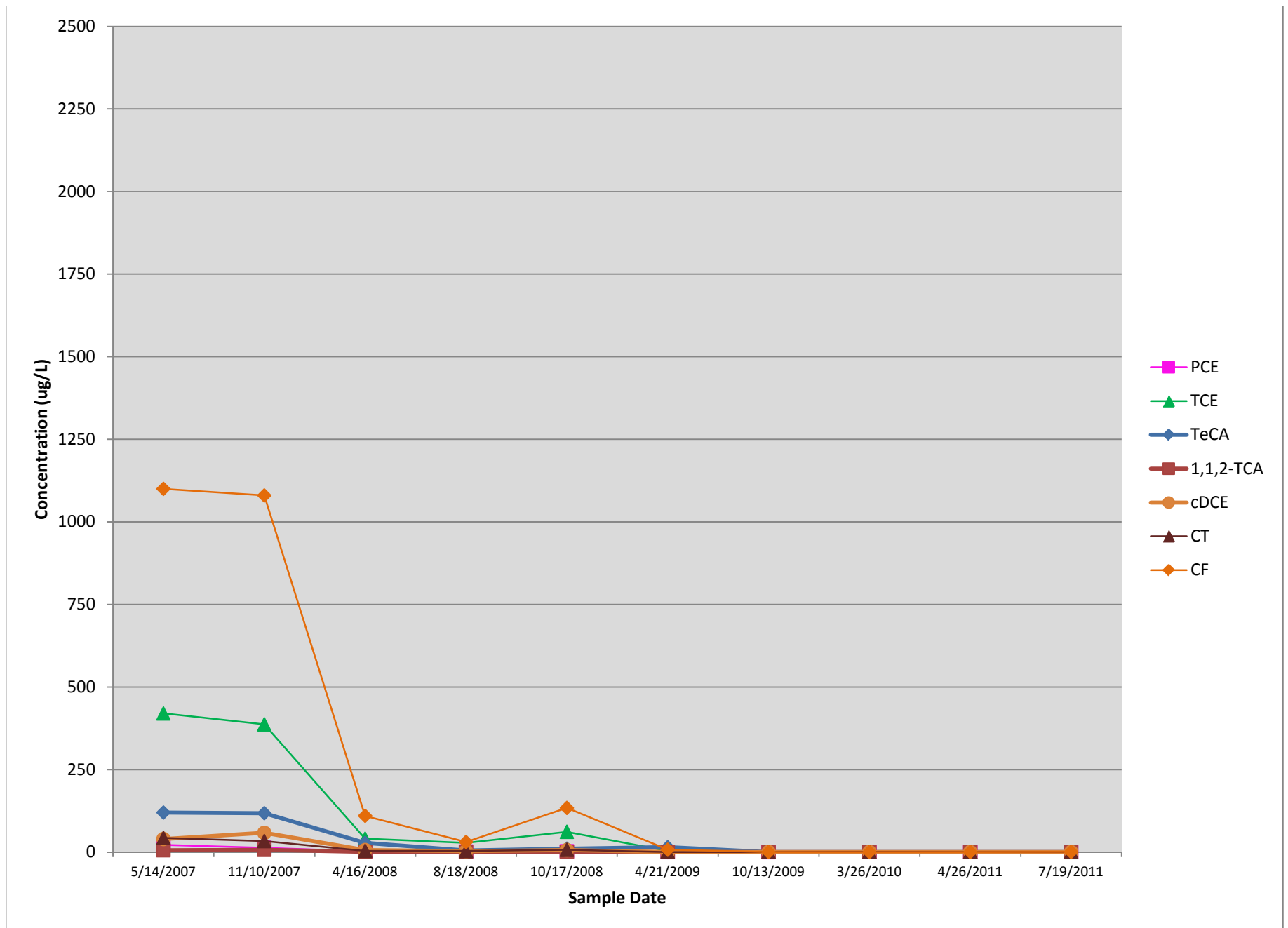
MW-225



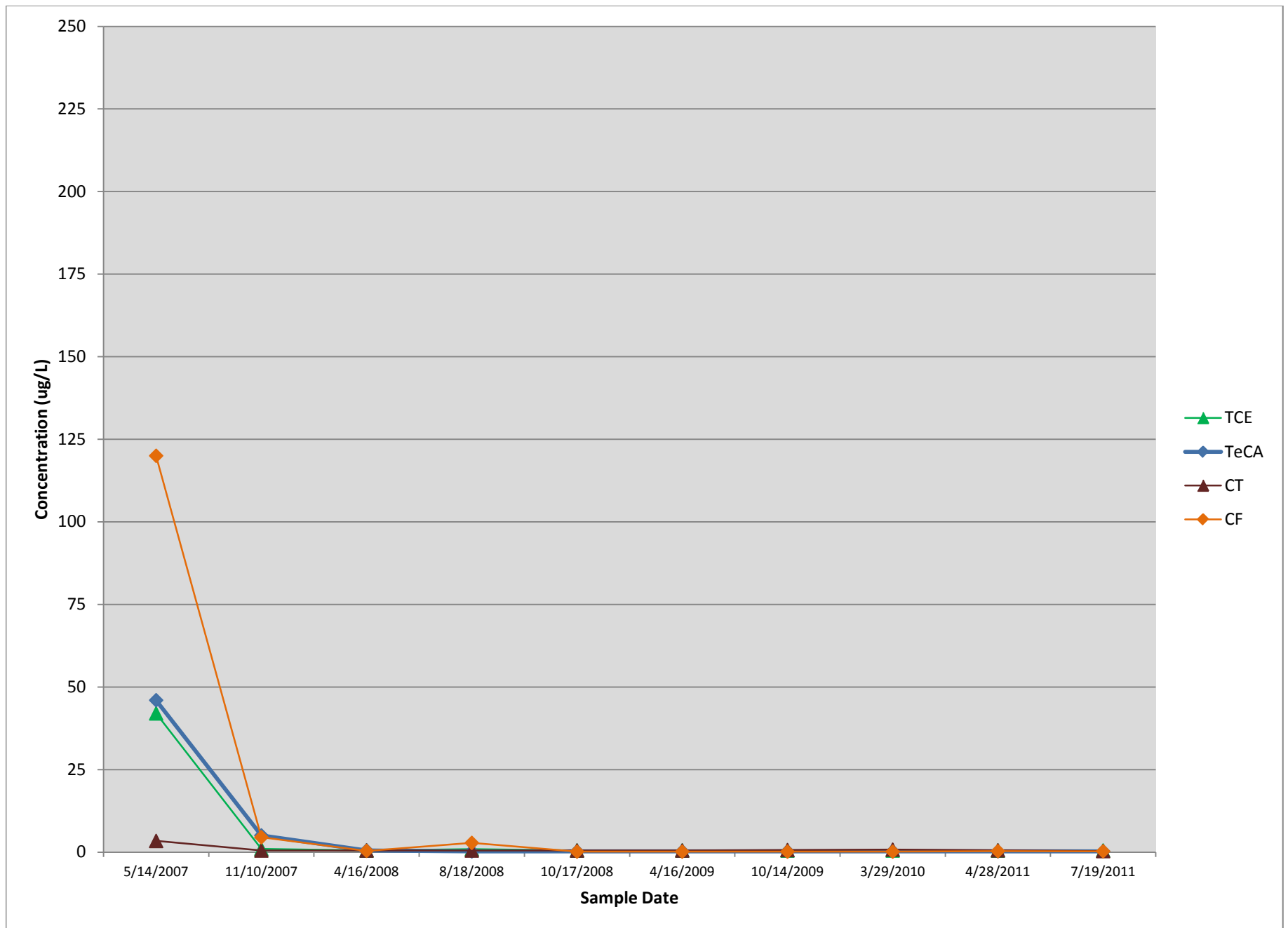
MW-226



MW-227



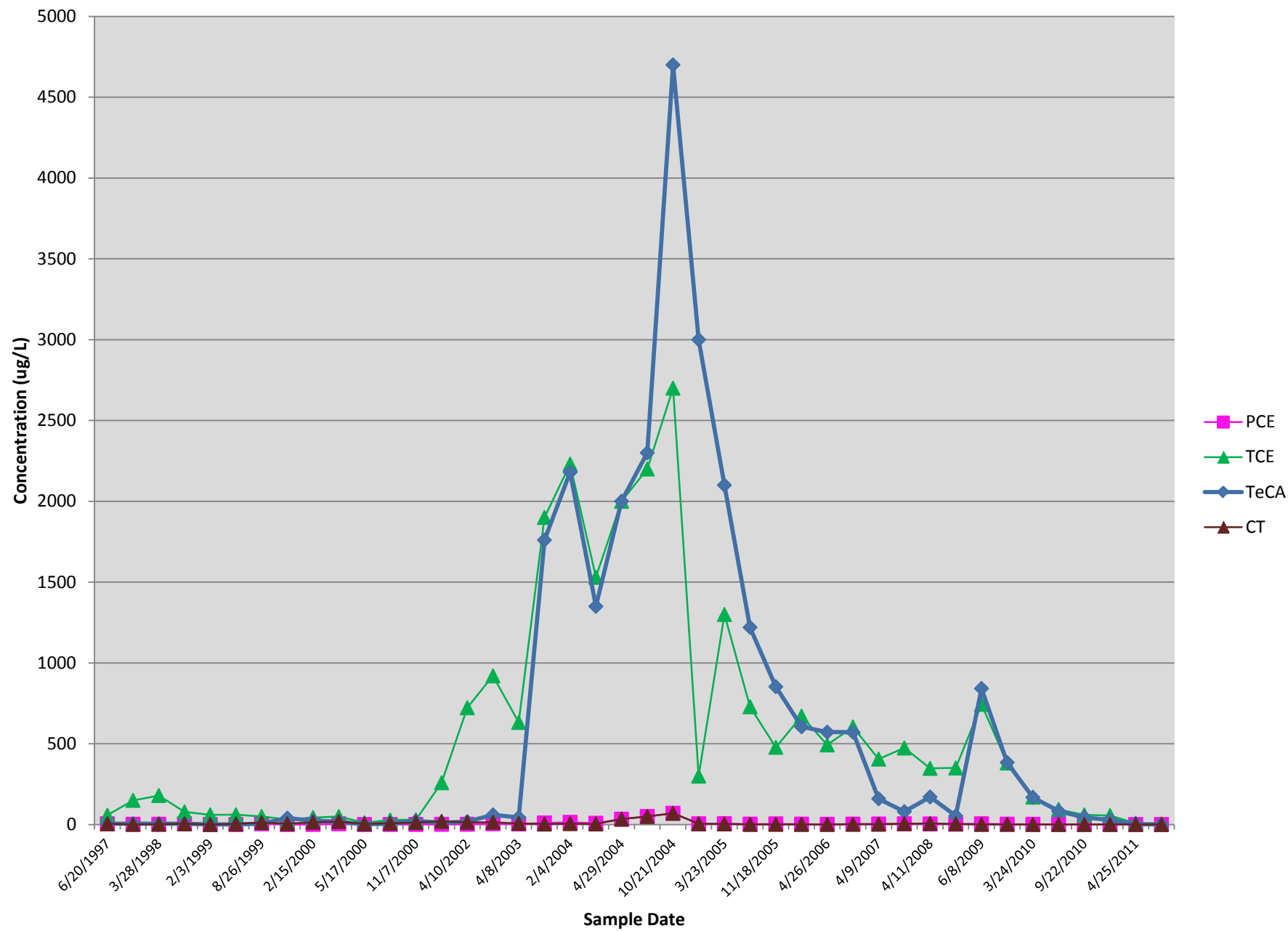
MW-228



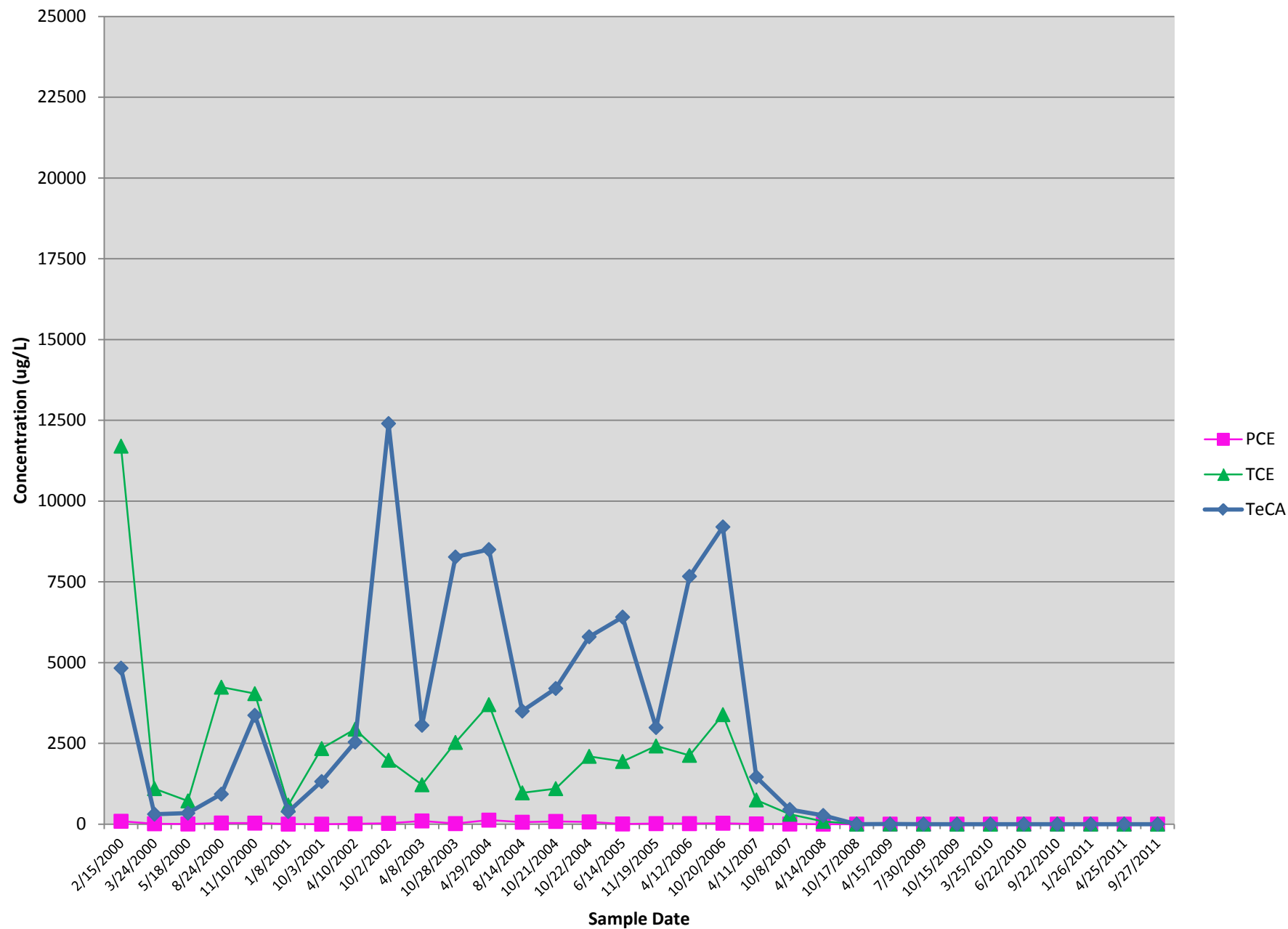
APPENDIX D-2

**PERFORMANCE MONITORING WELLS
CVOC TIME-TREND PLOTS**

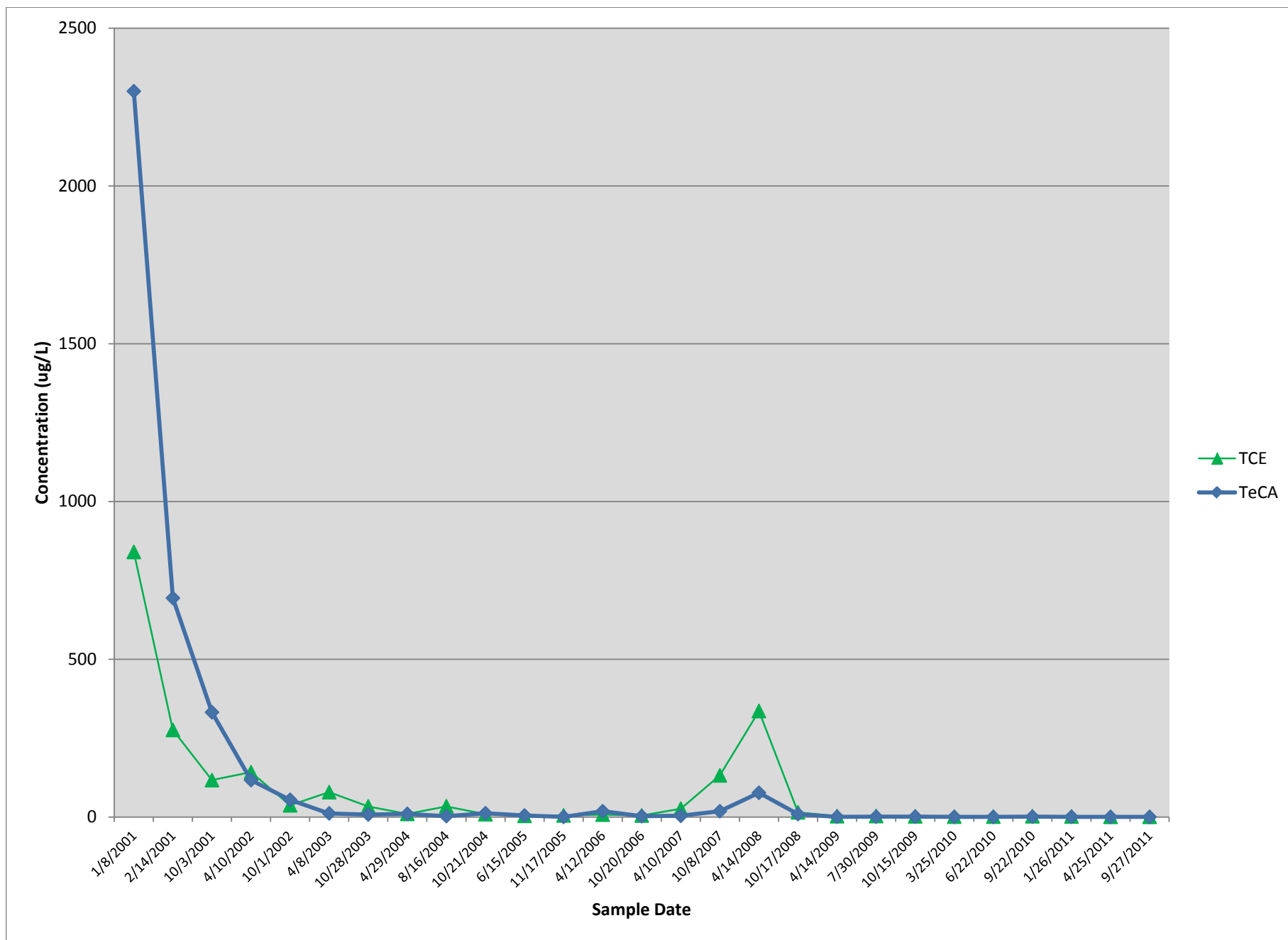
MW-54

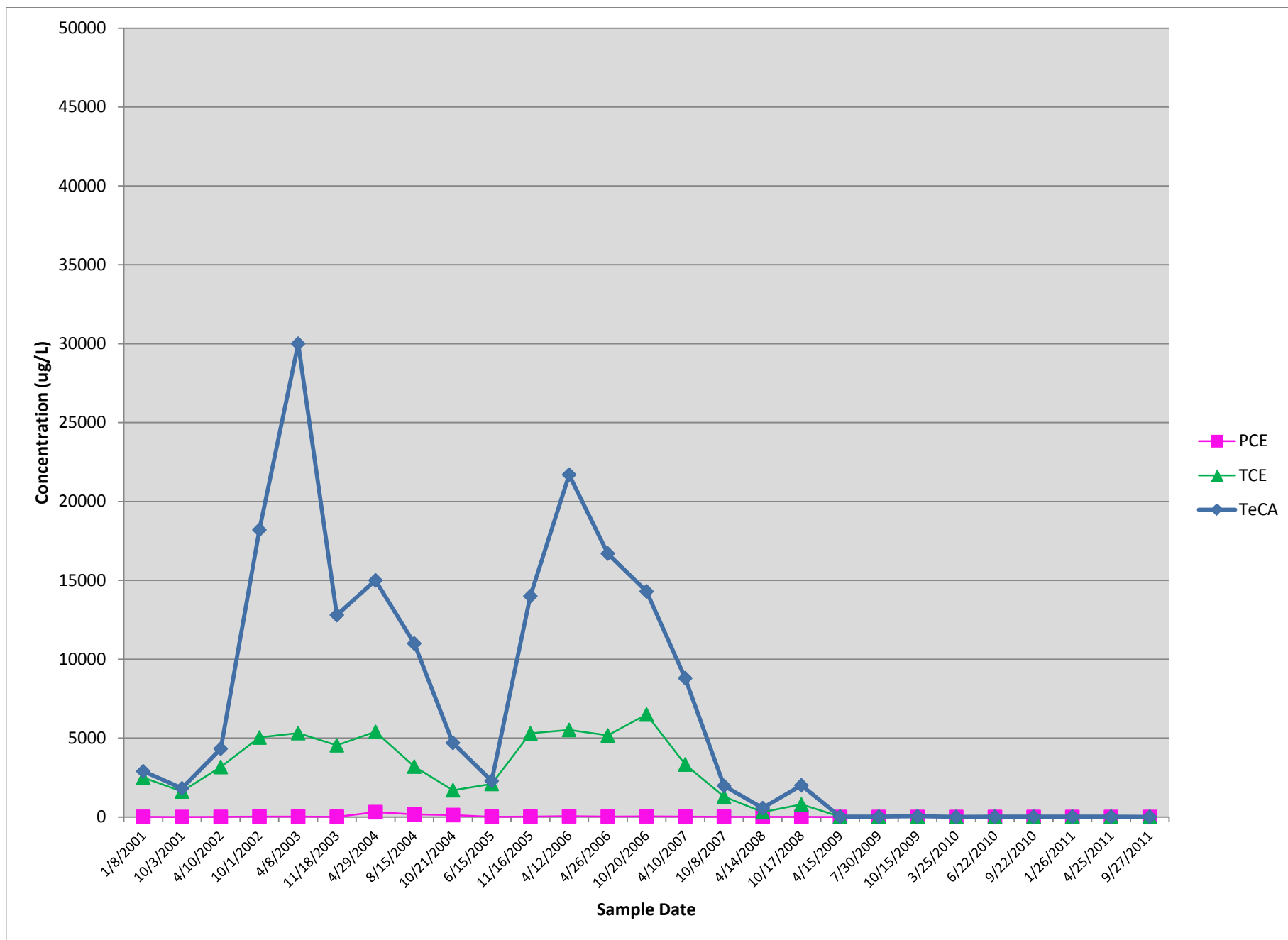


MW-70

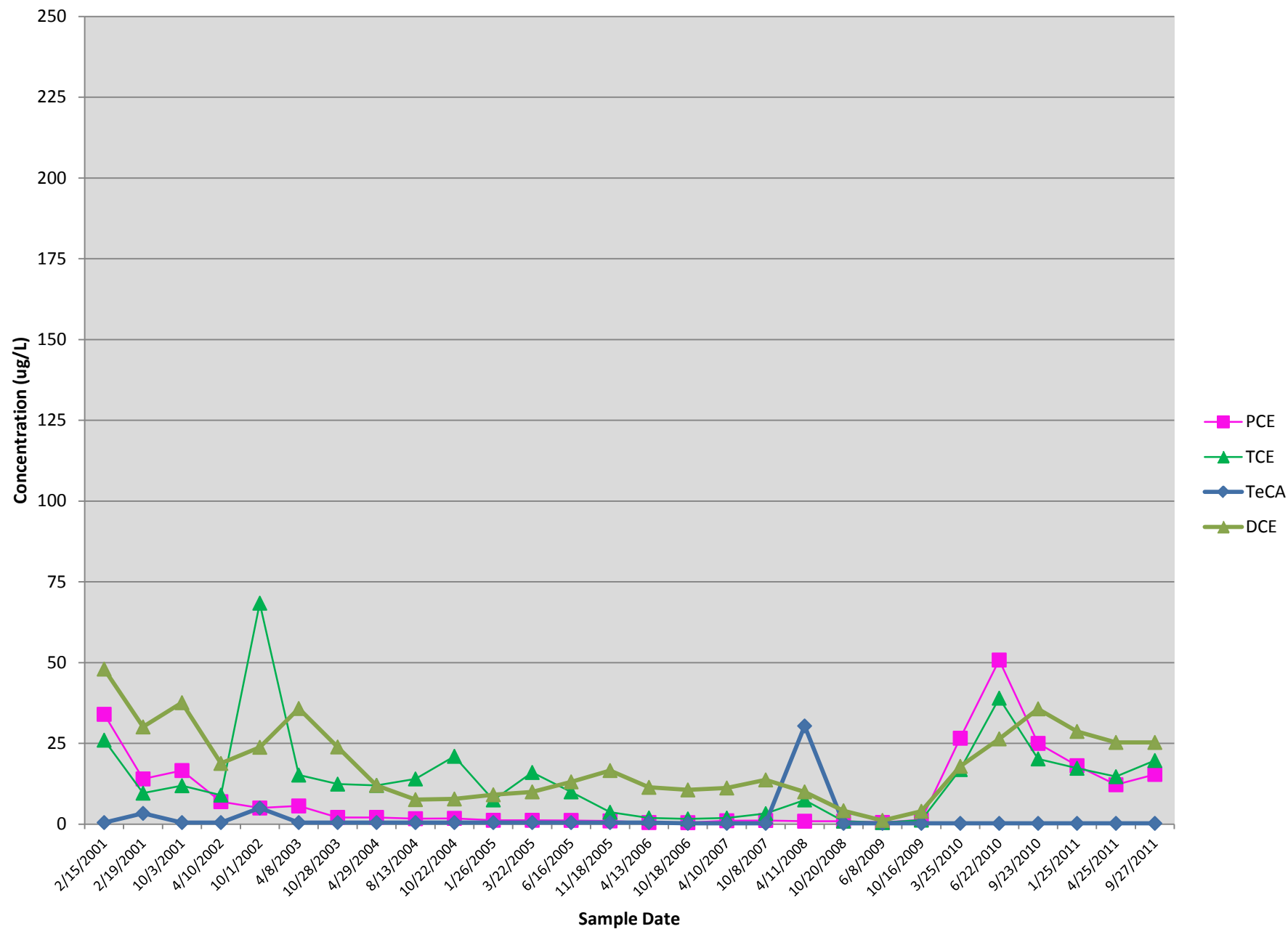


MW-76

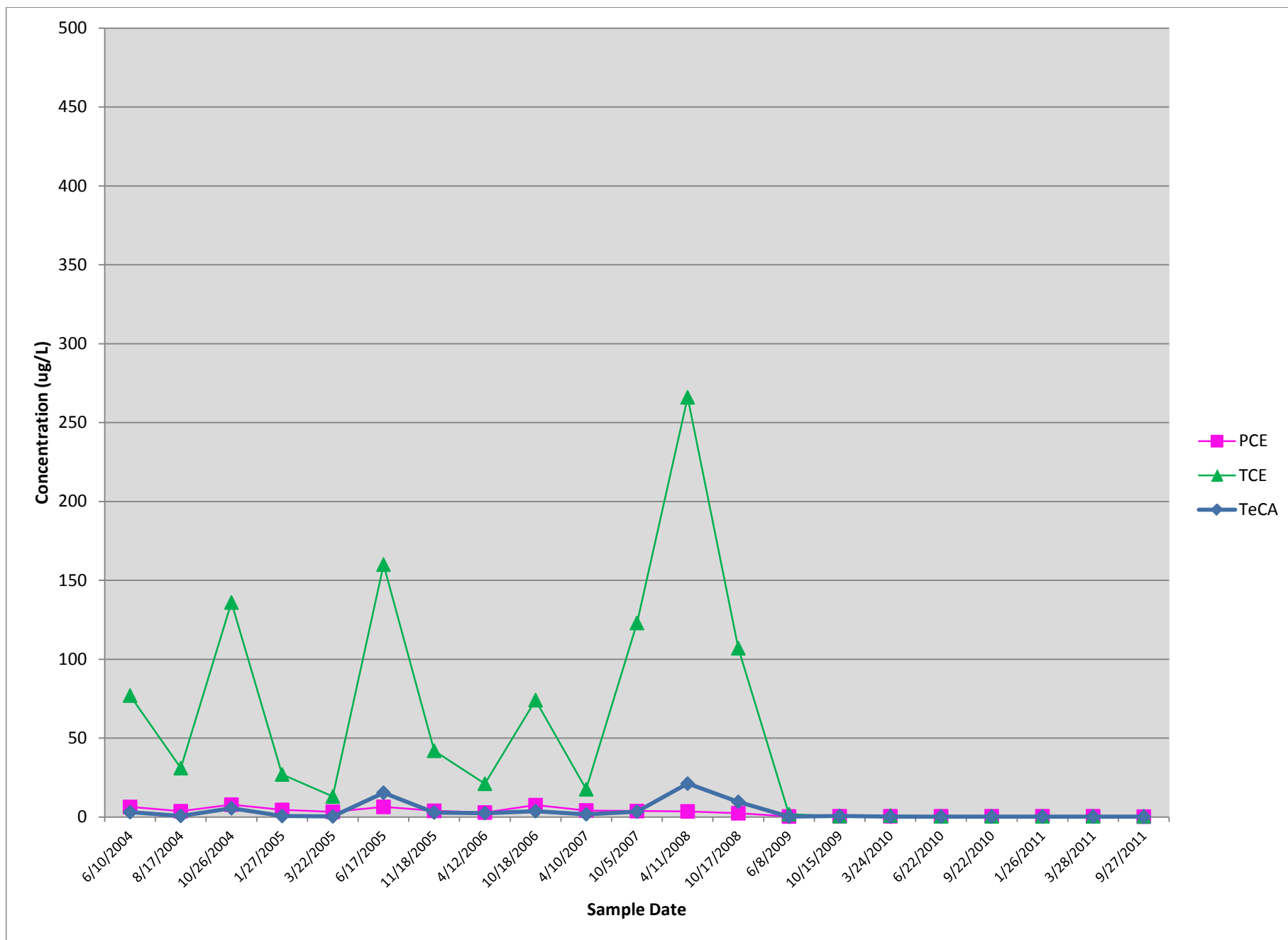




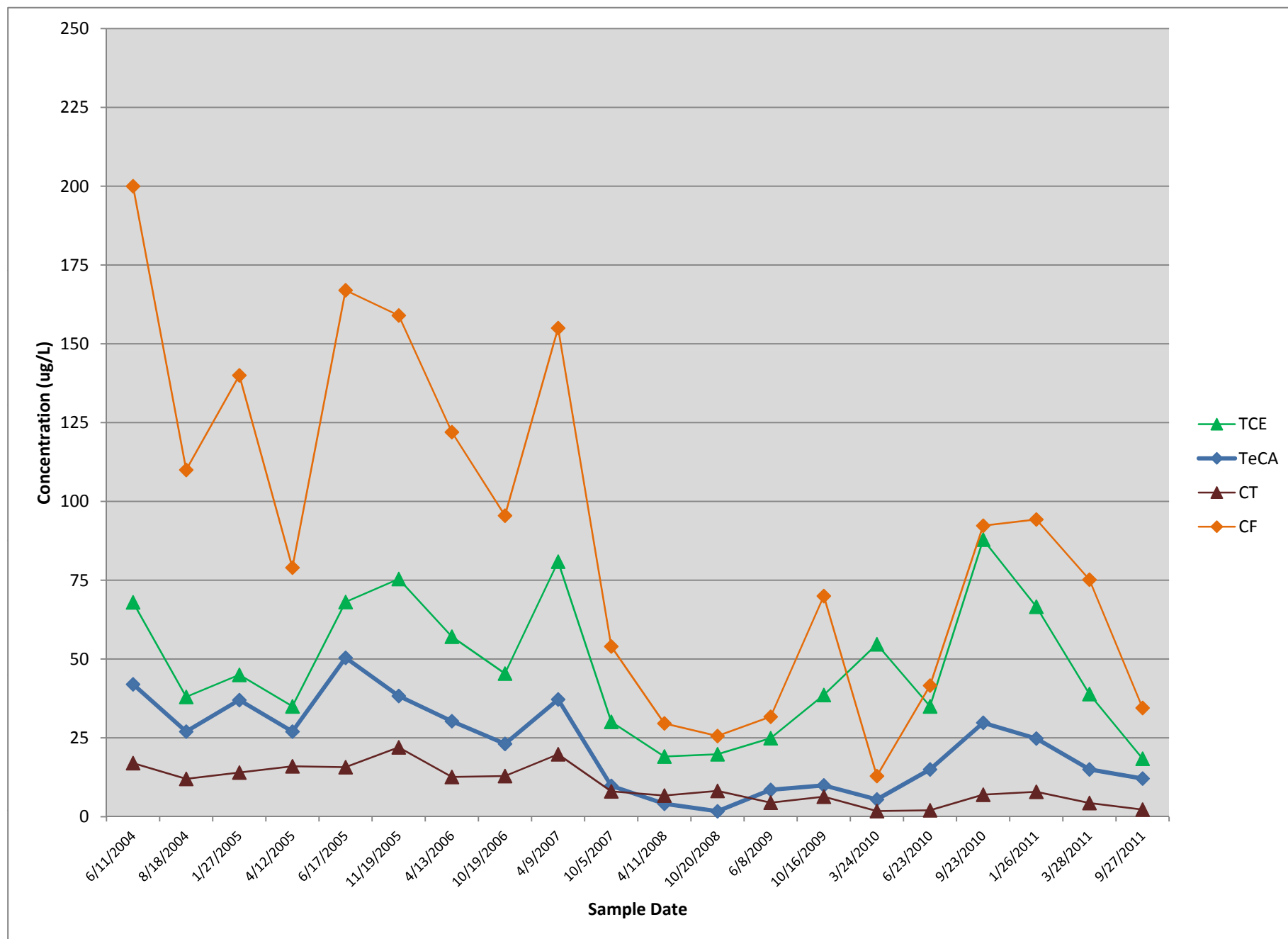
MW-79



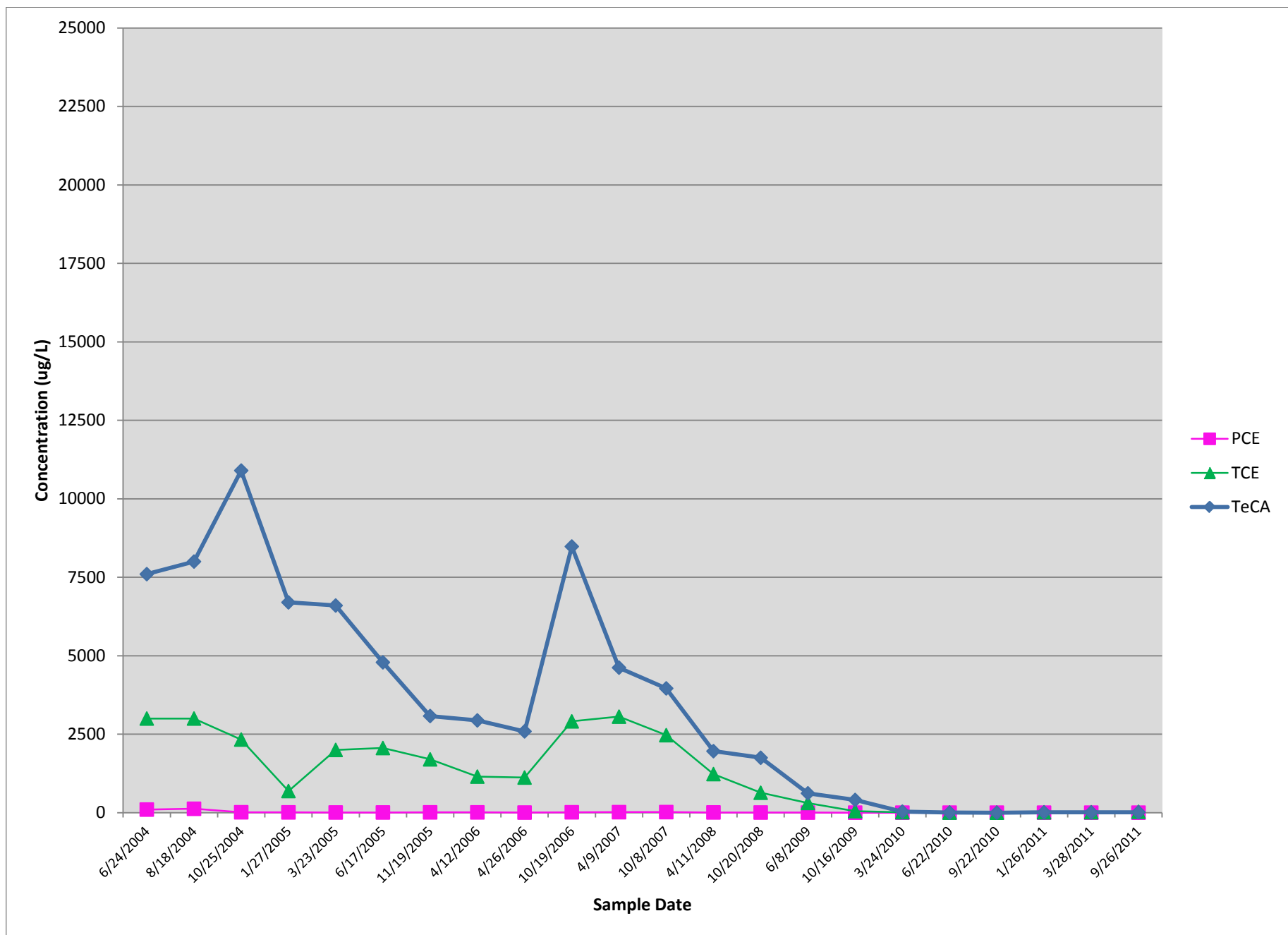
MW-148



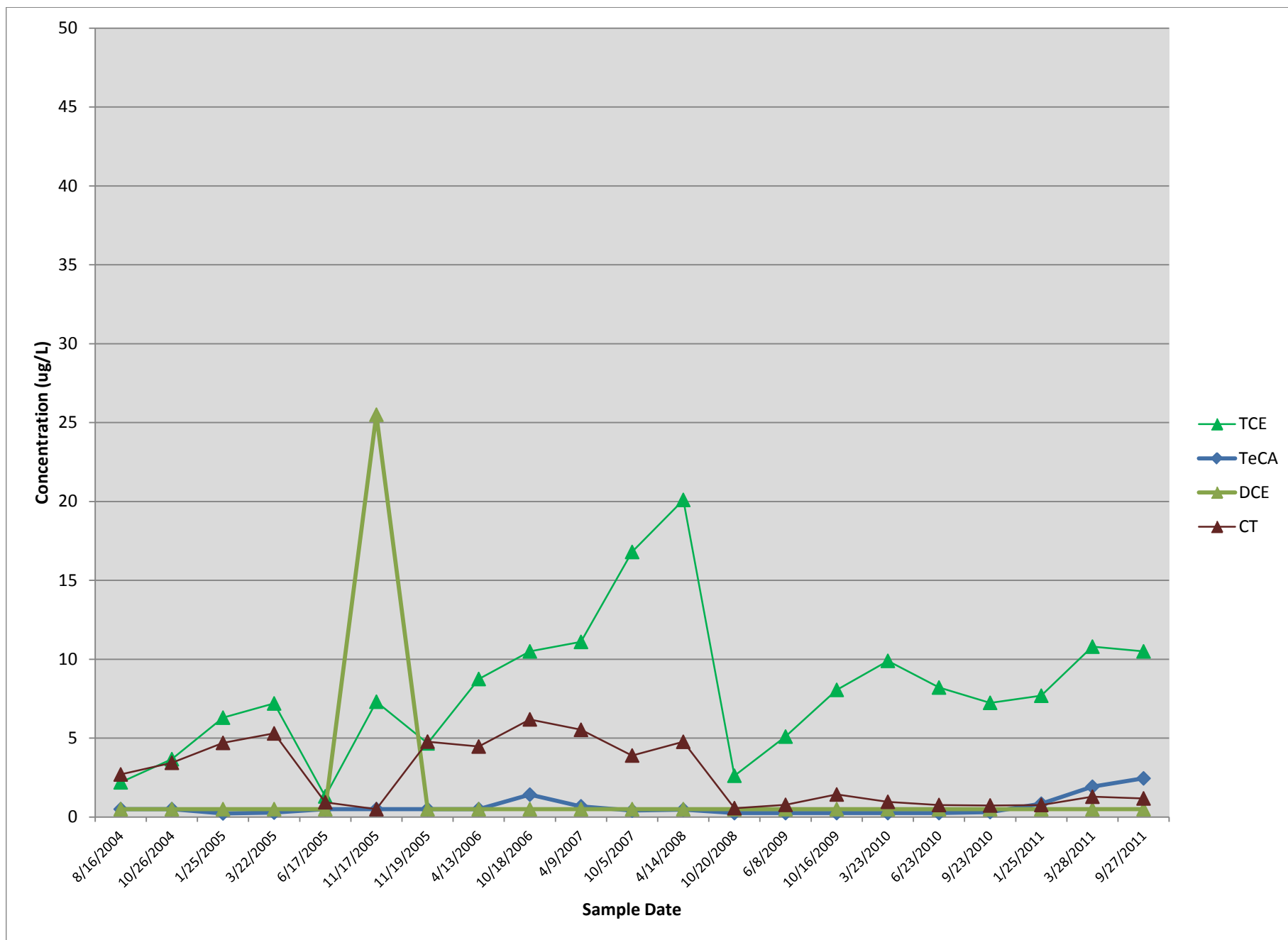
MW-149



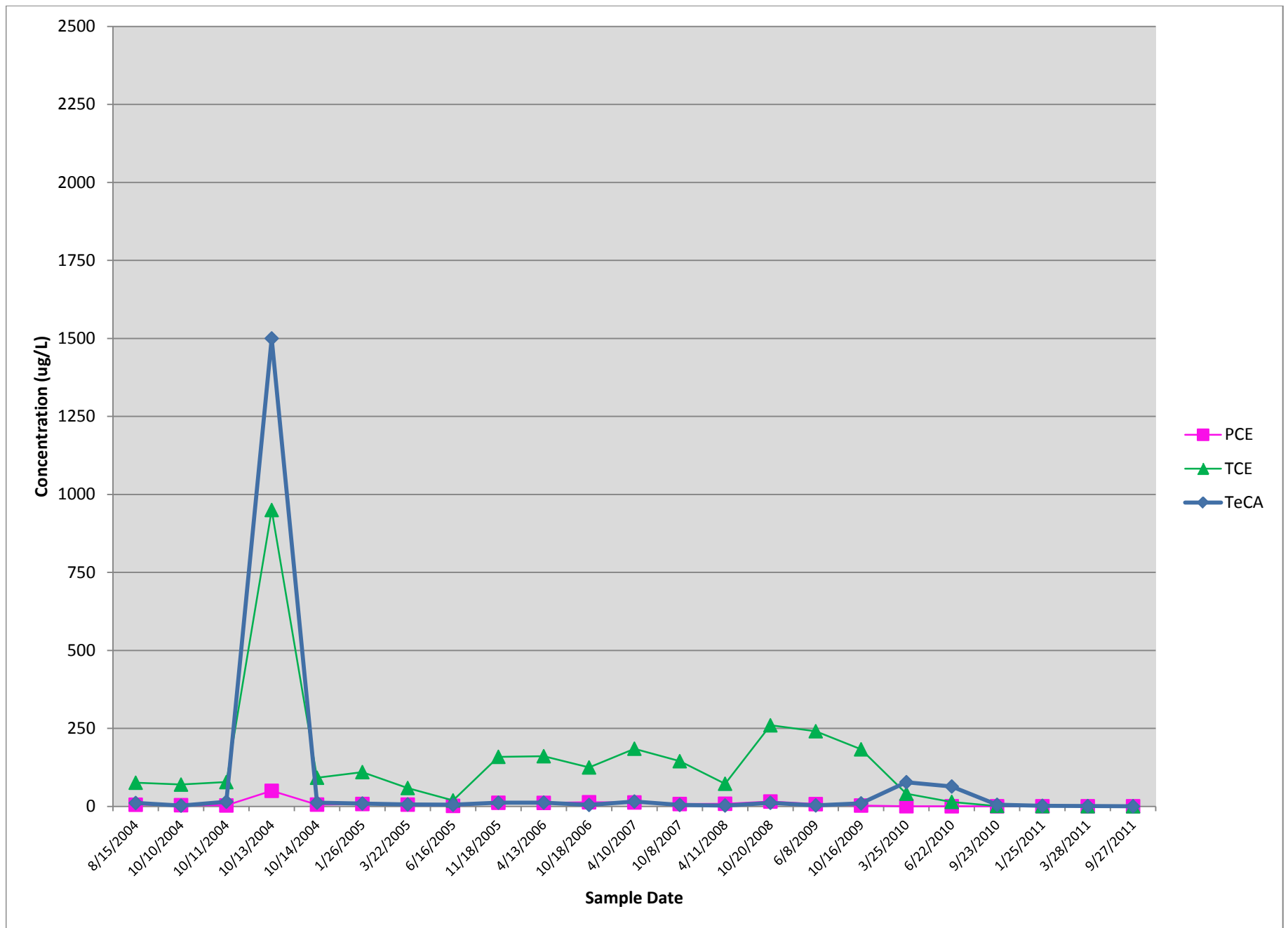
MW-150



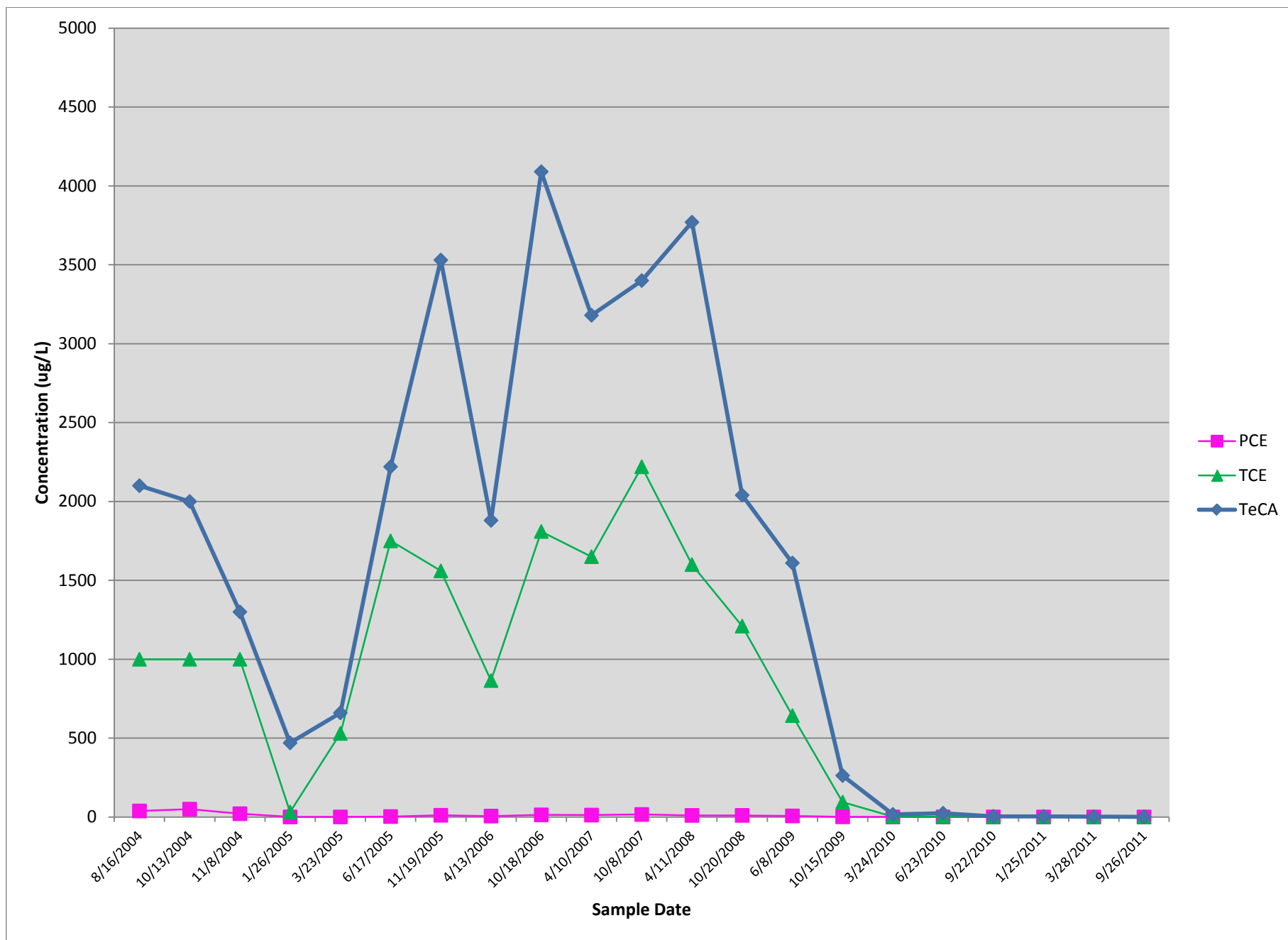
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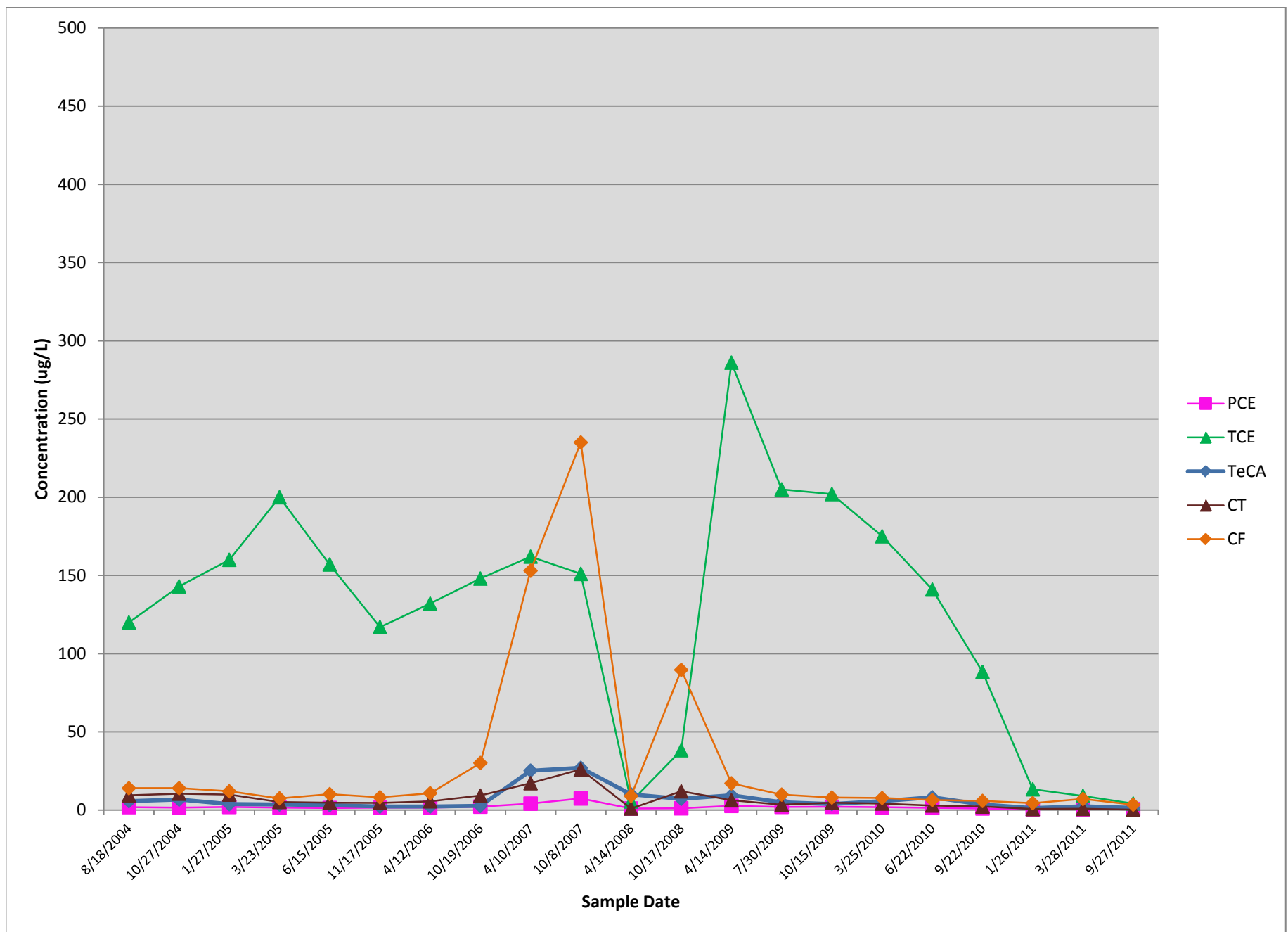
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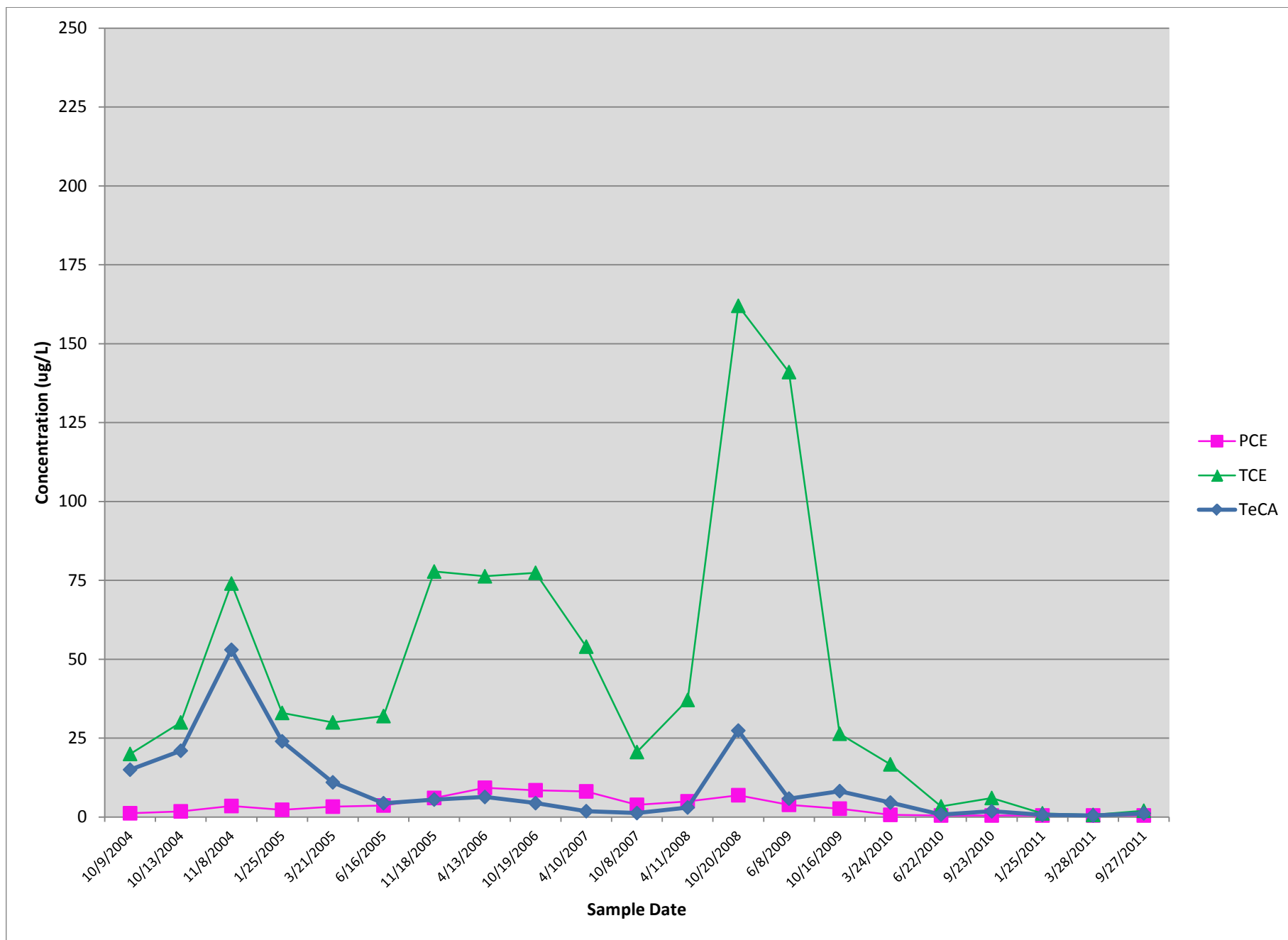
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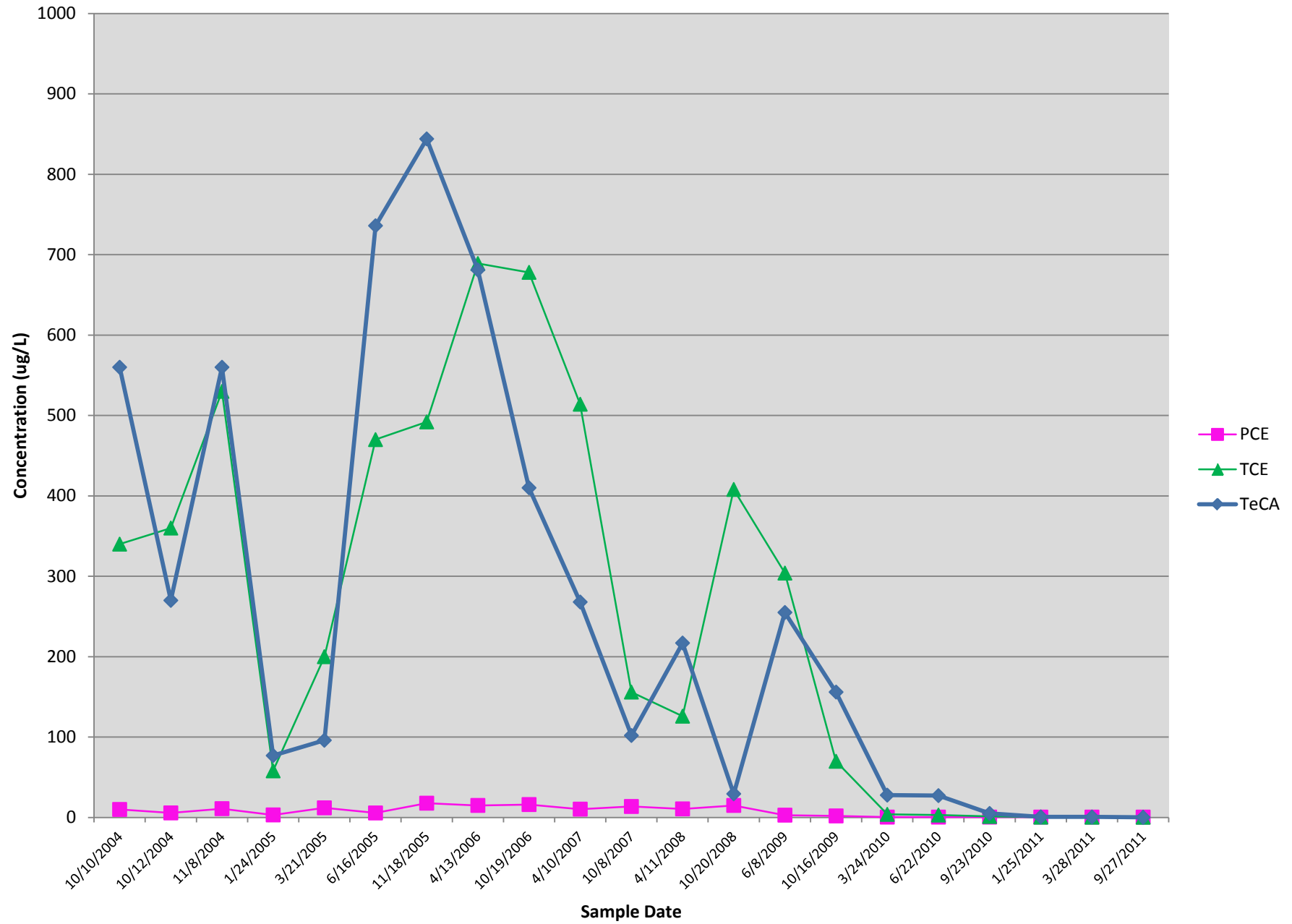
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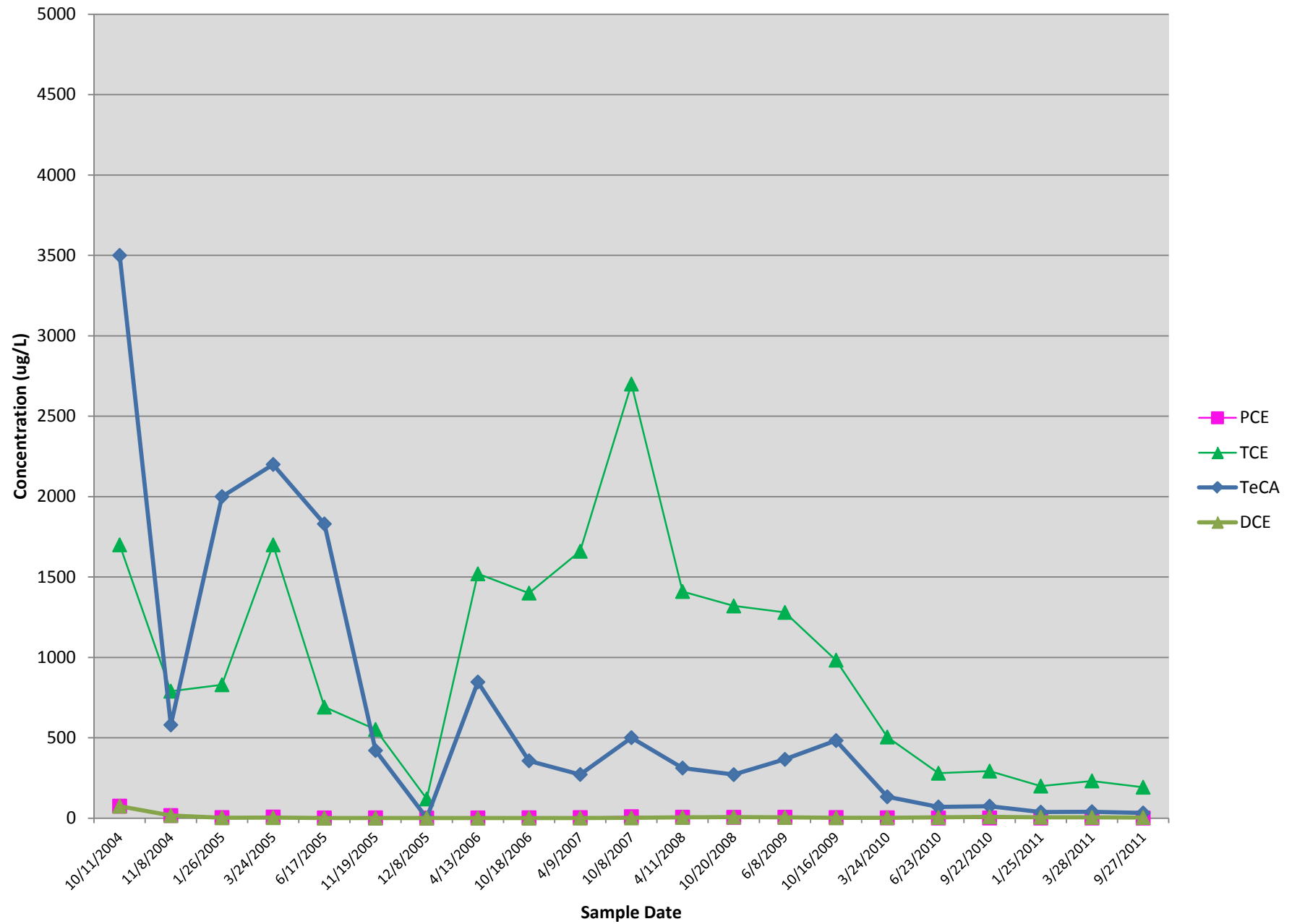
MW-158



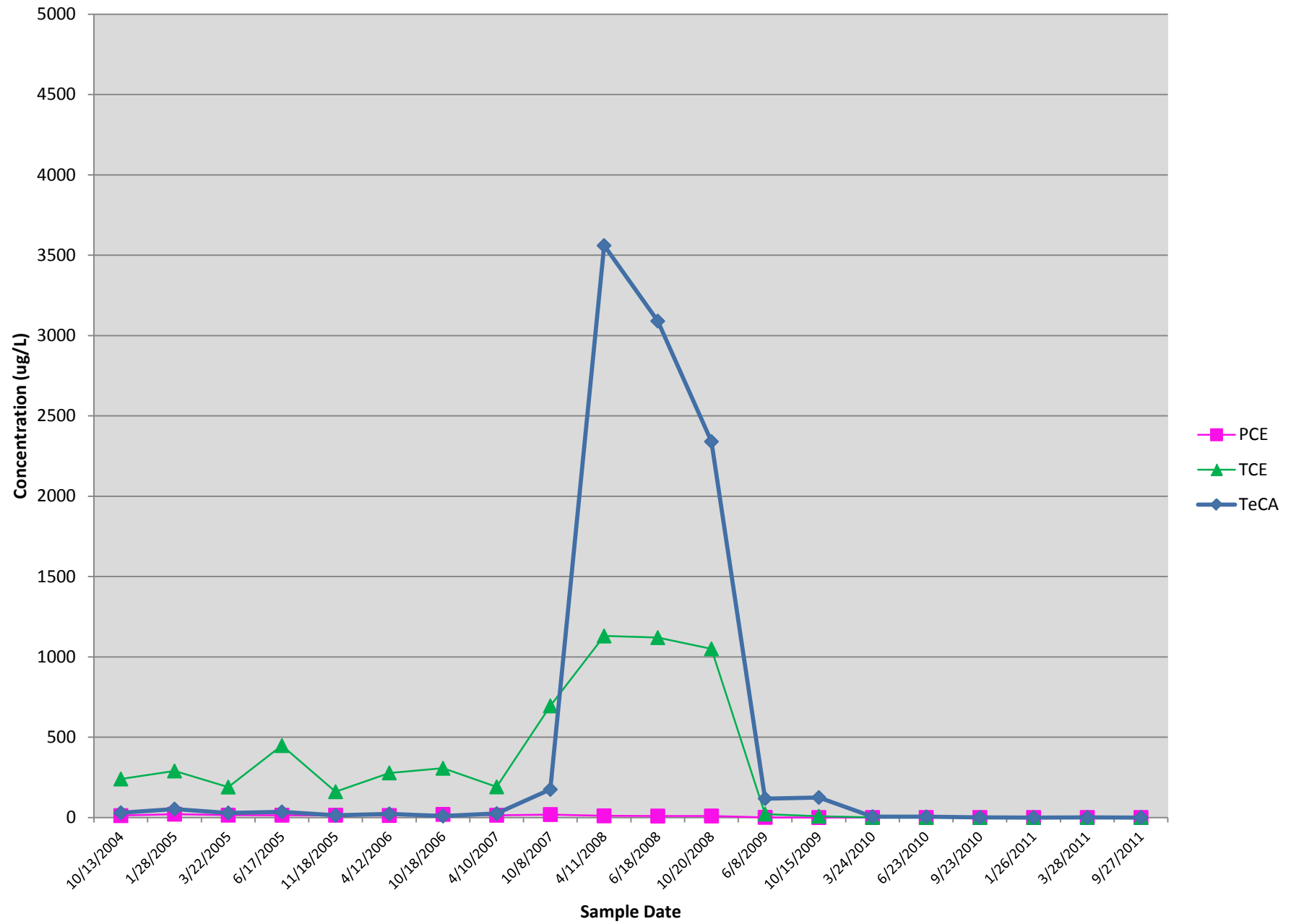
MW-158A



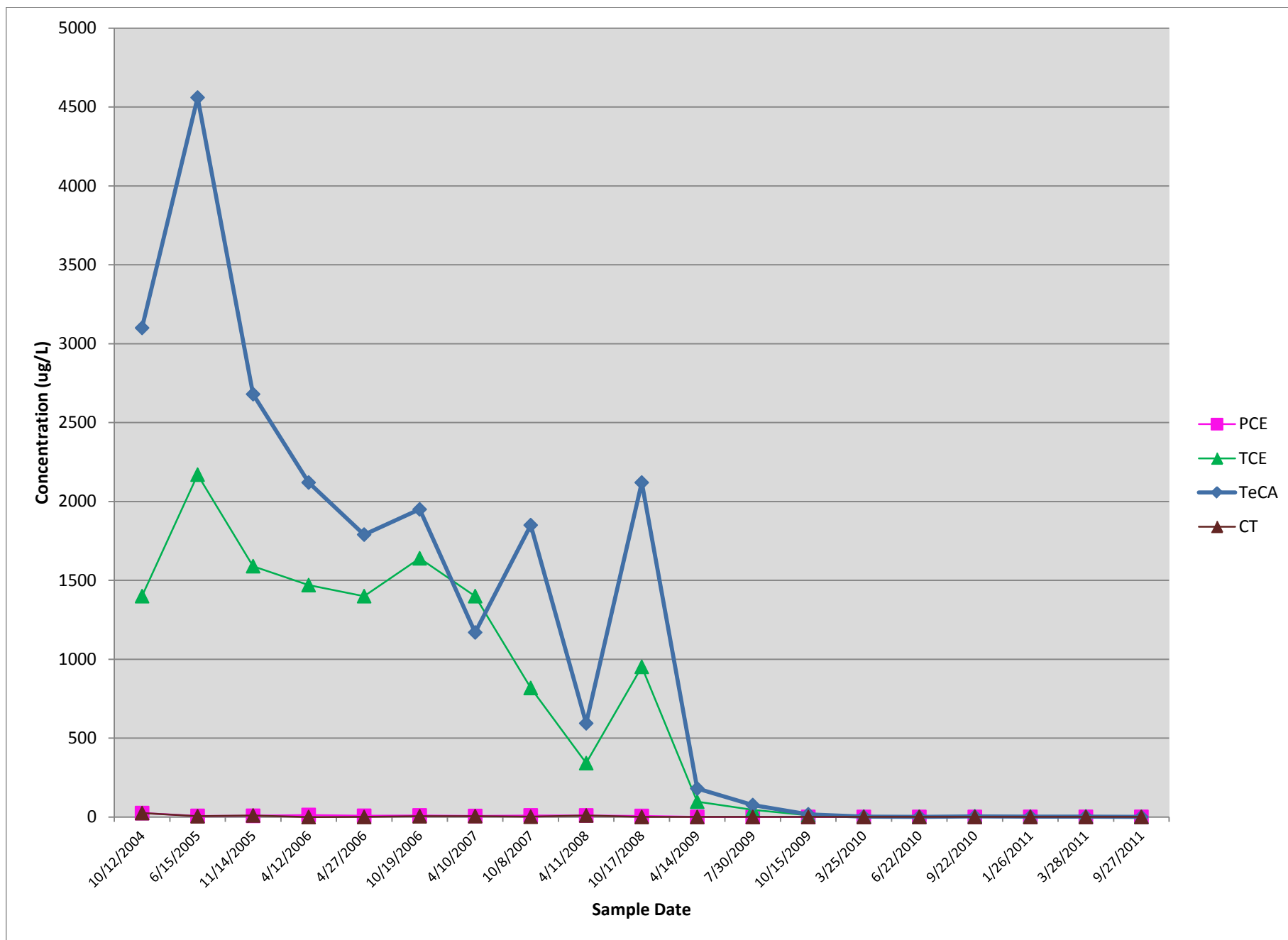
MW-159



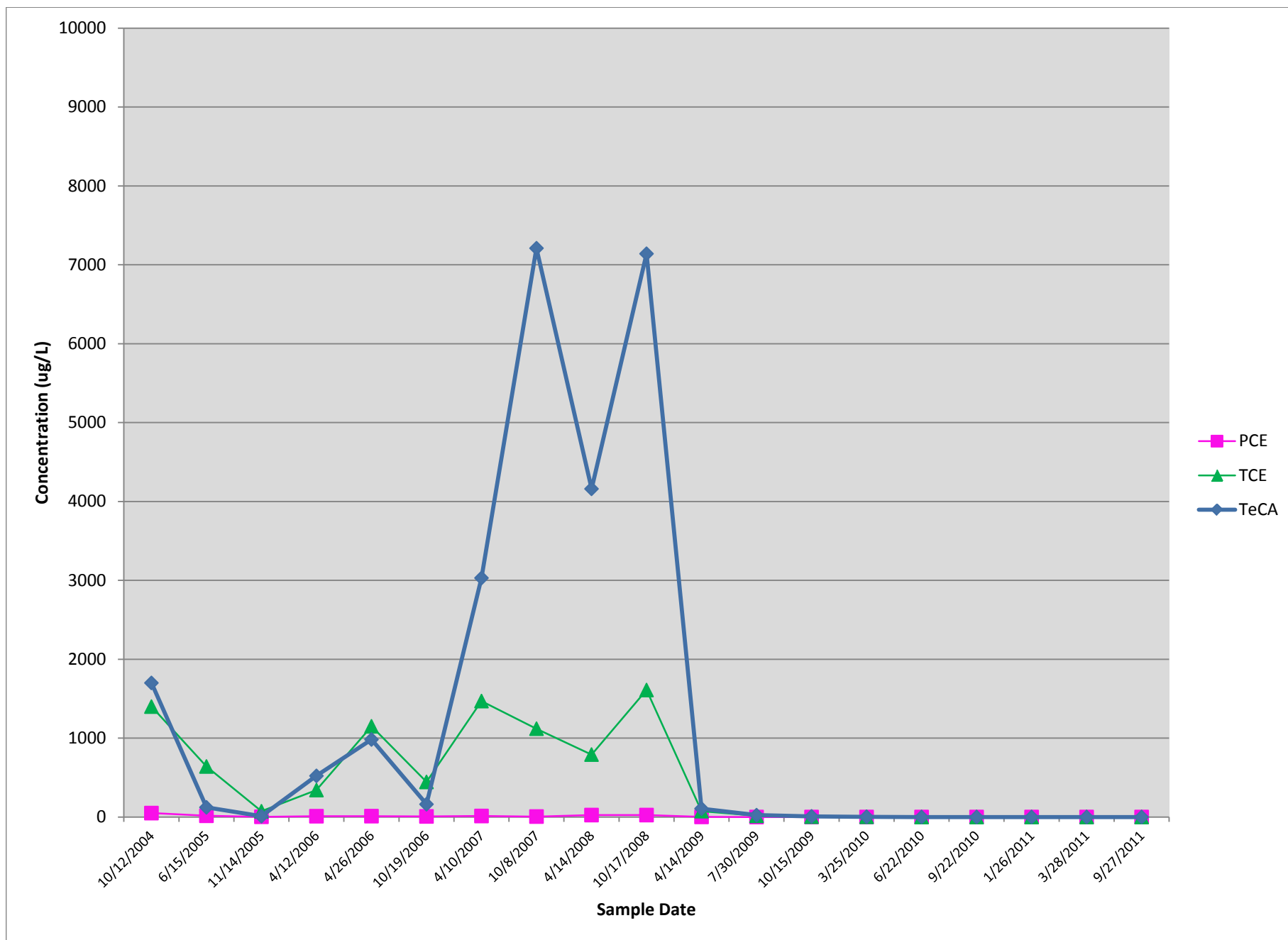
MW-160



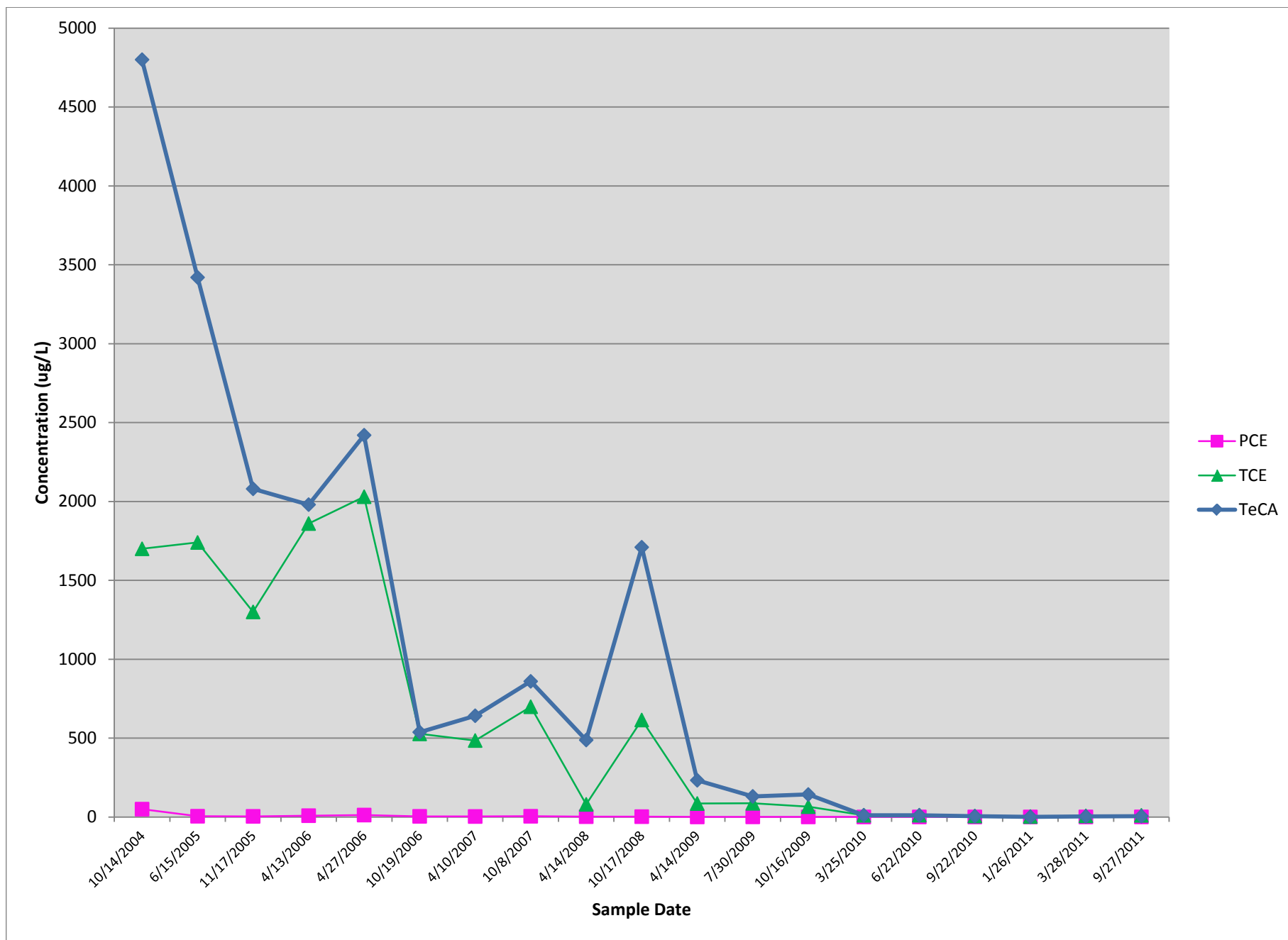
MW-161



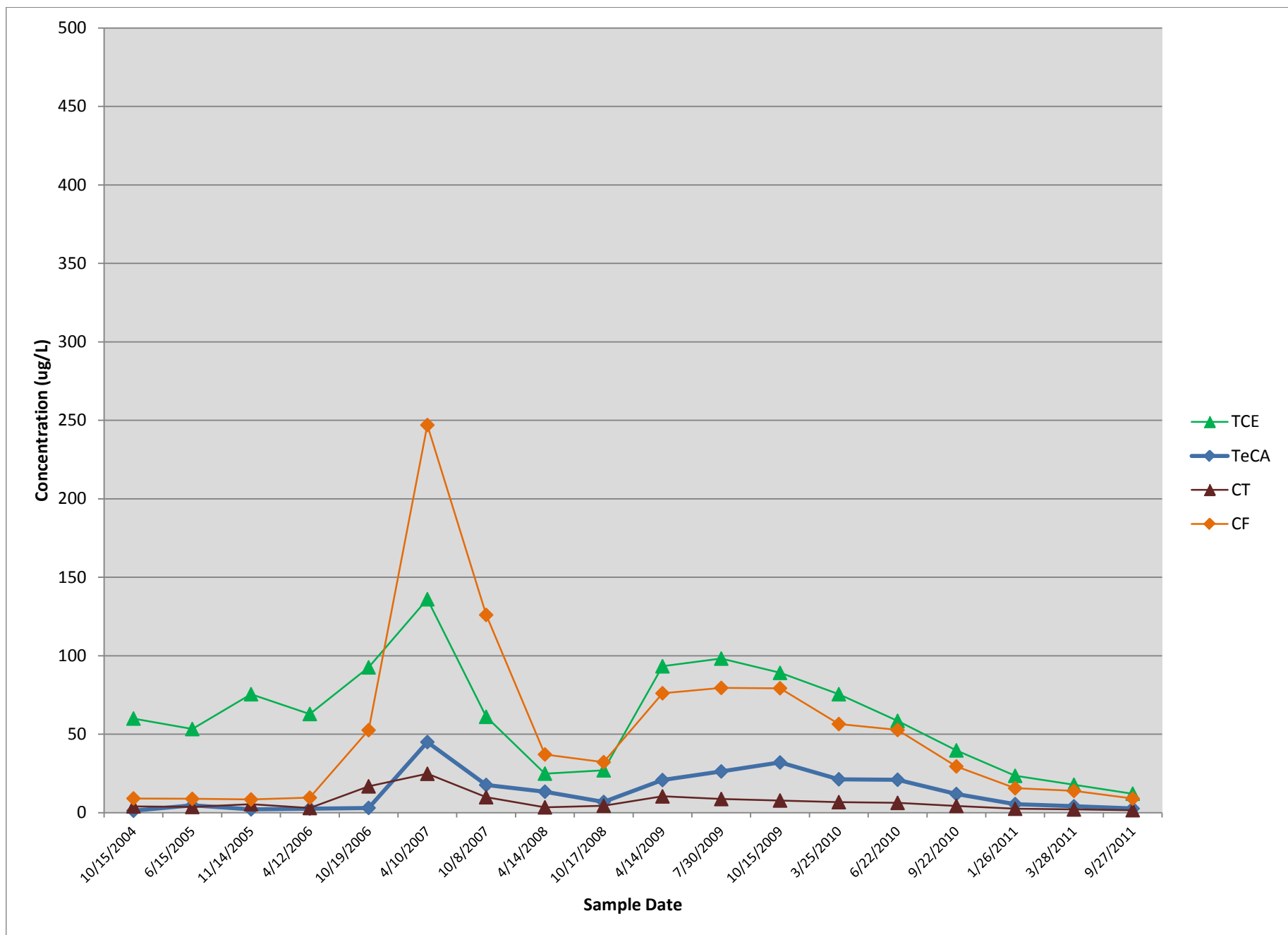
MW-162



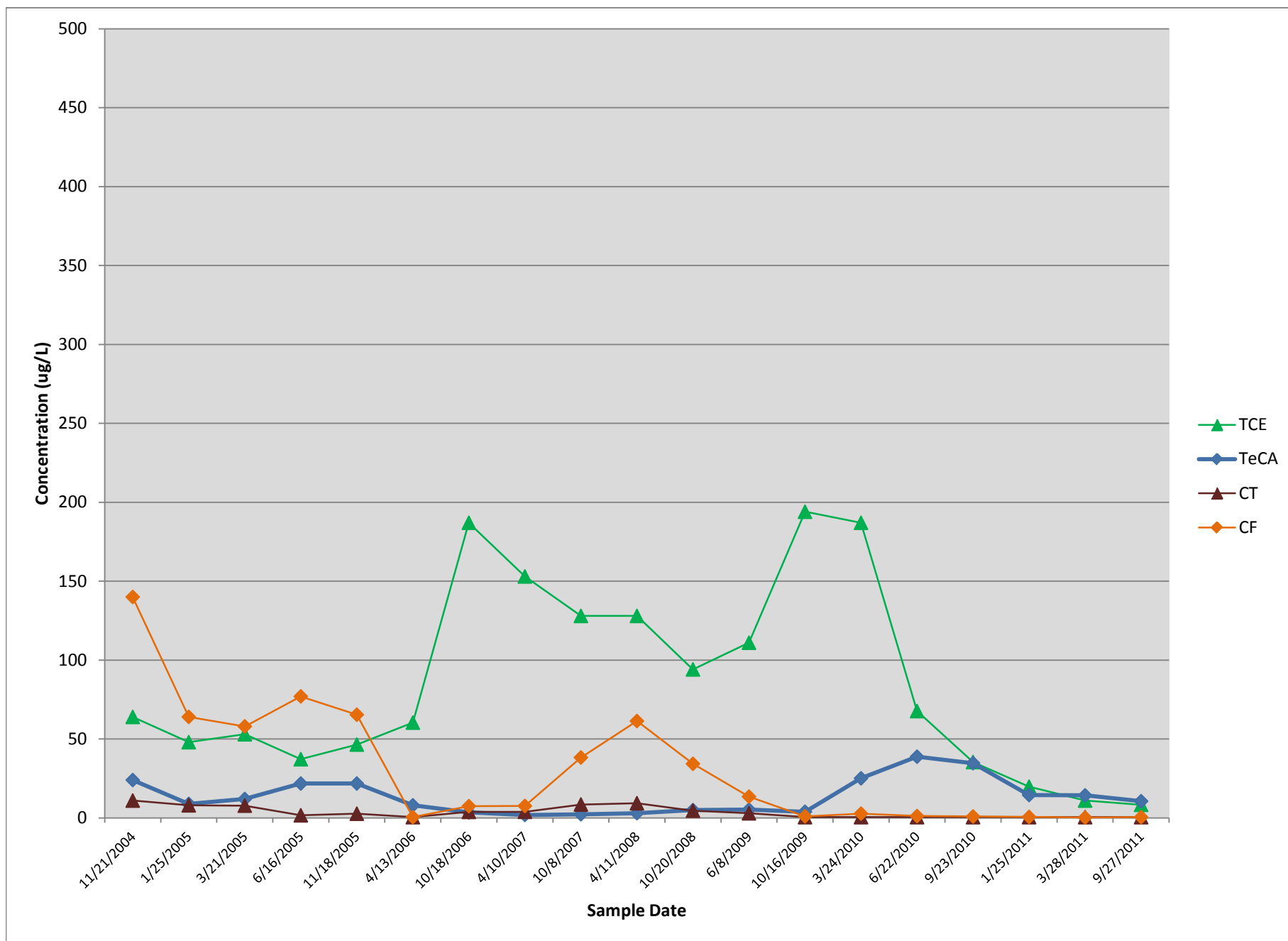
MW-163



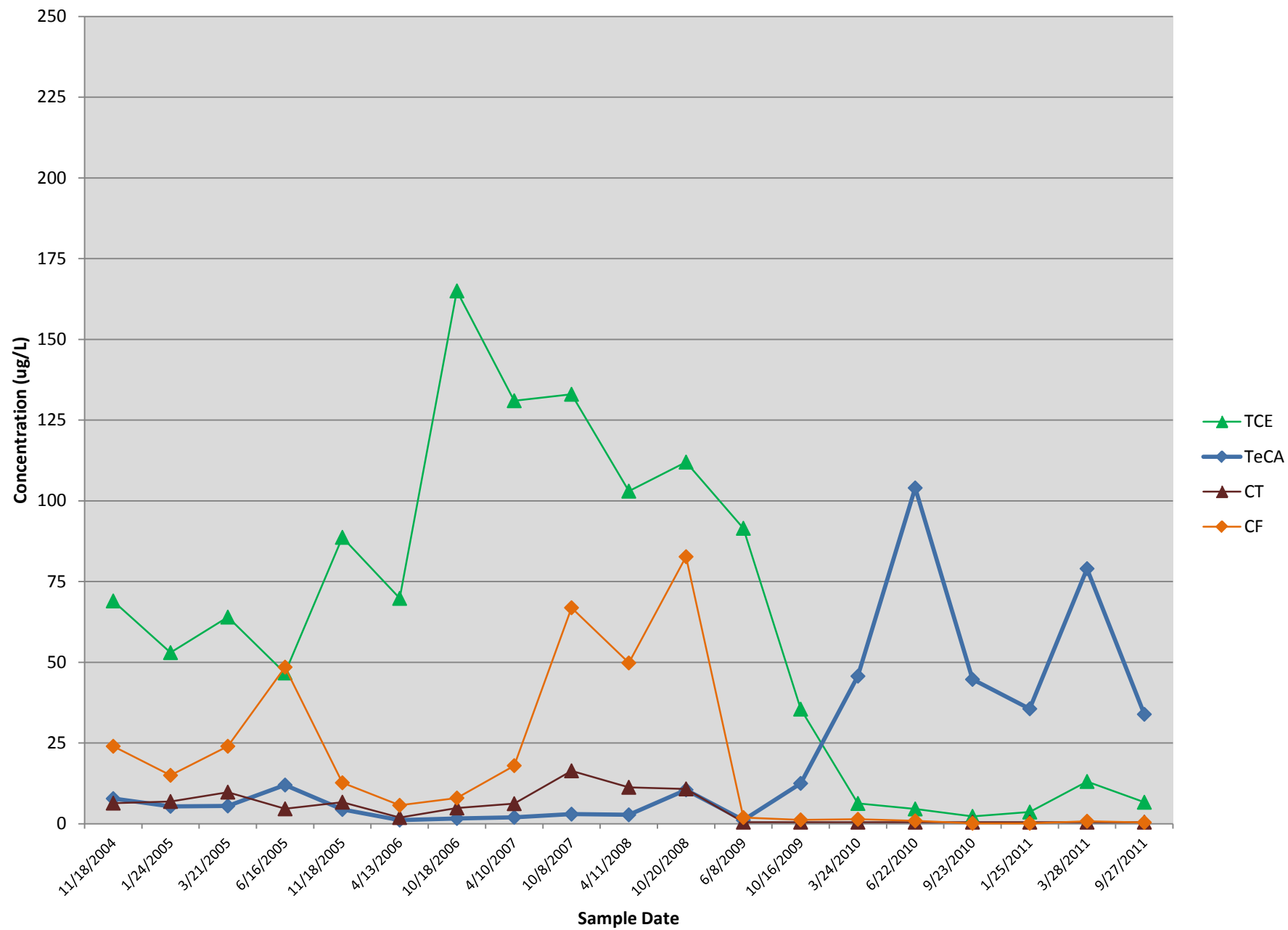
MW-164



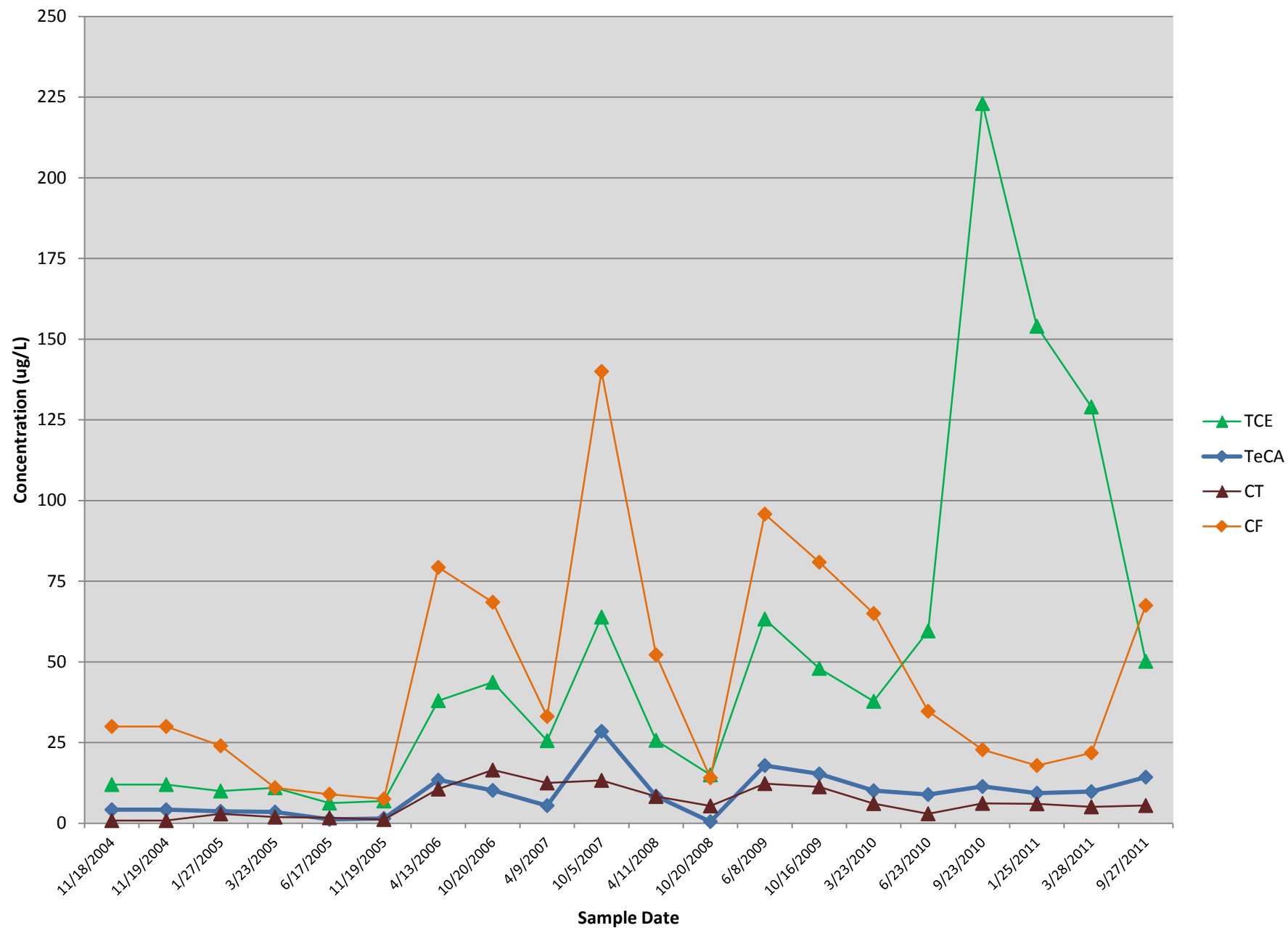
MW-165



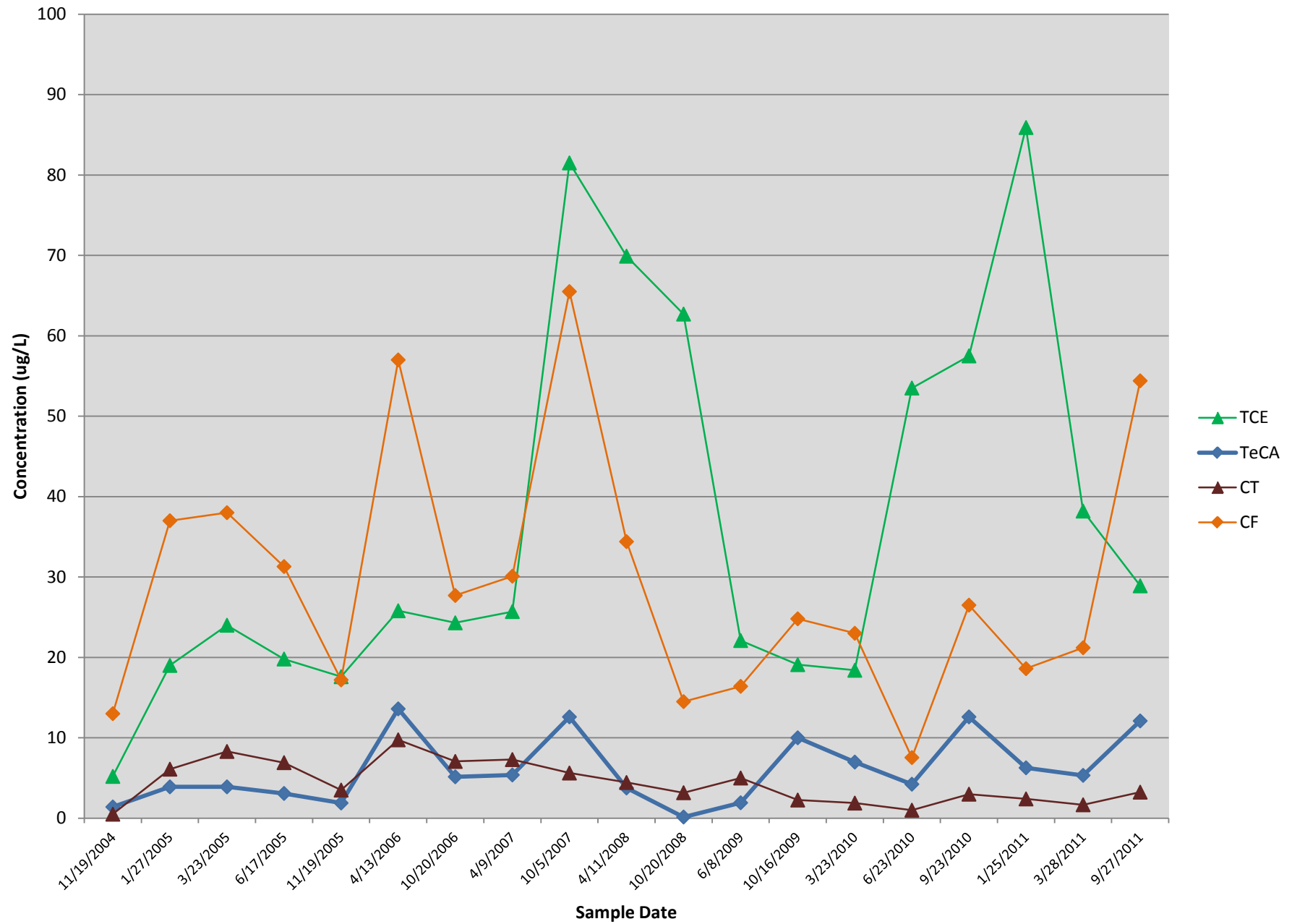
MW-165A



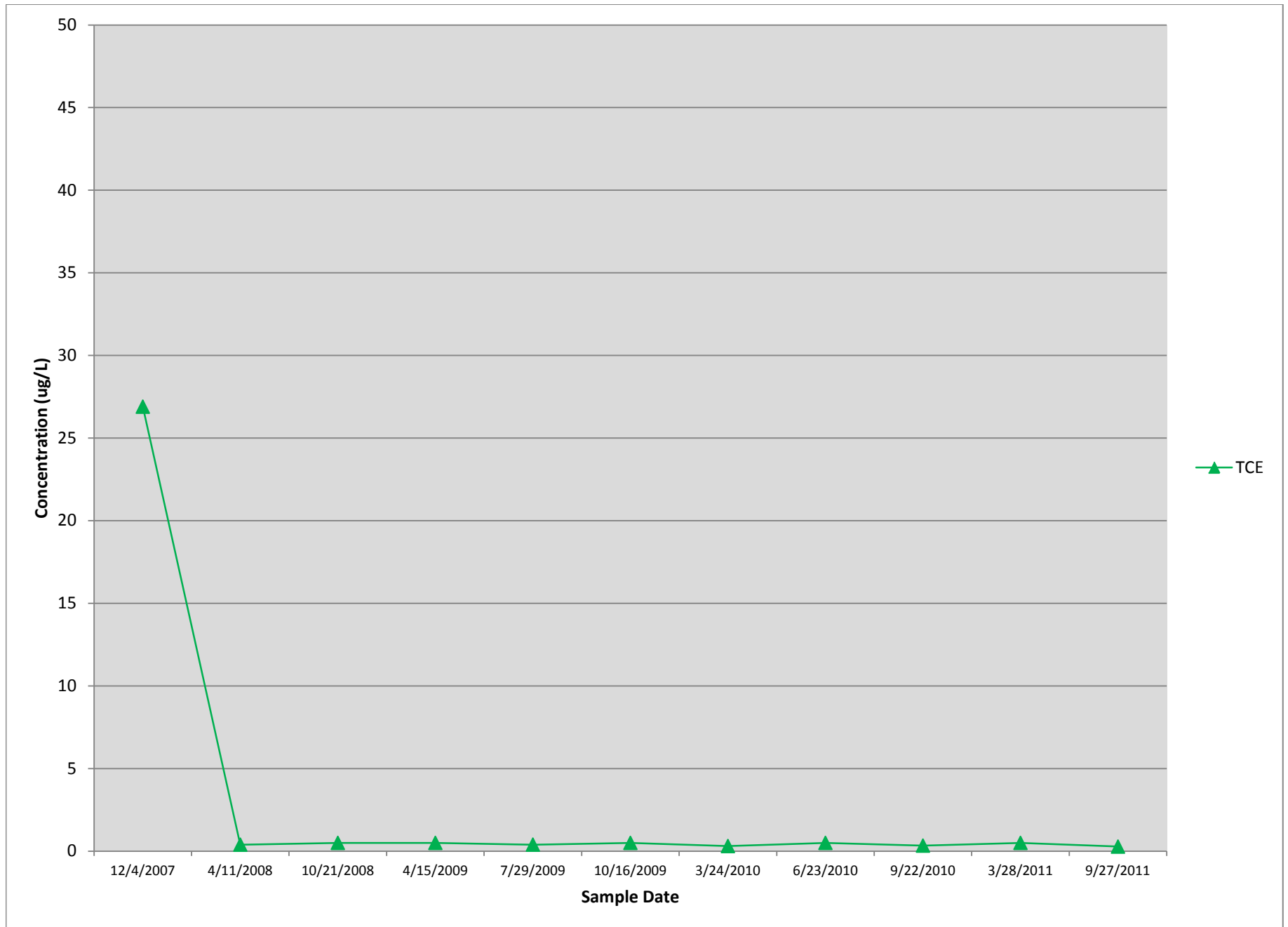
MW-166



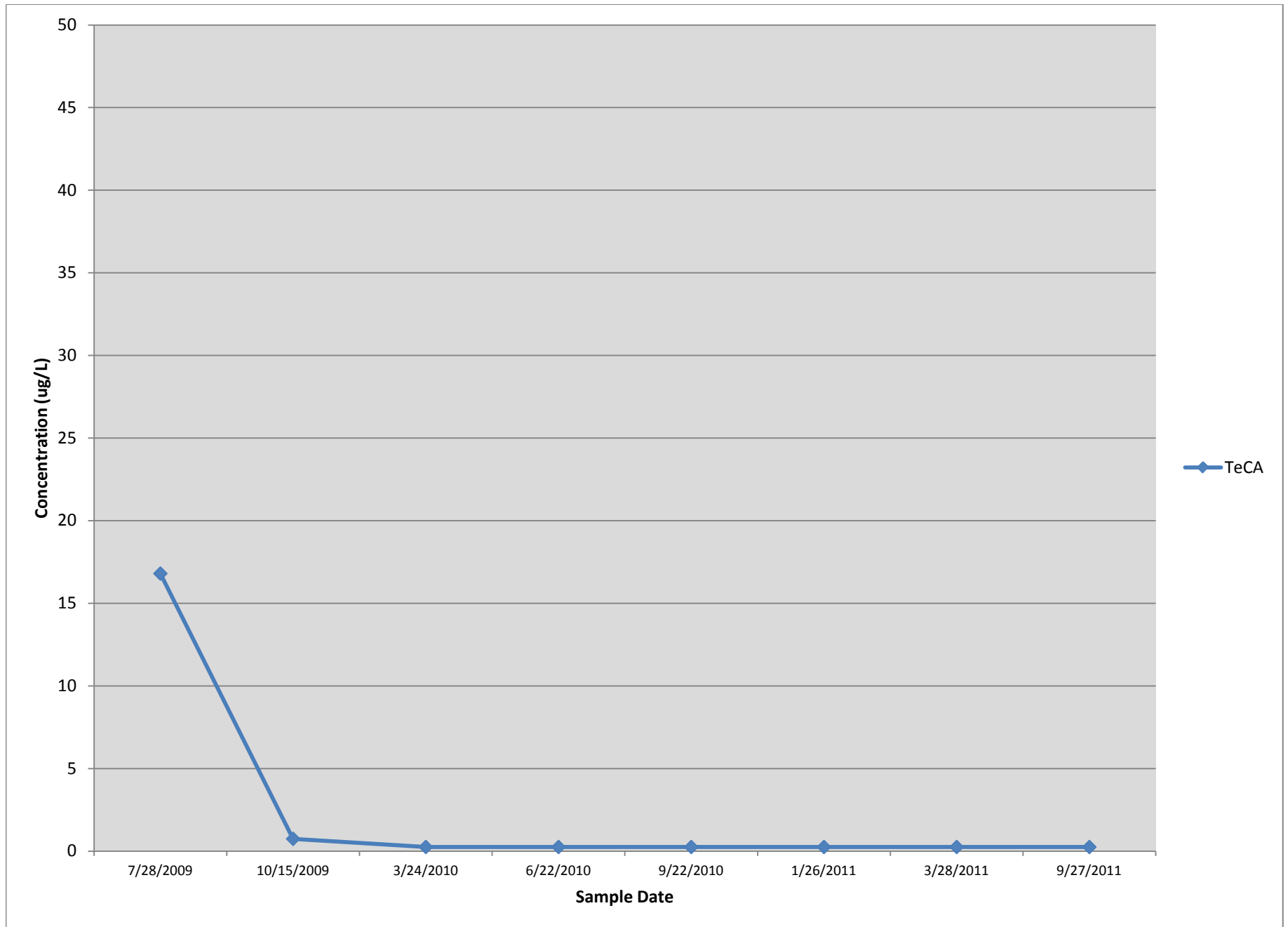
MW-166A



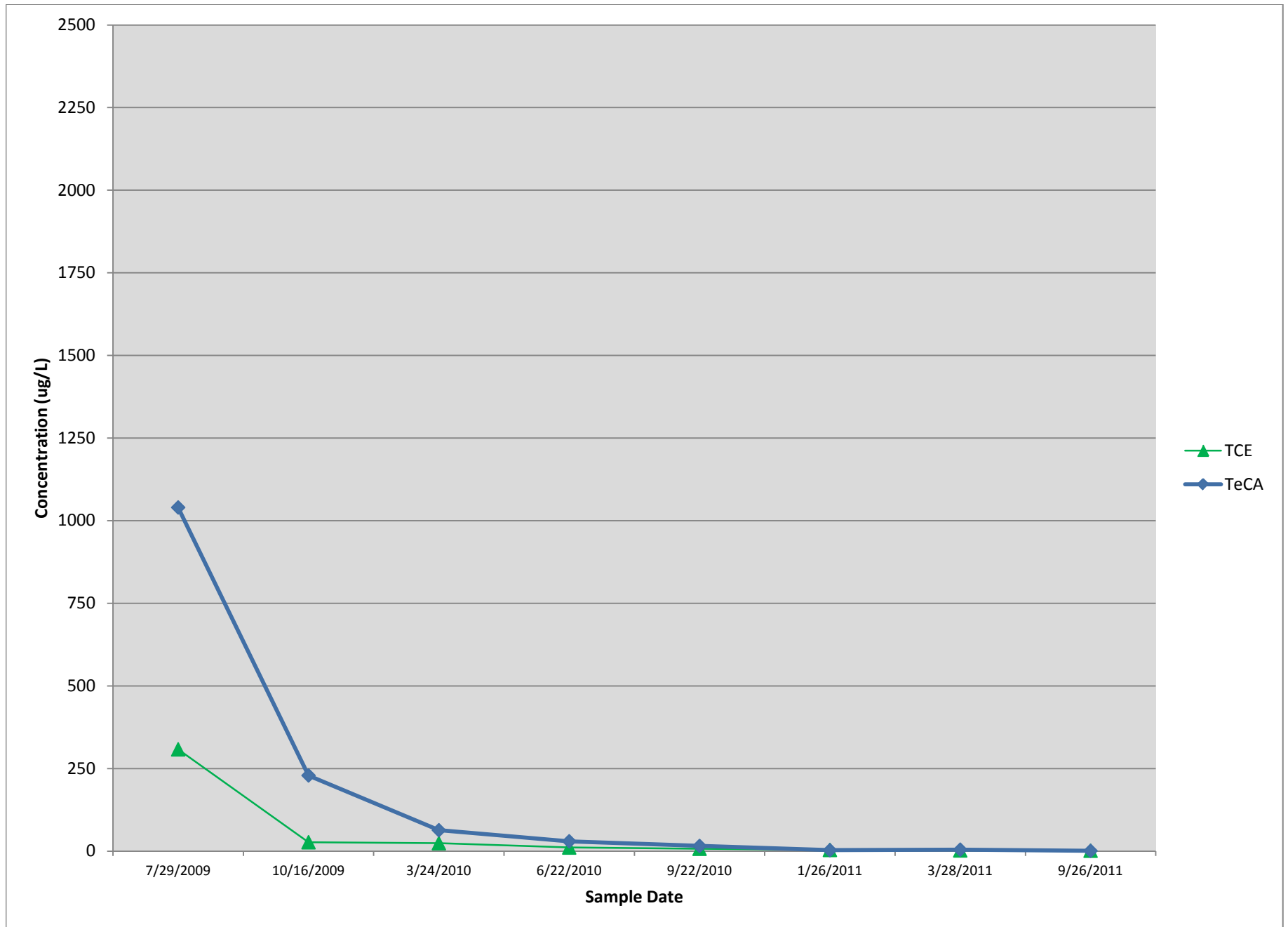
MW-232



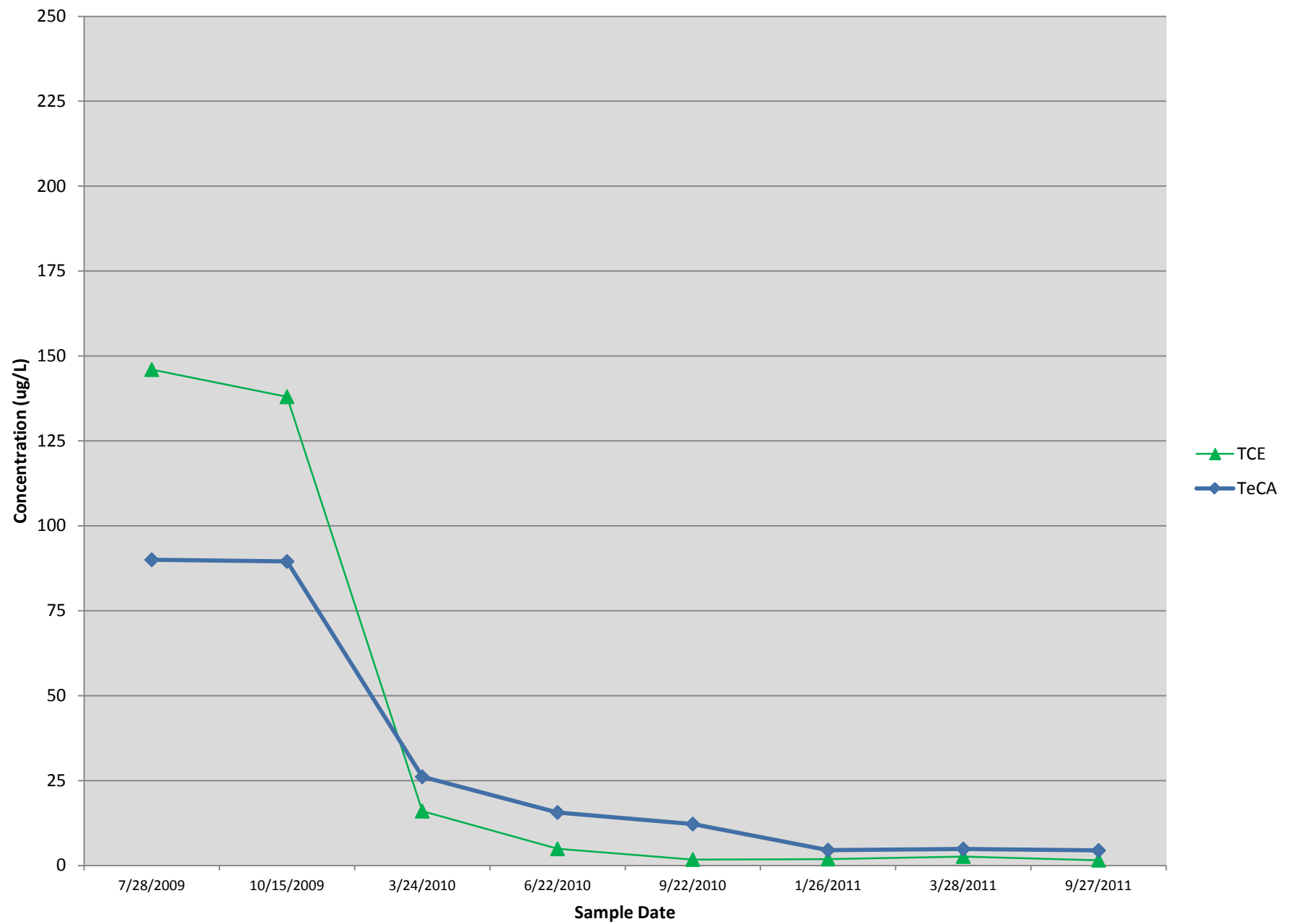
MW-241



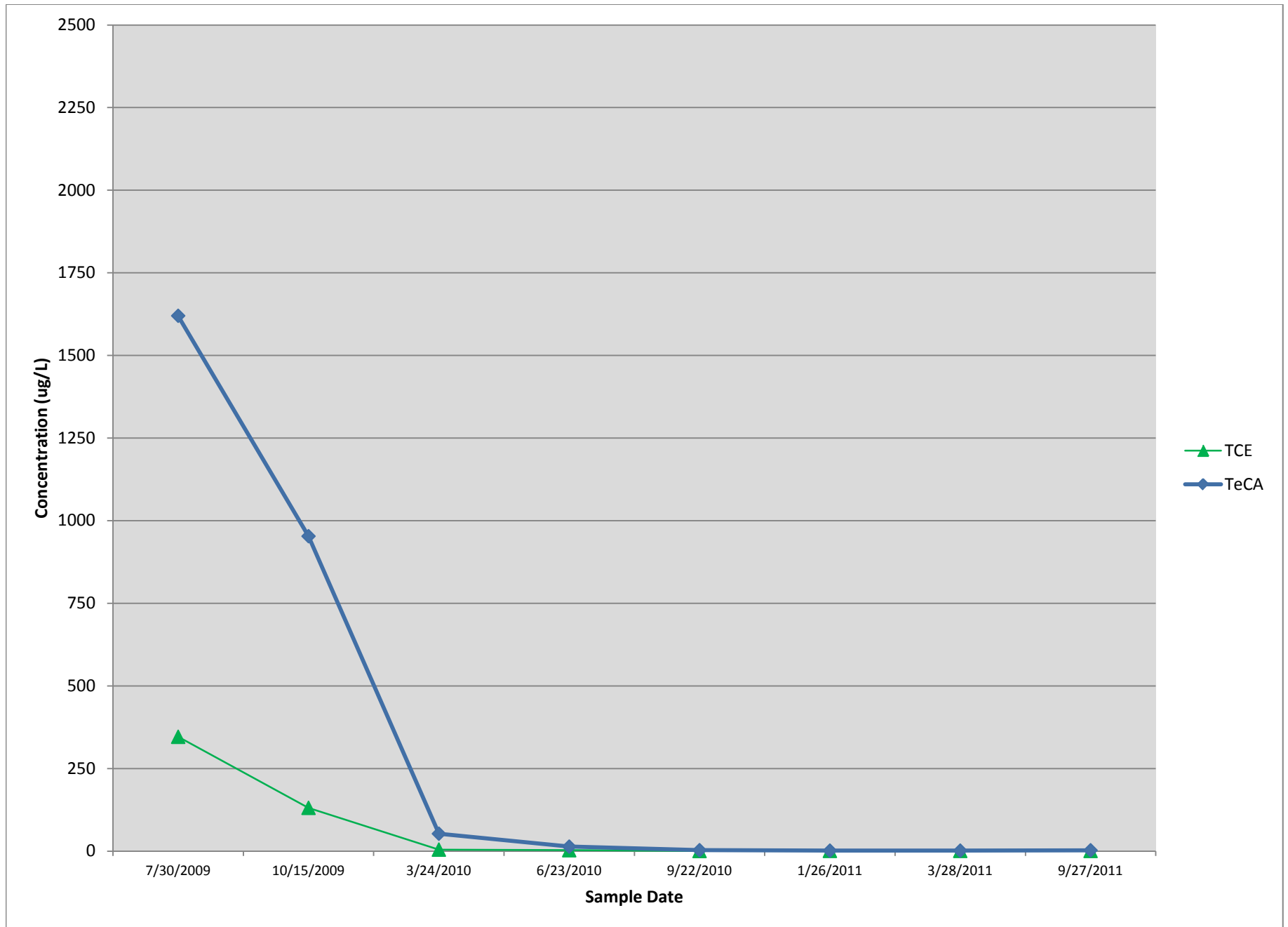
MW-242



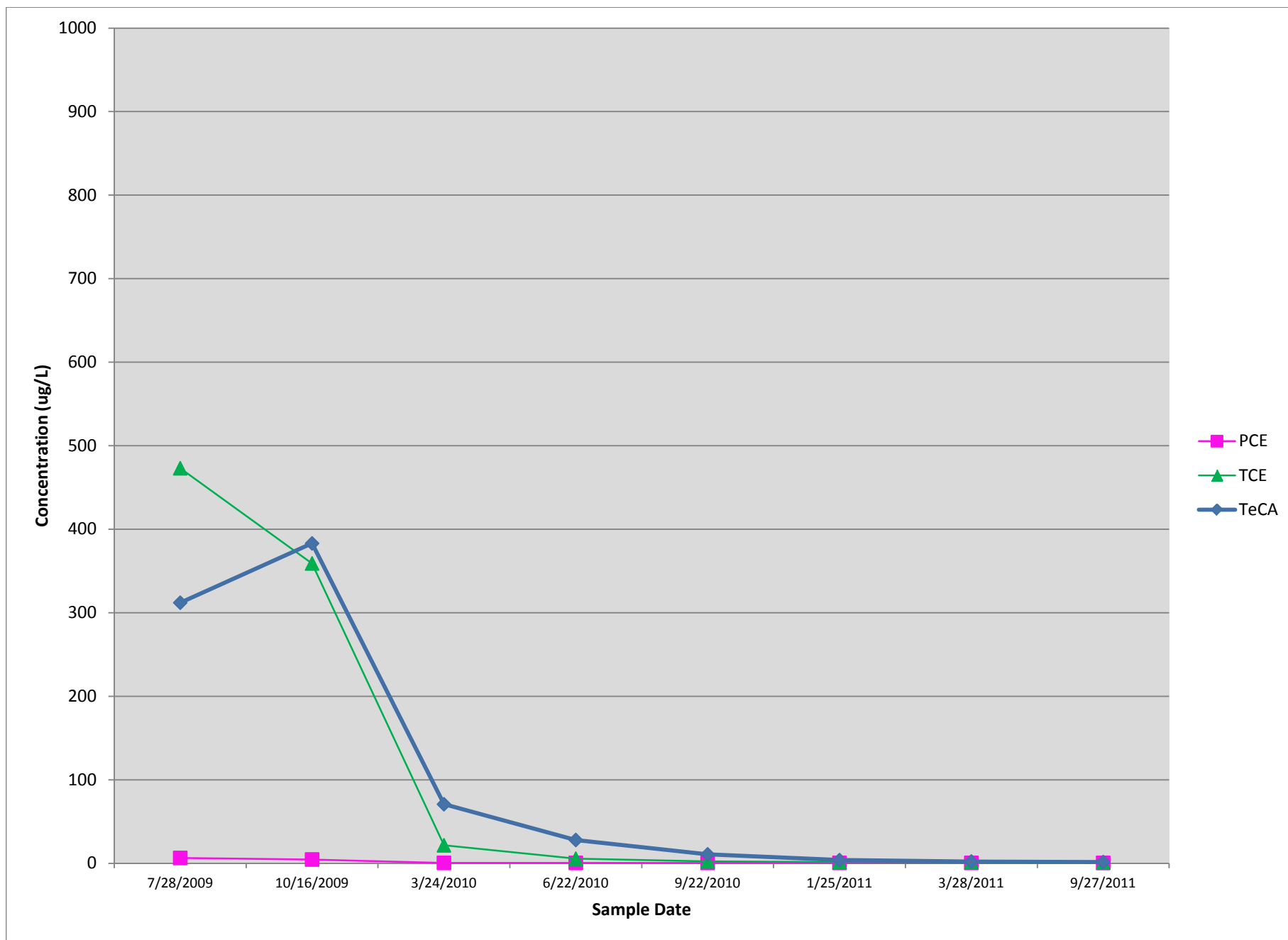
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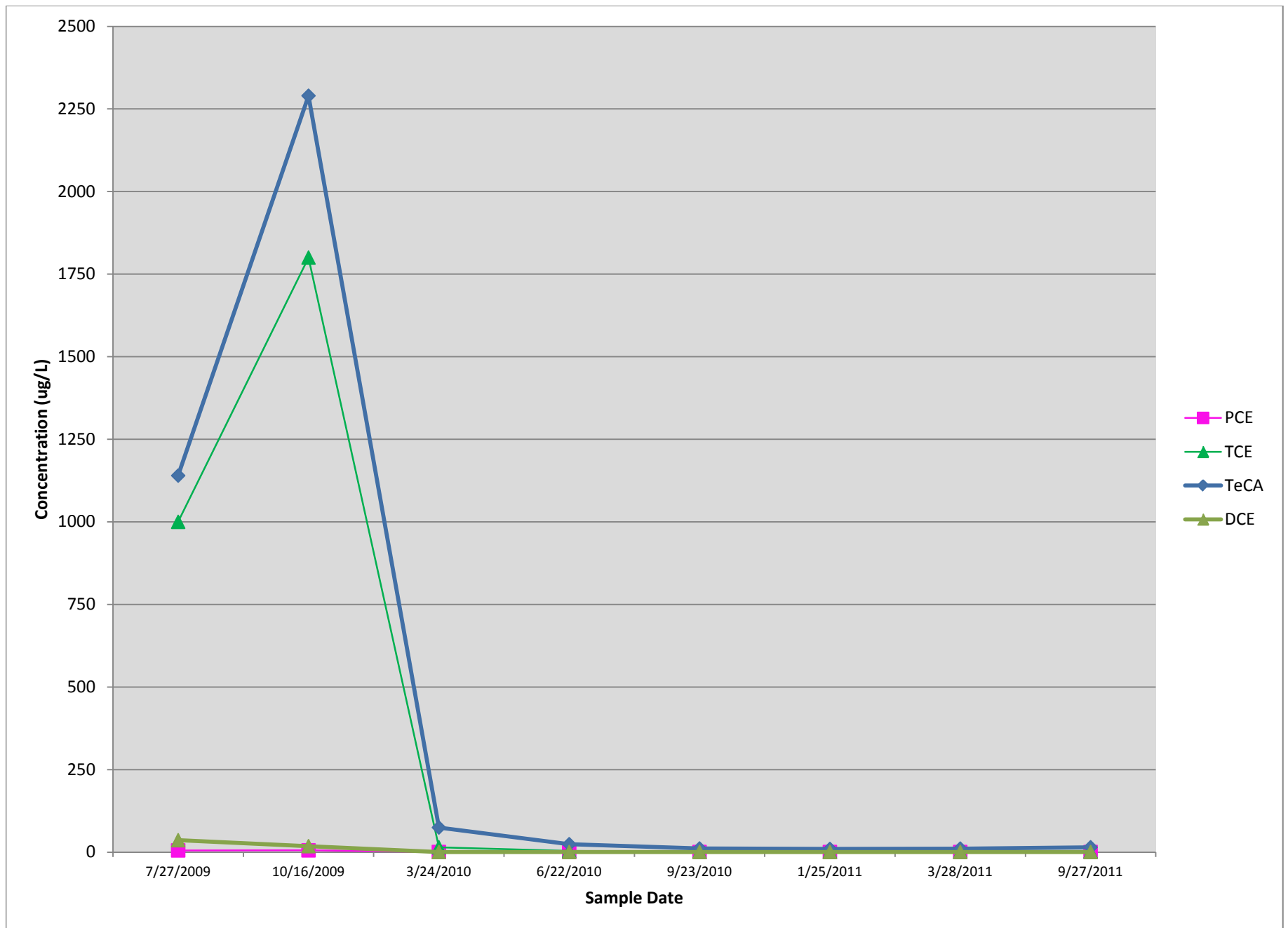
MW-244



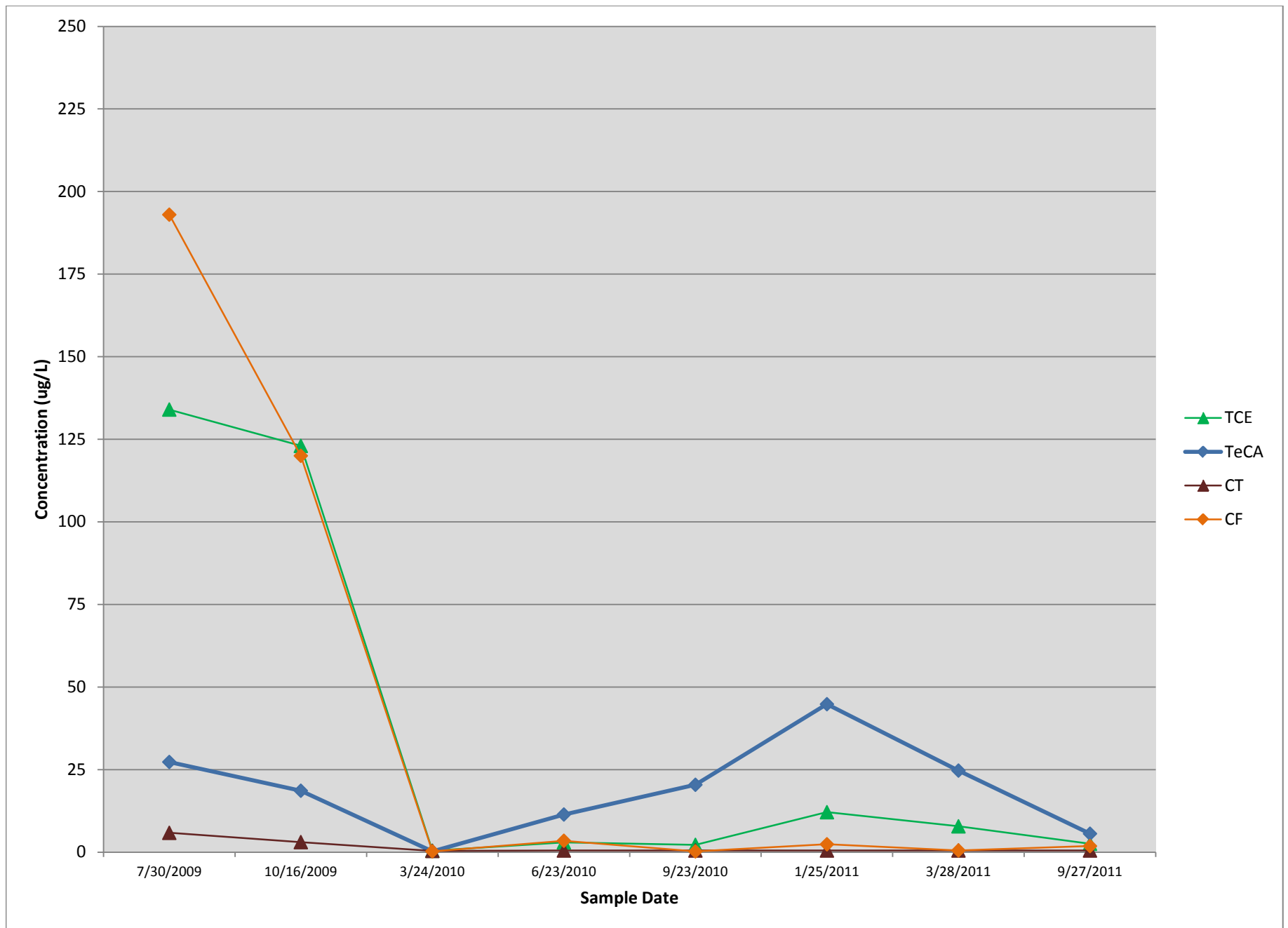
MW-245



MW-246



MW-247



MW-249

