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February 7, 2014

Ms. Jeannette DeBartolomeo
Maryland Department of Environment
Oil Control Program
1800 Washington Blvd. Suite 620
Baltimore, Maryland 21230-1719

AECOM Project: 60144763

Subject: Request for Supplemental Clarification
7-Eleven Store No. 22281
2400 Pleasantville Road
Fallston, Maryland
Facility ID No. 0006365
MDE Case No. 2005-0120HA

Dear Ms. DeBartolomeo,

On behalf of 7-Eleven, Inc. (7-Eleven), AECOM has prepared this comprehensive remedial evaluation and evaluation of the stability of the current groundwater contaminate plume at the above-referenced site in response to the Maryland Department of the Environment (MDE) Request for Supplemental Clarifications, dated December 10, 2013.

I. Evaluation of Previous Remedial Activities/Summary of Tank Removal Activities

- **Groundwater Pumping Test – July 12, 2006**

AECOM conducted a groundwater extraction test on July 12, 2006 for approximately nine hours to determine the feasibility of groundwater extraction or dual-phase extraction for groundwater remediation. Monitoring well MW-4A was utilized as the extraction well for the test due to its location within the area of greatest groundwater impact. A site map showing the location of MW-4A is included as **Figure 1**. A pneumatic submersible pump was inserted into MW-4A approximately 15 feet below the static groundwater and pumped at 0.45 gallons-per-minute (gpm) to 2 gpm. During the pumping test, drawdown was observed in several on-site wells, but the water column in the extraction well was noted to have been removed at a rate faster than the recharge, even at the lowest pumping rate. The results of the limited duration groundwater pumping test showed that groundwater extraction or dual-phase extraction would not be viable remedial options for this site. Results of the groundwater pumping test were submitted to MDE in correspondence dated September 15, 2006.

- **Soil Vapor Extraction Pilot Test – August 30, 2006**

AECOM conducted an 8-hour duration soil vapor extraction (SVE) pilot test on August 30, 2006 to determine the effectiveness of this technology under site specific conditions. The SVE pilot test consisted of the application of vacuum on monitoring well MW-4A, the well exhibiting the highest dissolved-phase petroleum hydrocarbon concentrations, and three vapor recovery points installed adjacent to the tank field (SVE-1, SVE-2 and SVE-3). The locations of MW-4A, SVE-1, SVE-2 and SVE-3 are shown on **Figure 2**. The SVE test was conducted using a 5-horsepower regenerative blower connected via a PVC piping manifold to each of the test points. The air discharged from this blower was directed through two 400-pound vapor phase granular activated carbon (GAC) units and subsequently discharged to the atmosphere. During the test monitoring point observations including vacuum (inches of H2O), percent oxygen, air flow and photo-ionization detector (PID) measurements were recorded.

PID readings were detected in SVE-1 and SVE-3 during the pilot test; therefore, mass removal amounts were calculated. The mass removal calculations ranged from 0.0012 to 0.0034 lbs/hour for SVE-1 to 0.009 to 0.017 lbs/hour for SVE-3. No mass removal calculations were completed for well MW-4A and SVE-2 because PID readings were not detected during the testing interval. Monitoring observations of the SVE pilot test are summarized in **Table 1**.

- **Extended SVE Test – November 27, 2006 to September 8, 2008**

From November 27, 2006 to September 8, 2008, AECOM conducted a long-term SVE test with the extraction from vapor recovery points SVE-1, SVE-2, SVE-3 and MW-4A (**Figure 2**). The extended SVE test was conducted using a 10-horsepower regenerative blower connected via a PVC piping manifold to each of the test points. The air discharged from this blower was directed through two 400-pound vapor phase GAC units and subsequently discharged to the atmosphere in compliance with associated air permit requirements. Operation and maintenance visits were conducted weekly/bi-weekly to ensure proper operation of the SVE system and to collect field data associated with extended pilot test.

Recovery points SVE-1 and SVE-3 showed the greatest concentration of vapor-phase petroleum hydrocarbons upon startup of the SVE extended pilot test and throughout the test monitoring period. Totals of approximately 4.3 lbs and 5.1 lbs of vapor-phase petroleum hydrocarbon were recovered from SVE-1 and SVE-3, respectively. As the source of the dissolved-phase petroleum hydrocarbon impact is suspected to be the result of a release of gasoline vapor within the UST field, these field screening results confirm that the application of vacuum to recovery points SVE-1 and SVE-3 provides capture through the area of the UST field. A total of approximately 1.5 lbs of vapor-phase petroleum hydrocarbon was recovered from SVE-2 during the extended SVE testing period. Monitoring well MW-4A, used as a soil vapor recovery point for this SVE extended pilot test, showed negligible recovery (total of approximately 0.7 lbs of vapor-phase petroleum hydrocarbon recovered) throughout the testing period. This confirms the findings of prior subsurface investigations that indicated the absence of adsorbed-phase petroleum hydrocarbons in the soil beyond the immediate vicinity of the UST field. **Table 2** represents a summary of the extended SVE test field monitoring data.

Due to the removal of the former tank field and associated subsurface soils on October 8, 2008, MDE granted approval to discontinue use of the SVE system. The porous nature of the subsurface material typically existing in the UST field area was beneficial in providing airflow through the unsaturated and vadose zone soils, and therefore SVE was a viable remedial technology while the tank field was in place. Since the removal of the contaminated soil from the former tank field, SVE is not a viable remedial technology for this site due to the limited permeability of the subsurface soils and lack of adsorbed hydrocarbons in the vadose zone.

- **Soil Characterization of New Tank Field - September 2 and September 12, 2008**

Soil characterization activities for the new tank field took place on September 2 and September 12, 2008. On September 2, 2008 AECOM installed 8 soil borings (SB-1 through SB-8) to characterize the soil in the future location of the tank field and determine if the soil could be used as on-site backfill. AECOM advanced eight (8) soil borings to a depth of 16 feet (finish depth of the new tank field) below ground surface (bgs). The soil boring locations are presented on **Figure 3**.

The borings were logged and screened using a PID, (readings ranged from 0.0 parts-per-million (ppm) to 43.3 ppm and dissipated quickly) and the intervals eliciting the highest PID readings were submitted to Phase Separation Science, Inc. (Phase). The samples were analyzed for total petroleum hydrocarbons-gasoline range organics (TPH-GRO) via EPA Method 8015B, and full volatile organic compounds (VOCs) plus oxygenates via EPA Method 8260B. The samples from all eight soil borings reported total BTEX (benzene, toluene, ethylbenzene, and xylenes), methyl tert-butyl ether (MTBE)**,** tertiary butyl alcohol (TBA) and TPH-GRO concentrations below the laboratory detection limits (BDL).

As required by the MDE, five bottom-hole soil samples were collected on September 12, 2008. One sample was collected from each corner of the new tank field excavation (TF-1 through TF-4) and one sample was collected in the middle of the excavation (TF-5) (**Figure 4**). The soil samples were submitted to Phase for analysis of TPH-GRO via EPA Method 8015B, and target compound list (TCL) volatiles plus oxygenates via EPA Method 8260B. The samples from all new tank field excavation reported BTEX, MTBE, TBA and TPH/GRO concentrations as BDL.

The analytical results of the new tank field soil boring and bottom-hole excavation soil samples are summarized in **Table 3**. The BDL analytical results for BTEX, MTBE, TBA and TPH/GRO indicate that subsurface soils in the area of the new tank field were not impacted by petroleum hydrocarbons.

- **UST Removal Activities – October 8, 2008**

On October 8, 2008, Mid-Atlantic Petroleum removed two 12,000-gallon steel gasoline USTs. The third 12,000-gallon steel tank was removed on October 9, 2008. The multi-product dispensers (MPD) and piping were cleaned in place prior to removal. Following the evacuation procedures, all product primary and secondary piping and vent lines were cleaned and removed.

AECOM collected five soil samples from below the former product lines and ten closure soil samples from the former tank field following the UST excavation. Two samples were collected from beneath the midline of each of the three USTs removed. Samples were collected from approximately two feet below the existing UST inverts. Four sidewall samples were also collected at depths corresponding with the middle of the tanks. Locations of the five soil samples from below the former product line are shown on **Figure 5** and the ten former tank field closure samples are shown on **Figure 6**.

The five product line samples and ten closure samples were analyzed for TPH-GRO via EPA Method 8015B, and TCL Volatiles plus oxygenates via EPA Method 8260B. The samples reported all BTEX, MTBE, and TPH-GRO concentrations below the laboratory detection limits. TBA was detected in two samples (TP-3 and TP-4). All soil concentration levels in the samples collected were below the MDE soil standard for the protection of groundwater set forth in the March 2008 MDE Cleanup Standards for Soil and Groundwater. Soil analytical results are included in **Table 3**. The analytical reports were previously submitted to the MDE on December 2, 2008 in the UST Closure Report.

- **Bioremediation Pilot Tests – June 12, 2006 to June 6, 2013**

To determine the feasibility of using bioremediation, AECOM conducted several bench-scale studies and field tests to evaluate the potential usefulness of bioremediation technologies. Results of the tests described below were reported to MDE in correspondence dated August 27, 2007, July 29, 2009 and August 23, 2013.

In-situ Biostimulation Field Test – June 12, 2006

A sample of naturally occurring biological material was collected from monitoring well MW-4A and a background sample was collected from monitoring well MW-3A on June 12, 2006. Locations of the monitoring wells are shown on **Figure 1**. These samples were collected in a Bio-Flow Sampler provided by Microbial Insights of Rockford, Tennessee according to sampling and preservation procedures provided with the sampler. The samples were then shipped to Microbial Insights for analysis of the presence and population of petroleum degrading bacteria including PM1, a known MTBE degrading bacteria. Following the collection of these samples, two oxygen release compound (ORC) socks were installed within the water column of MW-3A to provide a slow-release source of dissolved oxygen to attempt to stimulate subsurface biological bacteria in this area. These two ORC socks remained in monitoring well MW-3A for 28 days, during which the dissolved oxygen level increased from 7.48 mg/L (as determined from field monitoring on June 12, 2006) to 25.41 mg/L (as determined from field monitoring on July 10, 2006). A second sample was collected from monitoring well MW-3A on July 10, 2006 using a Bio-Flow Sampler for analysis by Microbial Insights in an identical manner as the sample collected on June 12. At that time, the ORC socks were removed from the monitoring well.

Evaluation of laboratory analytical results from both background and oxygen-stimulated conditions indicate a low potential for the natural degradation of petroleum hydrocarbons at this site under both conditions. Samples collected on June 12, 2006 indicate equivalent populations of naturally occurring bacteria within the area of elevated levels of petroleum hydrocarbon impact (MW-4A) and in the area of lesser petroleum hydrocarbon impact (MW-3A). Further, the analytical results of the sample collected from MW-3A under oxygen-stimulated conditions on July 10, 2006 were compared with the analytical results obtained from monitoring well MW-3A prior to the addition of the ORC socks. The comparison indicated that no significant change in bacteria population was realized as a result of the increase of the dissolved oxygen concentration, commonly a limiting factor in the biodegradation of petroleum hydrocarbons. As a result, it is anticipated that the stimulation of naturally occurring petroleum hydrocarbon degrading bacteria through the addition of dissolved oxygen only, may not be a viable option for efficient remediation at this site.

Bench Scale Test – July 2006

Groundwater samples were collected from monitoring well MW-4A (**Figure 1**) and sent to Enzyme Technologies, Inc. (EnzymeTech) of Portland, Oregon to determine if the addition of Petrozyme™ custom blend nutrients (CBN™) increased the aerobic biodegradation of MTBE. Information regarding Petrozyme™ CBN™ is included as **Attachment A**. Three conditions were tested:

1. Live control sample;
2. Augmentation of a sample with the Petrozyme™ products; and
3. Killed control sample with addition of potassium hydroxide to eliminate microbial activity.

Based on an increase in the hydrocarbon degrading bacteria plate count concentrations in the bio-augmented sample to approximately 10 times the initial concentration within the first 10 days and 99% reduction of MTBE within 240 hours in the bio-augmented sample, AECOM has conducted three field pilot tests of the technology, described below.

Initial Pilot Test – October 30, 2008 to April 30, 2009

A six month bio-augmentation pilot test was conducted from October 30, 2008 to April 30, 2009 using the Petrozyme™ technology to augment and stimulate the naturally-occurring bacterial population of hydrocarbon-degrading bacteria in the areas of residual dissolved-phase petroleum hydrocarbons detected in monitoring well MW-4A. A shallow injection trench (Trench A) was installed upgradient of monitoring well MW-4A on October 14-15, 2008 to approximately 10 feet bgs and backfilled with pea gravel to approximately five feet bgs to enhance permeability and allow for the injection of a combination of enzymes and dissolved oxygen. The trench location is shown on **Figure 1**. Site visits were conducted twice-monthly, with the first visit including the injection of Petrozyme™ products mixed with approximately 250 gallons of oxygenated water injected into each trench, and the second visit of the month including the injection of approximately 250 gallons of oxygenated water only into each trench to provide a sufficient mass of oxygen to stimulate the subsurface biologic activity.

Laboratory data indicated a strong relationship between groundwater nutrient levels (mainly nitrate and orthophosphate) and reduction of dissolved-phase petroleum hydrocarbon concentrations in the shallow water-bearing zone in the area of monitoring well MW-4A. Over the course of the six-month bio-augmentation pilot study, an overall reduction of petroleum-related hydrocarbon concentrations followed increases in nutrient levels stimulated by the injection of Petrozyme™ products into the shallow aquifer. Graphical representation of MTBE vs. Nitrate and Orthophosphate concentrations in monitoring wells MW-4A, HW-3 and MW-6 are included as **Attachment B**. The graphs show the correlation between increasing nutrient concentrations and decreasing MTBE concentrations. From October 30, 2008 to April 30, 2009, MTBE concentrations in monitoring wells MW-4A and HW-3 were reduced by approximately 50%. In addition, monitoring well MW-6, the furthest down gradient well from the bio-augmentation delivery trenches, showed a delayed increase in nitrate concentrations and delayed decrease in MTBE concentrations. A summary of the groundwater data including nutrient and DO concentrations is included

as **Table 4**. A complete summary of monitoring well groundwater laboratory data is provided in **Table 5**. Results of the pilot test were submitted to MDE in correspondence dated July 29, 2009.

Second Pilot Test – April 15, 2010 to June 29, 2011

A second bio-augmentation pilot test was conducted from April 15, 2010 to June 29, 2011. Installation of ISOC system components for the bio-augmentation system was completed at the start of April 2010. A 320-gallon poly storage tank, with a single valve at the bottom, stored the biological stimulator Petrozyme™, which was used to augment and stimulate the naturally-occurring population of hydrocarbon-degrading bacteria in the areas of residual dissolved-phase petroleum hydrocarbons detected in monitoring well MW-4A. Injection wells during this pilot test included HW-3, MW-4A, MW-9, MW-10 and MW-11, MW-12, and MW-13 (**Figure 1**).

From April 2010 to June 2011, MTBE concentrations decreased by 27%, 11%, and 76% in wells MW-4A, MW-9, and MW-10, respectively. Well MW-4A decreased from 1,500 micrograms-per-liter (µg/L) to 1,100 µg/L; well MW-9 decreased from 1,800 µg/L to 1,600 µg/L; and, well MW-10 decreased from 17,000 to 4,100 µg/L. The MTBE concentration in well MW-11 has also decreased by 64% since its installation in December 2010, with concentrations decreasing from 11,000 µg/L to 4,000 µg/L. Current MTBE concentrations in wells MW-12 and MW-13 (installed in December 2010) remained fairly consistent with starting MTBE concentrations. Graphs showing MTBE, DO, nitrate and orthophosphate concentrations throughout the second pilot test period are included as **Attachment C**. The nutrient analytical data and DO data are summarized in **Table 6** and **Table 7**, respectively. A full summary of monitoring well groundwater laboratory data is provided in **Table 5**.

Third Pilot Test – September 29, 2012 to June 6, 2013

A nine-month bio-augmentation pilot test began on September 12, 2012 and was concluded on June 6, 2013. On August 20, 2012, AECOM and Odyssey Environmental Services, Inc. (Odyssey) installed three bio-injection trenches (B-1, B-2 and C), shown on **Figure 1**. As determined from the historical sampling events, MTBE has consistently been detected above the MDE action level of 20 µg/L in shallow monitoring wells MW-4A, MW-6, MW-9, MW-10, MW-11, MW-12, MW-13, and HW-3. The objective of this revised bio-augmentation pilot test was to reduce the concentration of petroleum compounds including MTBE in the shallow groundwater in the vicinity of monitoring wells HW-3, MW-6, MW-9, MW-11, and MW-13 by injecting Petrozyme™ CBN™ mixed with dissolved oxygen into nearby trenches B-1, B-2 and C. Biweekly visits to the site were performed to facilitate the addition of augmented groundwater to the pilot test treatment area. Subsurface conditions within the pilot test area were monitored throughout the nine-month testing period.

Laboratory data indicated a strong relationship between groundwater DO levels and nutrient levels (mainly nitrate and orthophosphate) and reduction of dissolved-phase petroleum hydrocarbon concentrations in the shallow water-bearing zone in the areas of monitoring wells HW-3, MW-6, MW-9, MW-11, and MW-13. Over the course of the nine-month bio-augmentation pilot study, an overall reduction of petroleum-related hydrocarbon concentrations followed increases in nutrient levels stimulated by the injection of Petrozyme™ products into the shallow aquifer. Graphs illustrating the decline in MTBE concentrations with relation to nitrate levels and to orthophosphate levels are included as **Attachment D** and **Attachment E**, respectively. In addition, graphs illustrating the decline in MTBE concentrations with relation to the DO levels since the beginning of the bio-augmentation can be seen in **Attachment F**. A summary of groundwater laboratory data of nitrate, nitrite, and orthophosphate is provided in **Table 8** and a summary of groundwater DO levels are provided in **Table 9**. From September 12, 2012 to June 6, 2013, MTBE concentrations in monitoring wells MW-6 and MW-10 were reduced by approximately 50%. MTBE concentrations in were reduced by 20% in MW-9, 58% in MW-11, 14% in MW-13 and approximately 67% in HW-3. Of the wells in the near vicinity, HW-3 rebounded to 1,100 µg/L in June 2013 after dropping to 500 µg/L in the March 2013 sample. A summary of monitoring well groundwater laboratory data is provided in **Table 5**.

Summary of Bio-Augmentation Pilot Tests

Based on the results of the bio-augmentation bench scale test, bio-augmentation appears to be the most viable means of reducing MTBE in the groundwater, and as previously discussed, subsequent pilot tests all resulted in decreased concentrations of MTBE. Time-series data graphs of all monitoring wells illustrating the overall decline in MTBE and benzene concentrations are included as **Attachment G**.

II. "Seven Risk Factor" Evaluation

As outlined in the Maryland Environmental Assessment Technology for Leaking Underground Storage Tanks (February 2003), AECOM has evaluated the site for the "Seven Risk Factors". The following discusses these risk factors as they pertain to the site:

1) *Liquid Phase Hydrocarbons* – No liquid-phase hydrocarbons (LPH) have ever been detected in any of the monitoring wells on or off-site.

2) *Current and Future Use of Impacted Groundwater* – Current and future land usage in the vicinity (½-mile radius) of the site is a combination of commercial and residential properties. Potable water for the 7-Eleven facility and surrounding properties is obtained from individual supply wells. The site potable supply well is located near the southern property boundary, upgradient of the source area. No potable wells are currently known to be impacted by MTBE above the 20 µg/L standard.

3) *Migration of Contamination* – From delineation activities and current groundwater sampling events, MTBE migration in the shallow water table is shown to be moving in a northern direction while the prevailing groundwater gradient is sloping to the northwest. Migration of MTBE in the shallow groundwater may be controlled by relict foliation associated with the underlying parent bedrock. A total of 18 monitoring wells are sampled quarterly as part of MDE-directed activities for this site. MTBE and benzene are mapped as indicator compounds to represent the distribution of dissolved-phase hydrocarbon constituents in groundwater. **Figures 7, 8, 9** and **10** present dissolved-phase MTBE isoconcentration maps prepared from shallow groundwater data collected on September 25, 2007; September 27, 2009; September 22, 2011; and September 12, 2013. **Figures 11, 12, 13** and **14** present dissolved-phase benzene isoconcentration maps prepared from shallow groundwater data collected on September 25, 2007; September 27, 2009; September 22, 2011; and September 12, 2013. The MTBE and benzene isoconcentration maps indicate that plume in the shallow groundwater has decreased substantially, but is migrating slowly towards the north. The wells of greatest concern are the five potables wells on the RT 152, LLC Plat, located on the north side of MD Route 152 from the site, shown on **Figure 15**. The nearest off-site potable well within the MTBE migration path (Lot 5 well) is located approximately 170 feet from off-site monitoring well MW-8B. The other four potable wells on the RT 152, LLC Plat are more than 400 feet from MW-8B. Based on the slow movement of the plume (discussed in section III of this report) and the decreasing MTBE concentrations, AECOM does not expect MTBE concentration of 20 µg/L or greater to impact the Lot 5 well or any of the other potable wells on the RT 152, LLC plat.

   Historic groundwater sampling collected from deep monitoring wells (MW-1B, MW-3B, MW-4B, and MW-8B) installed for the objective of vertical delineation have identified MTBE at levels below the MDE guideline with the exception of a detection of 21 µg/L in MW-4B in December 2006 and MTBE concentrations that have ranged from 12 µg/L to 100 µg/L in the deep monitoring well MW-8B. A vertical connection between the shallow and deep zones exists, however, concentration levels in the deeper monitoring wells are currently near or below MDE guidelines. Historic groundwater analytical results of the monitoring wells are summarized in **Table 5**. The laboratory analytical reports and chain-of-custody documentation can be referenced in the corresponding Quarterly Monitoring Reports submitted to the MDE.

4) *Human Exposure* – There is a potential for human exposure through inhalation, ingestion or dermal contact of petroleum impacted materials on the 7-Eleven site from potable wells located within close proximity to the 7-Eleven site.

5) *Environmental Ecological Exposure* – No surface water bodies are located on the site; however, a storm water retention basin is located on the northern portion of the site. As shown in previous investigations, described in section I of this report, shallow subsurface soils have not been impacted by petroleum hydrocarbons; therefore, it is unlikely for onsite surface runoff entering the storm water retention basin to be impacted.

6) *Impact to Utilities and Other Buried Services* – There are no known underground utilities on and the 7-Eleven site. Due to the low infrastructure of the area, businesses and residencies near the site are on potable water and septic. Electric and telephone lines to the site are above ground.

7) *Other Sensitive Receptors* – No other sensitive receptors (surface water, historic structures, subways) were observed adjacent to or in the immediate vicinity of the subject property.

III. Stability of the Current Groundwater Dissolved-Phase Hydrocarbon Plume

MTBE isoconcentraion maps are used to represent the size and distribution of the dissolved-phase hydrocarbon plume in groundwater. **Figures 7, 8, 9** and **10** present dissolved-phase MTBE isoconcentration maps prepared from shallow groundwater data collected on September 25, 2007; September 27, 2009; September 22, 2011; and September 12, 2013. The figures show that the size of the plume has remained stable; however, over the past 6 years the center of the plume has migrated from the vicinity of MW-4A to the vicinity of MW-9, a distance of approximately 36 feet. The MTBE isoconcentration maps show the concentration and migration changes over the past 6 years. From September 2007 to September 2009 (**Figures 7 and 8**), the center of the plume migrated from the vicinity of MW-4A to between MW-4a and HW-3 and decreased in MTBE concentration by 40% from a concentration of 11,000 µg/L (MW-4A) to 6,600 µg/L (MW-4A and HW-3). From September 2009 to September 2011 (**Figures 8 and 9**), the plume center remained in approximately the same location between MW-4A and HW-3 and decreased by 50% from a MTBE concentration of 6,600 µg/L (MW-4A and HW-3) to 3,330 µg/L (MW-11). The center of the plume retracted to the vicinity of MW-9 from September 2011 to September 2013 (**Figures 9 and 10**) and continued to decrease by approximately 30% from a MTBE concentration of 3,300 µg/L (MW-11) to 2,300 µg/L (MW-9). The retraction of the plume between September 2011 and September 2013 is likely the result of bio-augmentation injections dramatically reducing MTBE concentrations in the vicinity of HW-3 and MW-11. An additional nine-month bio-augmentation period would continue to reduce MTBE concentrations and prevent the plume center from migrating towards the north.

- **Plume Decay Rate**

The center of the plume has decreased from a MTBE concentration of 11,000 µg/L in September 2007(MW-4A) to a MTBE concentration of 2,300 µg/L in September 2013 (MW-9) (**Figures 7 and 10**). This decrease in MTBE concentration over a period of 6 years has an exponential decay rate of 26% and a degradation rate of 1,450 µg/L per year. Calculations based on an a decay rate of 26% indicate that it will take approximately 18 years for the center of the plume to decrease from 2,300 µg/L to a concentration of 20 µg/L. Based on the previously calculated travel rate of 6 ft per year, the shallow groundwater plume could move approximately 100 ft by the time all MTBE concentrations within the shallow groundwater decrease to 20 µg/L or less. The nearest off-site potable well within the MTBE migration path (Lot 5 well on the Rt 152, LLC Plat) is located approximately 150 feet from the current 10 µg/L MTBE concentration contour of the plume; therefore, AECOM predicts that MTBE will not impact the Lot 5 well or any of the other potable wells on the Rt 152, LLC plat at concentrations of 20 µg/L or greater if current groundwater conditions remain stable.

IV. Remedial Goals

The goal of this remediation program is to decrease the dissolved-phase petroleum hydrocarbon impact on-site and to achieve the three Oil Control Program (OCP) objectives as outlined in the Maryland Environmental Assessment Technology for Leaking Underground Storage Tanks including:

- Removal of the MDE Seven Risk Factors posed by the initial groundwater impact,
- Prevention of impact migration, and
- Demonstration of an asymptotic trend of dissolved-phase petroleum hydrocarbons concentrations in site monitoring wells.

In order to meet these goals, AECOM has set a MTBE concentration target of 150 µg/L or less for all on-site monitoring wells and a MTBE concentration target of 20 µg/L or less in all off-site monitoring wells. Based on the decay rate of 26%, calculated in section III, it is estimated that all MTBE concentrations in on-site wells will decrease to150 µg/L in approximately 10.5 years, based on historical remedial activities at the site.

If you have any questions, please contact the undersigned at (240) 565-6501.

Yours sincerely,

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cc: Harford County Health Department
7-Eleven Project File

ATTACHMENTS:

FIGURES

FIGURE 1 – Site Plan

FIGURE 2 – SVE Layout Map

FIGURE 3 – Current Tank Field Soil Boring/Sample Locations – September 2, 2008

FIGURE 4 – Current Tank Field Bottom-Hole Soil Sample Locations – September 9, 2008

FIGURE 5 – Former Product Line Soil Sample Locations –September 8 & 12 and October 9, 2008

FIGURE 6 – Former Tank Field Sample Locations – October 8, 2008

FIGURE 7 – Dissolved-Phase MTBE Isoconcentration Map – September 25, 2007

FIGURE 8 – Dissolved-Phase MTBE Isoconcentration Map – September 27, 2009

FIGURE 9 – Dissolved-Phase MTBE Isoconcentration Map – September 22, 2011

FIGURE 10 – Dissolved-Phase MTBE Isoconcentration Map – September 12, 2013

FIGURE 11 – Dissolved-Phase Benzene Isoconcentration Map – September 25, 2007

FIGURE 12 – Dissolved-Phase Benzene Isoconcentration Map – September 27, 2009

FIGURE 13 – Dissolved-Phase Benzene Isoconcentration Map – September 22, 2011

FIGURE 14 – Dissolved-Phase Benzene Isoconcentration Map – September 12, 2013

TABLES

TABLE 1 – SVE Pilot Test Observations

TABLE 2 – Summary of Extended SVE Test Field Monitoring Data

TABLE 3 – Soil Analytical Results

TABLE 4 – Initial Pilot Test Monitoring Summary

TABLE 5 – Monitoring Well Groundwater Analytical Results

TABLE 6 – Second Pilot Test Nutrient Analytical Results

TABLE 7 - Second Pilot Test Dissolved Oxygen Concentrations

TABLE 8 – Third Pilot Test Nutrient Analytical Results

TABLE 9 - Third Pilot Test Dissolved Oxygen Concentrations

ATTACHMENTS

ATTACHMENT A – Petrozyme™ CBN™

ATTACHMENT B – Initial Pilot Test MTBE and Nutrient Concentration Graphs

ATTACHMENT C – Second Pilot Test MTBE, DO, Nitrate and Orthophosphate Concentration Graphs

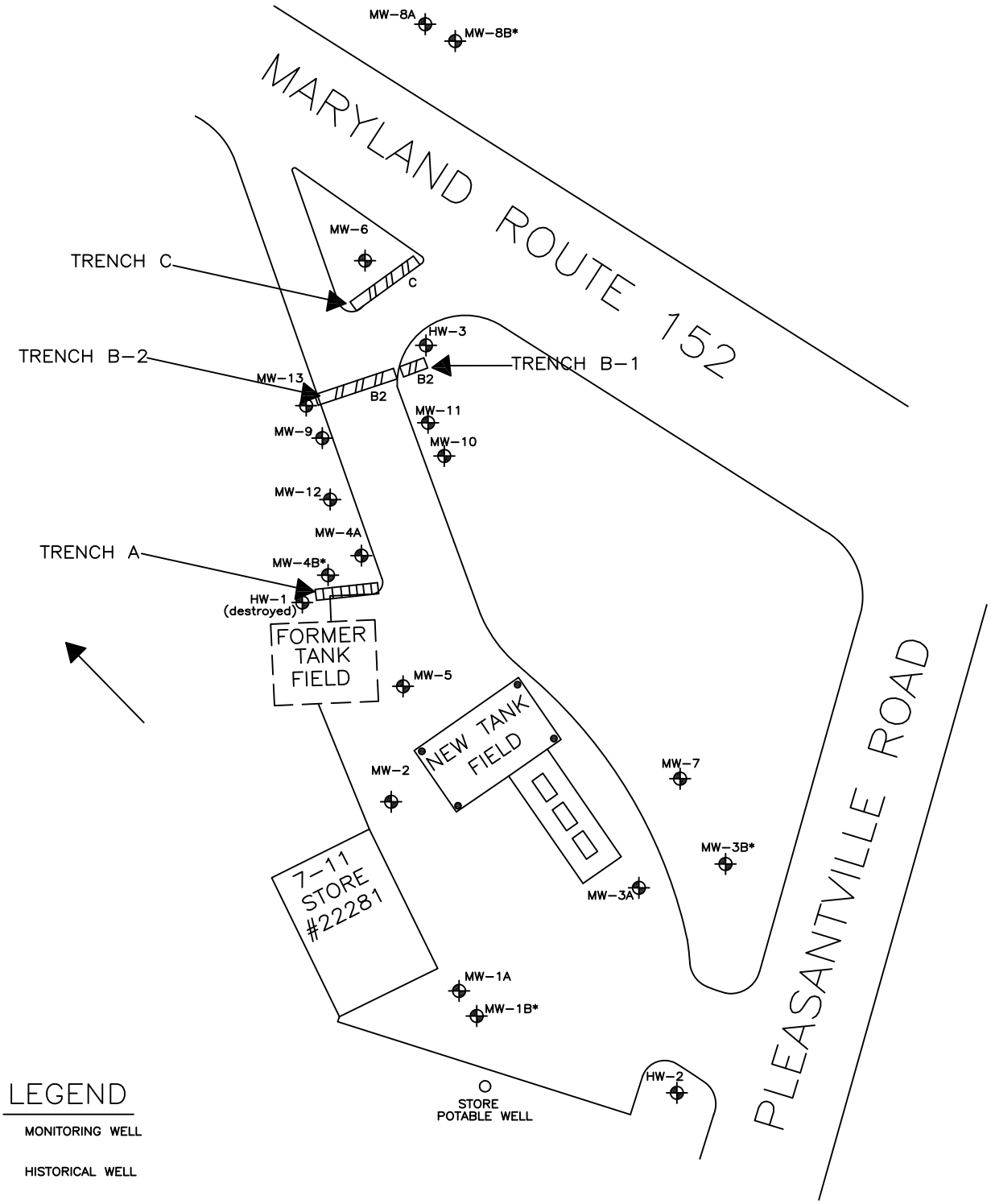
ATTACHMENT D – Third Pilot Test MTBE Concentrations vs. Nitrate Levels Graphs

ATTACHMENT E – Third Pilot Test MTBE Concentrations vs. Orthophosphate Levels Graphs

ATTACHMENT F – Third Pilot Test MTBE Concentration vs. Dissolved Oxygen Graphs

ATTACHMENT G – Dissolved MTBE and Benzene Concentration Graphs

FIGURES



LEGEND

- MONITORING WELL
- HW HISTORICAL WELL
- TANK FIELD WELL
- DEEP WELL (NOT INCLUDED IN CONTOURS)
- GROUNDWATER FLOW DIRECTION
- TRENCH INSTALLED AUGUST 20, 2012
- EXISTING TRENCH

N

APPROX. SCALE: FT

40 0 40

SITE PLAN

FEBRUARY 2014

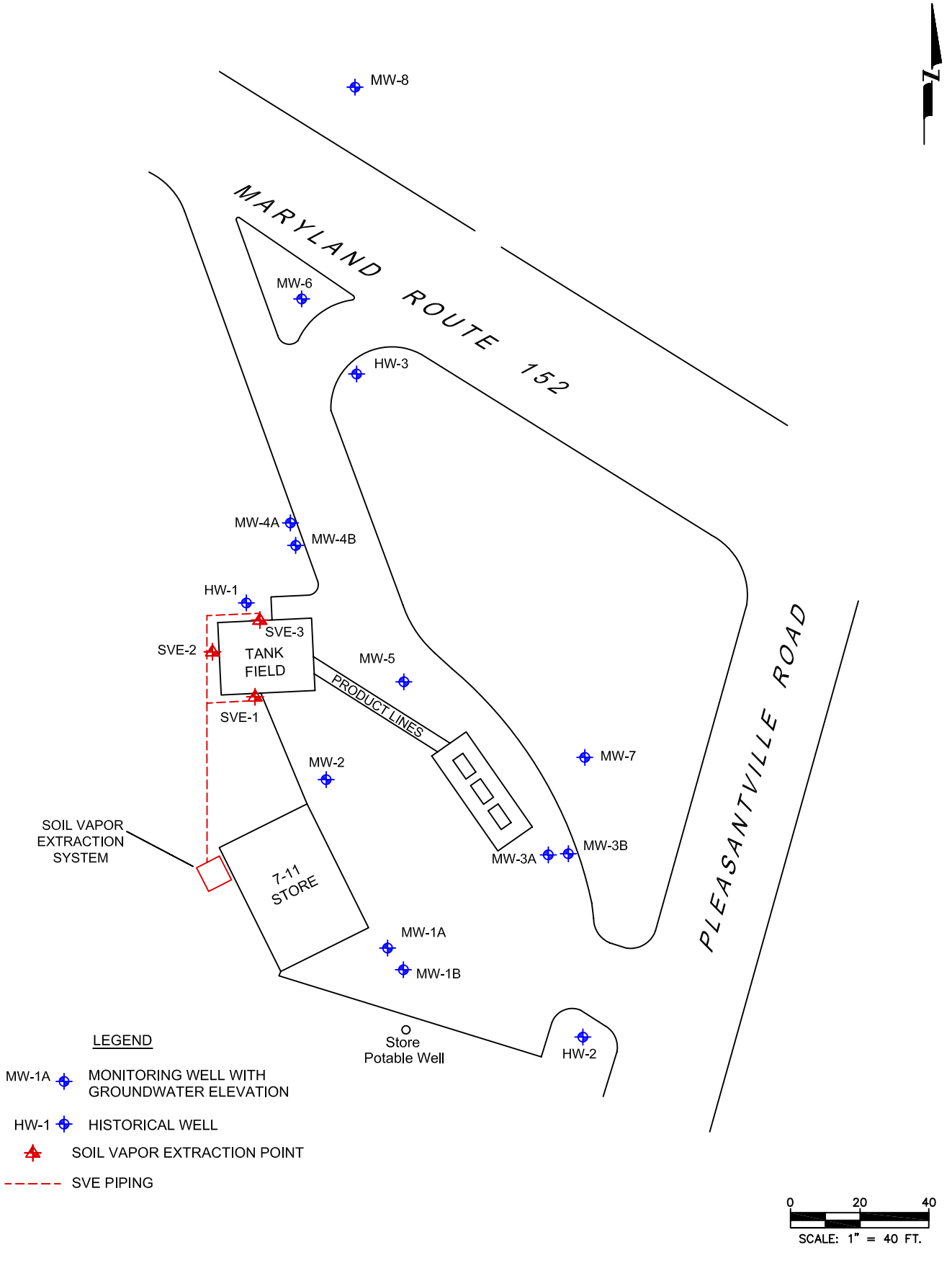
Drawn By: JLT | Reviewed By: SD

7-ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 1

AECOM



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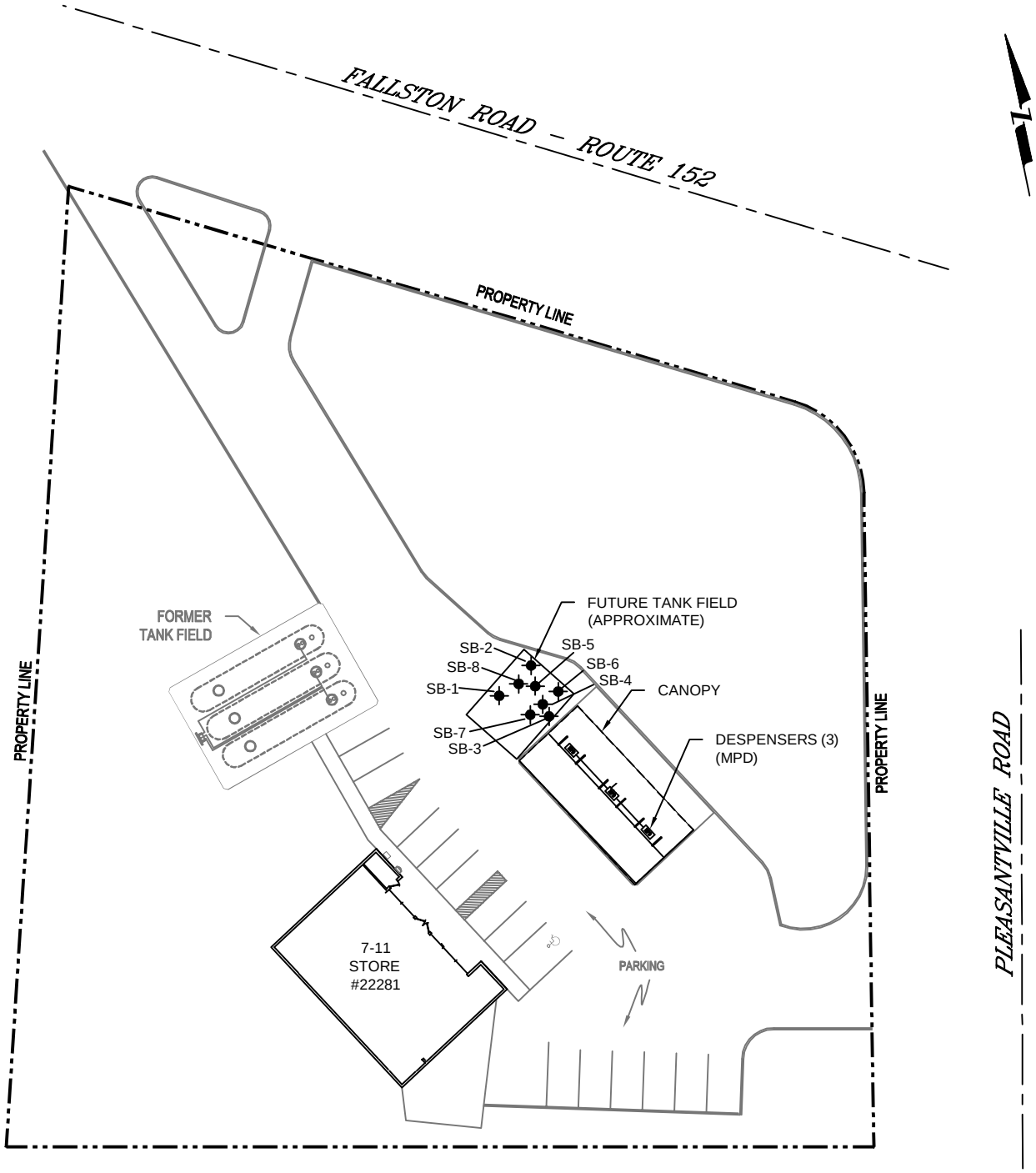
SITE OUTMAP

7-ELEVEN STORE #22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

FIGURE NUMBER: 2

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
LLM/JF	8/21/07	60144763	1



LEGEND

SOIL BORINGS

0 25 50

SCALE: 1" = 50 FT.

DRAWING FOR BASE MAP PROVIDED BY 7-ELEVEN, INC.

C:\Documents and Settings\marshl\Local Settings\Temporary Internet Files\OLKC5\FIG 1 (2).DWG

AECOM

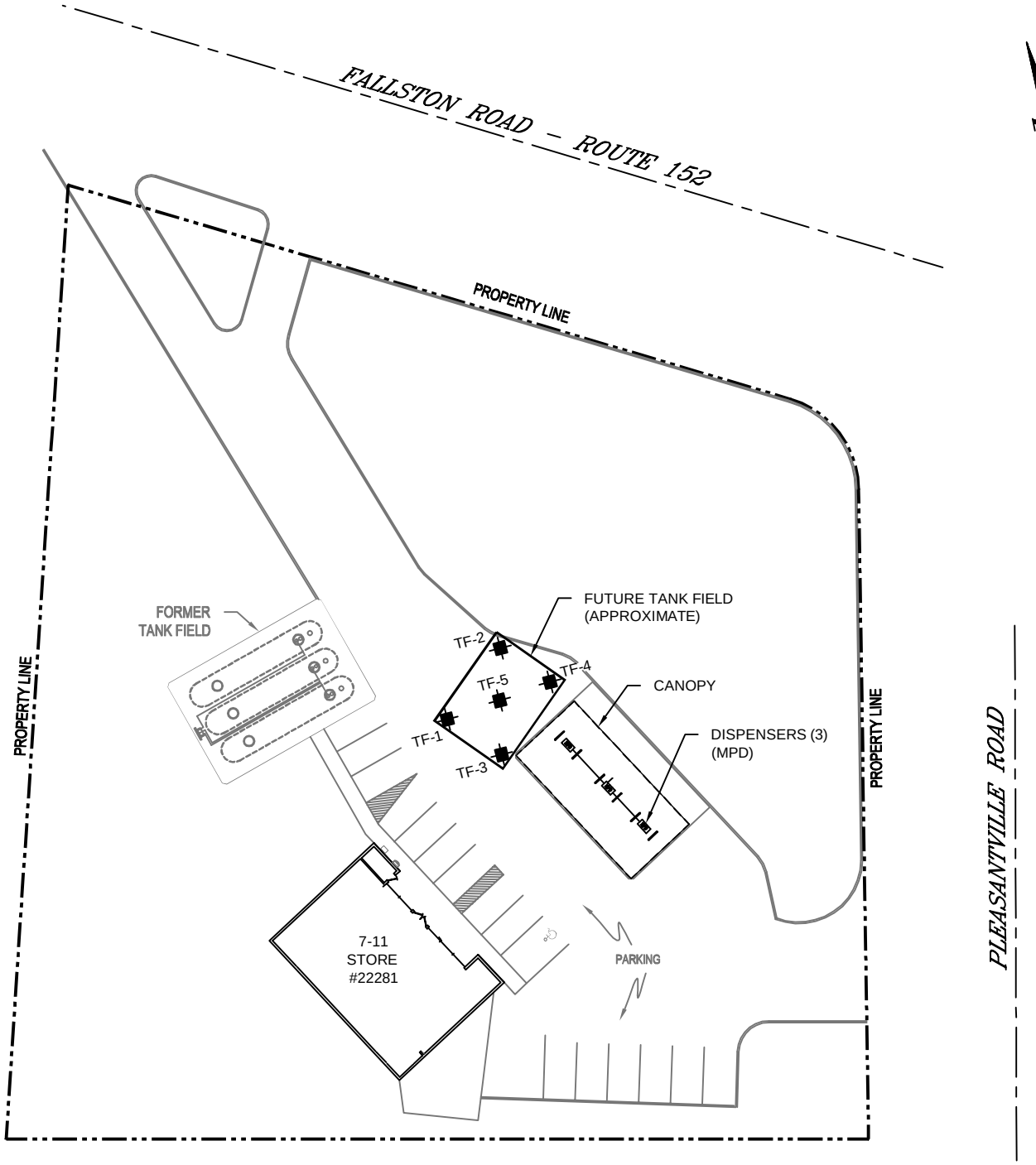
8320 GUILFORD ROAD, SUITE L
COLUMBIA, MARYLAND 21046
PHONE: 240.565.6501
FAX: 410.884.9271
www.aecom.com

CURRENT TANK FIELD
SOIL BORING/SAMPLE LOCATIONS
SEPTEMBER 2, 2008

7-ELEVEN STORE #22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

FIGURE NUMBER: 3

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
LLM	SEPTEMBER 2008	60144763	1



0 25 50

SCALE: 1" = 50 FT.

LEGEND

NEW TANK FIELD FINISHED BOTTOM HOLE SAMPLE LOCATIONS

DRAWING FOR BASE MAP PROVIDED BY 7-ELEVEN, INC.

AECOM

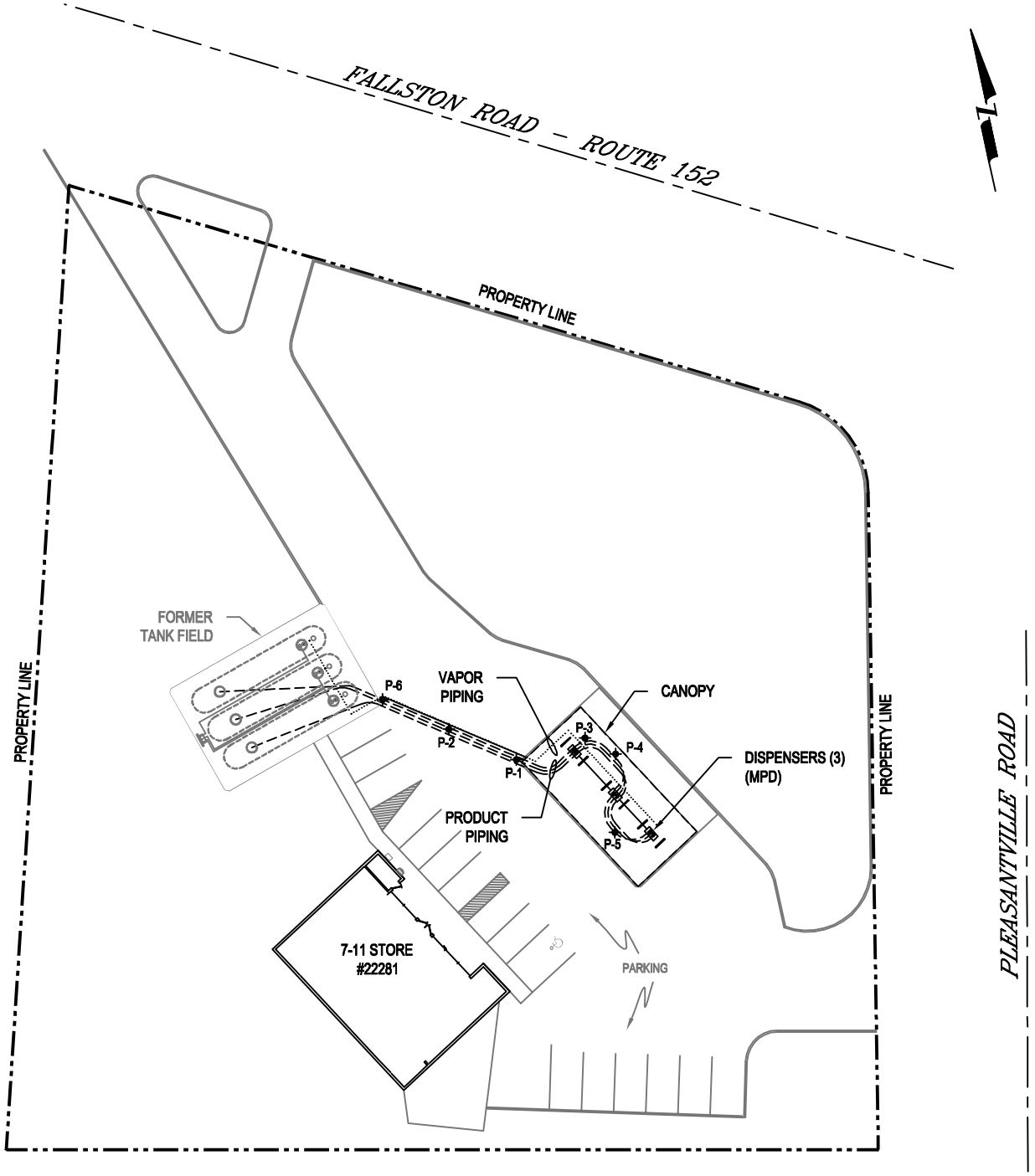
8320 GUILFORD ROAD, SUITE L
COLUMBIA, MARYLAND 21046
PHONE: 240.565.6501
FAX: 410.884.9271
www.ensr.aecom.com

CURRENT TANK FIELD BOTTOM -HOLE SOIL SAMPLE LOCATIONS SEPTEMBER 9, 2008

7-ELEVEN STORE #22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

FIGURE NUMBER: 4

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
LLM	SEPTEMBER 2008	60144763	1



LEGEND

SOIL SAMPLE LOCATIONS FOR PRODUCT PIPING

MPD MULTI-PRODUCT DISPENSERS

0 25 50

SCALE: 1" = 50 FT.

DRAWING FOR BASE MAP PROVIDED BY 7-ELEVEN, INC.

AECOM

8320 GUILFORD ROAD, SUITE L
COLUMBIA, MARYLAND 21046
PHONE: 240.565.6501
FAX: 410.884.9271
www.ensr.aecom.com

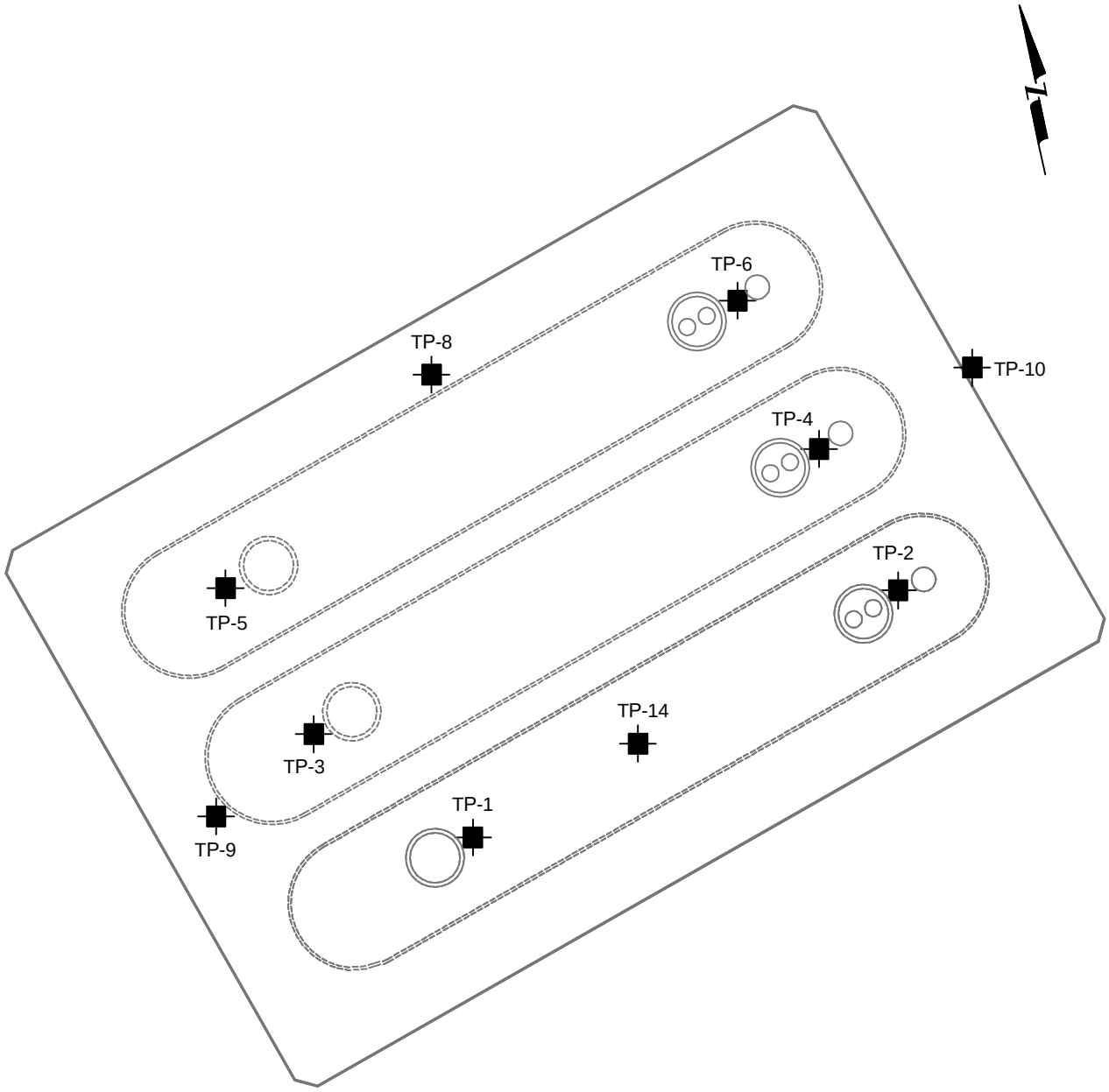
FORMER PRODUCT LINE SOIL SAMPLE LOCATIONS

SEPTEMBER 8 & 12 and OCTOBER 9, 2008

7-ELEVEN STORE #22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

FIGURE NUMBER: 5

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
LLM	SEPTEMBER 2008	60144763	1



LEGEND

TANK FIELD FINISHED BOTTOM HOLE SAMPLE LOCATIONS

0 5 10

SCALE: 1" = 10 FT.

DRAWING FOR BASE MAP PROVIDED BY 7-ELEVEN, INC.

AECOM

8320 GUILFORD ROAD, SUITE L
COLUMBIA, MARYLAND 21046
PHONE: 240.565.6501
FAX: 410.884.9271
www.aecom.com

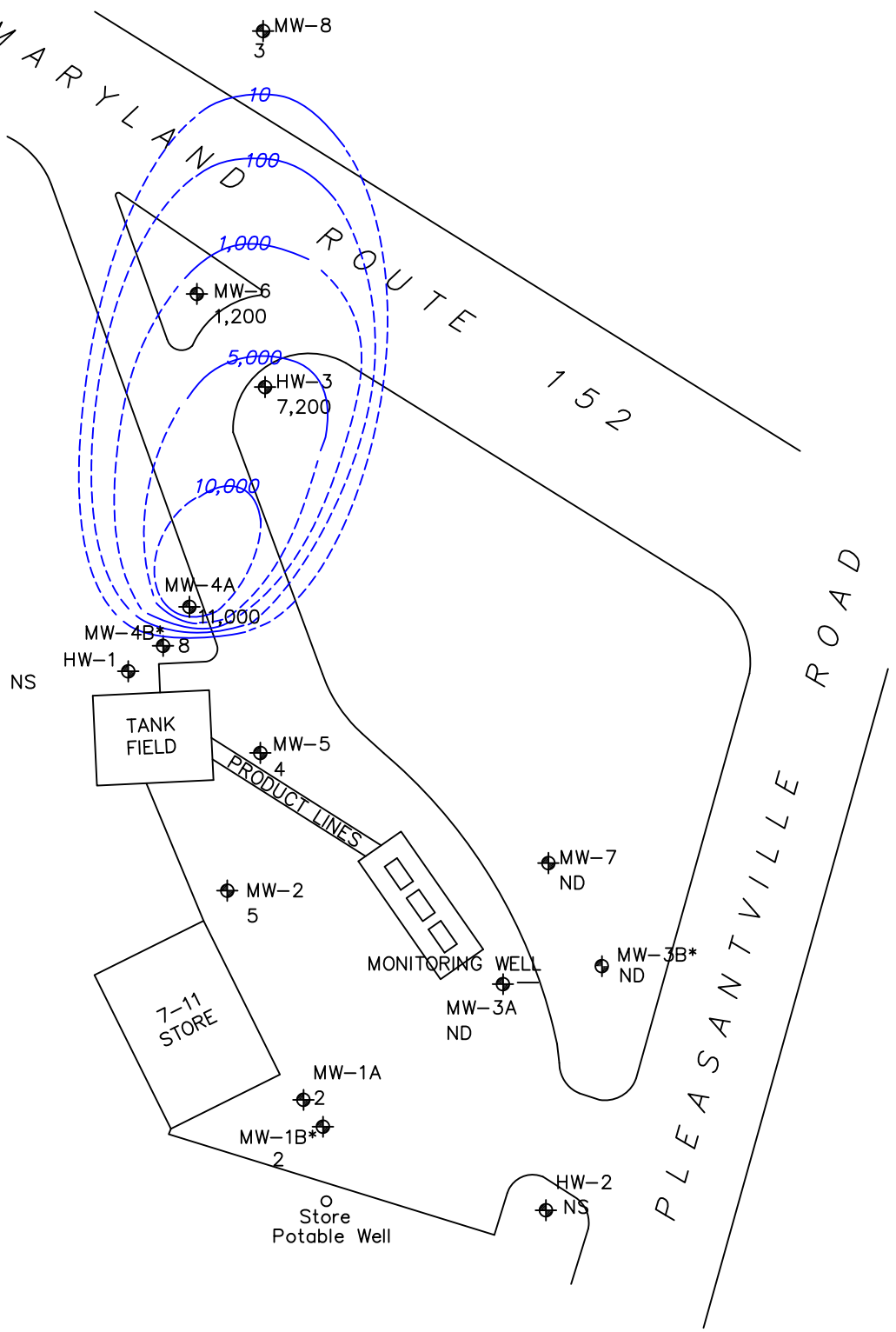
FORMER TANK FIELD SAMPLE LOCATIONS

OCTOBER 8, 2008

7-ELEVEN STORE #22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

FIGURE NUMBER: 6

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
LLM	SEPTEMBER 2008	60144763	1



LEGEND

⊕	MONITORING WELL
2	MTBE GROUNDWATER CONCENTRATIONS (ug/L)
ND	NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
NS	NOT SAMPLED
HW	HISTORICAL WELL
	ISOCONCENTRATION CONTOUR (dashed where inferred)

NOTES
*DEEP WELL – NOT INCLUDED IN CONTOURS

N

APPROX. SCALE: FT
40 0 40

DISSOLVED-PHASE MTBE ISOCONCENTRATION MAP
SEPTEMBER 25, 2007

FEBRUARY 2014

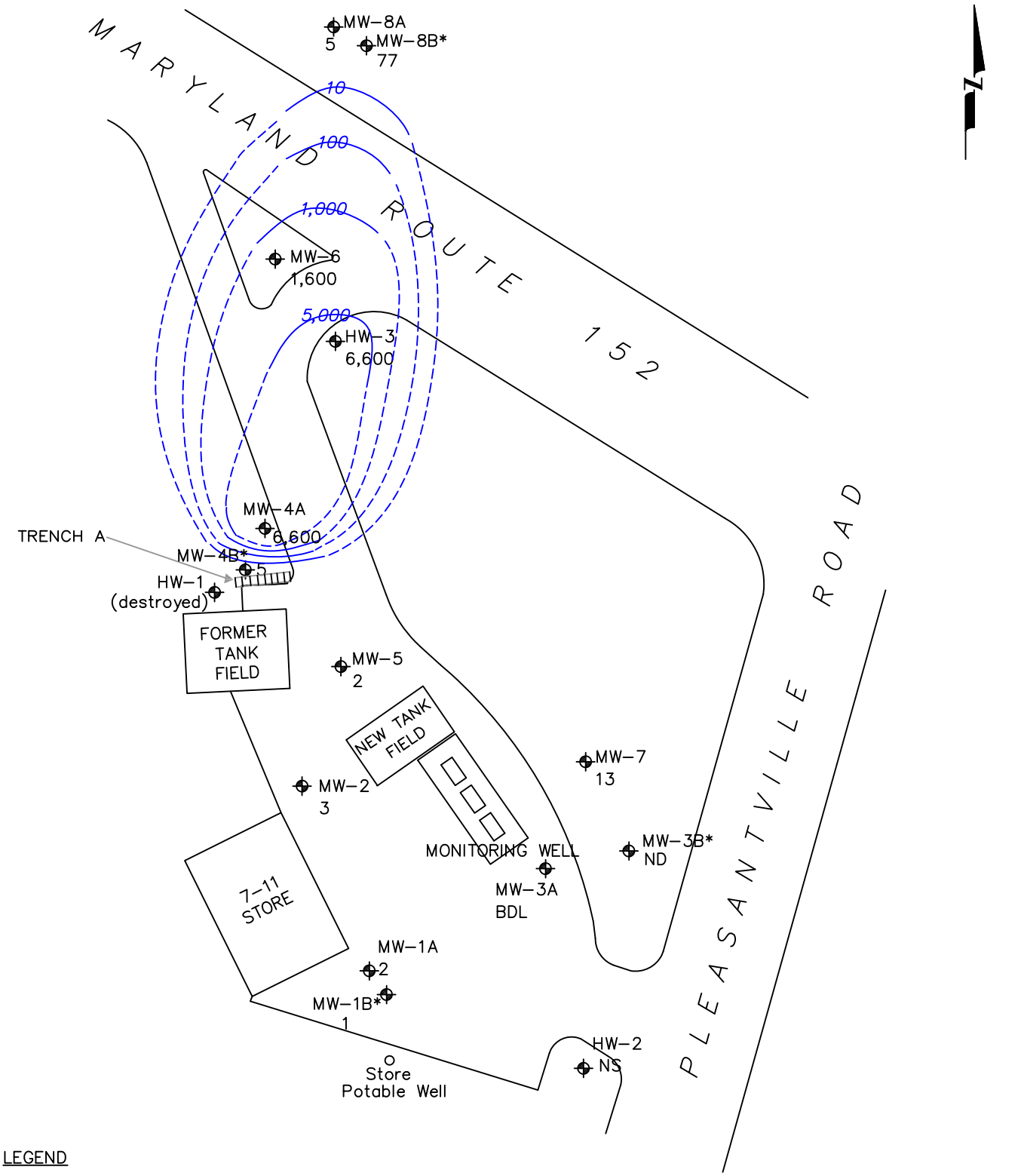
Drawn By: JLT | Reviewed By: RA

7-ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 7

AECOM



LEGEND

⊕	MONITORING WELL
1	MTBE GROUNDWATER CONCENTRATIONS (ug/L)
BDL	Below LABORATORY DETECTION LIMITS
NS	NOT SAMPLED
HW	HISTORICAL WELL
	ISOCONCENTRATION CONTOUR (dashed where inferred)

NOTES

* DEEP WELL (NOT INCLUDED IN CONTOURS)

N

APPROX. SCALE: FT

40 0 40

DISSOLVED-PHASE MTBE ISOCONCENTRATION MAP
SEPTEMBER 27, 2009

FEBRUARY 2014

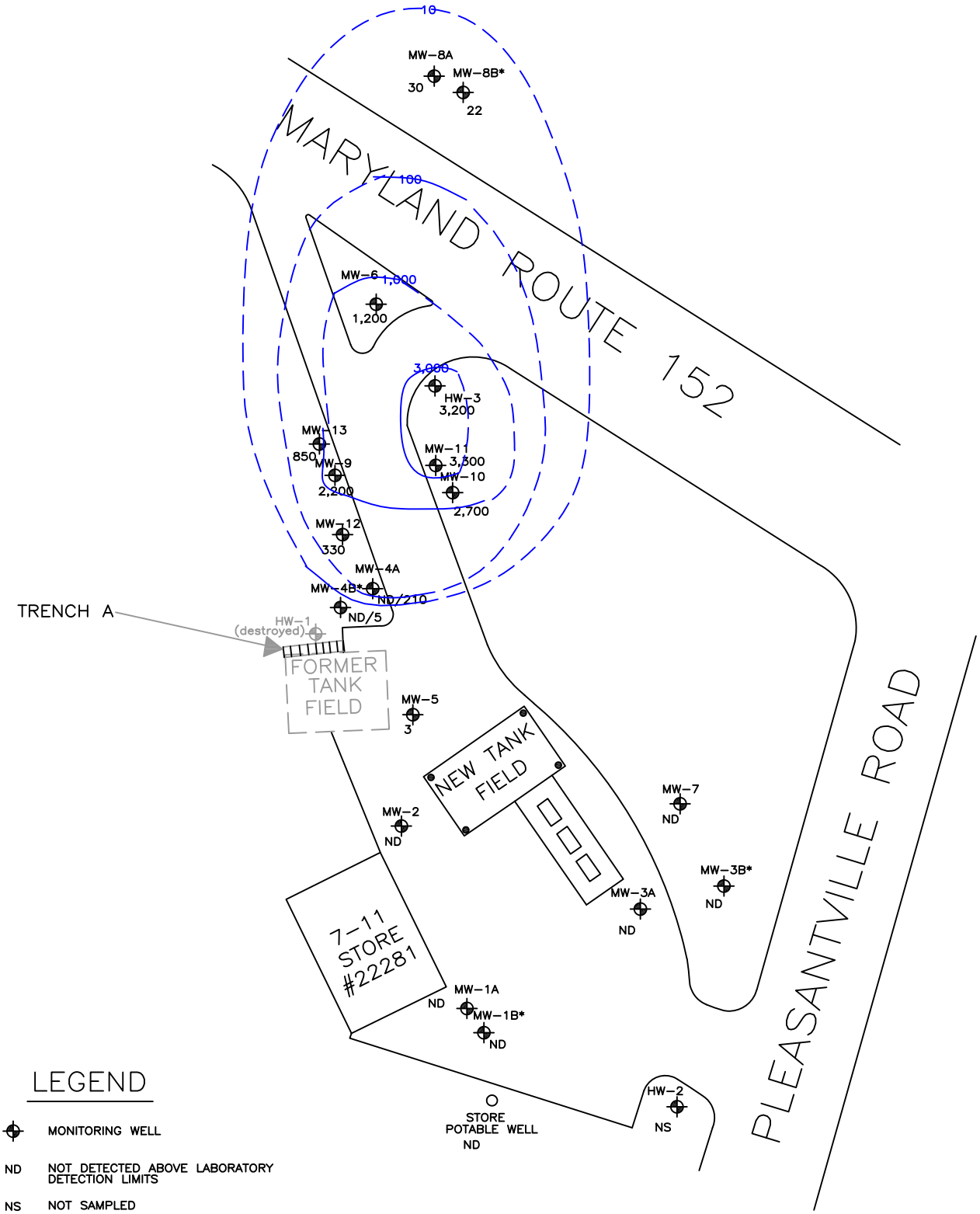
Drawn By: JLT | Reviewed By: RA

7-ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 8

AECOM



LEGEND

- MONITORING WELL
- ND — NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
- NS — NOT SAMPLED
- HW — HISTORICAL WELL
- * — DEEP WELL
- ● — TANK FIELD WELL

ALL RESULTS REPORTED AS ug/L–MICROGRAMS PER LITER

ISOCONCENTRATION CONTOUR (dashed where inferred)

N

APPROX. SCALE: FT

40 0 40

DISSOLVED–PHASE MTBE ISOCONCENTRATION MAP

SEPTEMBER 22, 2011

JANUARY 2014

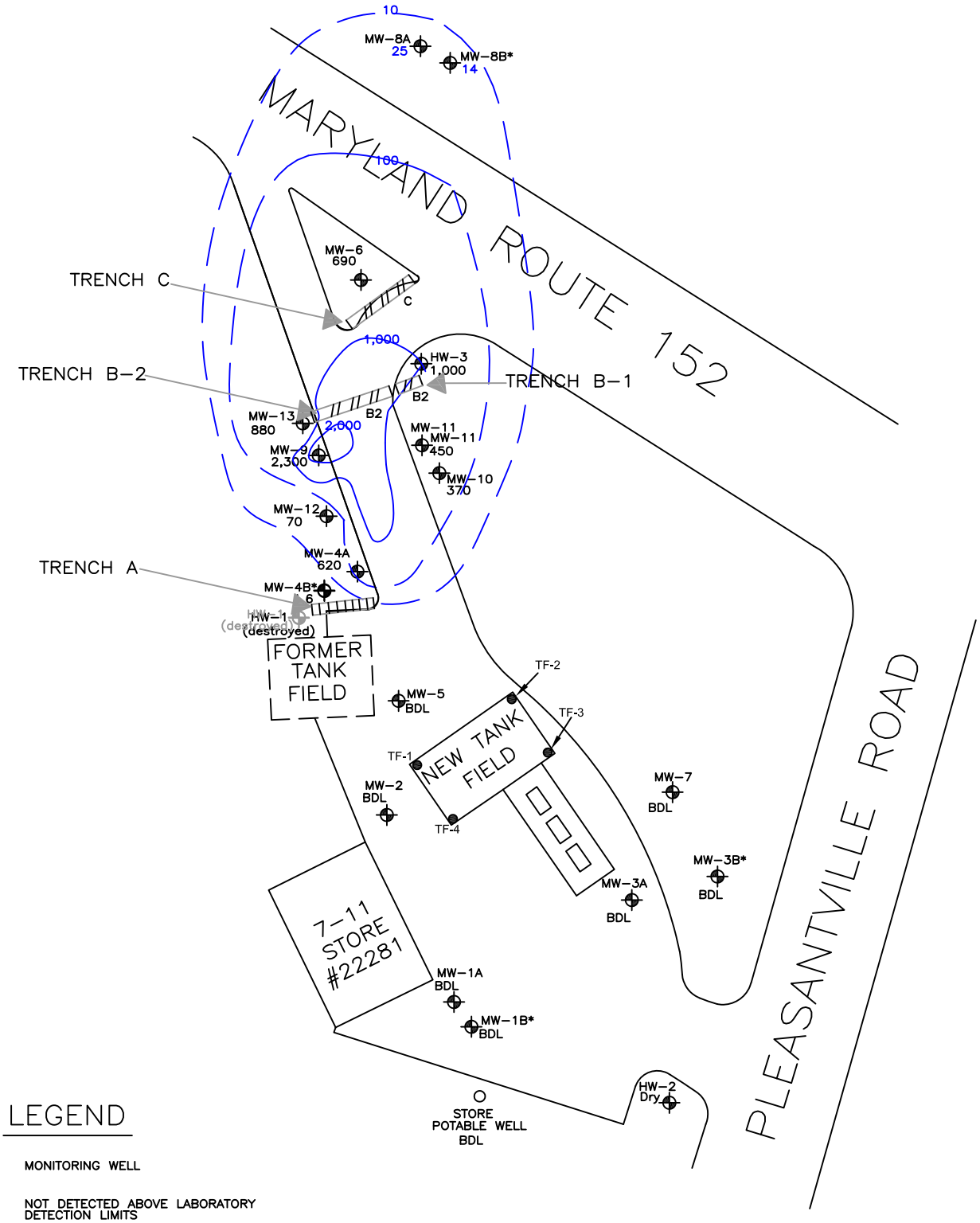
Drawn By: JLT | Reviewed By: RA

7–ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 9

AECOM



LEGEND

- MONITORING WELL
- ND NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
- HW HISTORICAL WELL
- * DEEP WELL – NOT INCLUDED IN CONTOURS
- TANK FIELD WELL
- ALL RESULTS REPORTED AS ug/L–MICROGRAMS PER LITER
- ISOCONCENTRATION CONTOUR (dashed where inferred)

N

APPROX. SCALE: FT

40 0 40

DISSOLVED–PHASE MTBE ISOCONCENTRATION MAP

September 12, 2013

FEBRUARY 2014

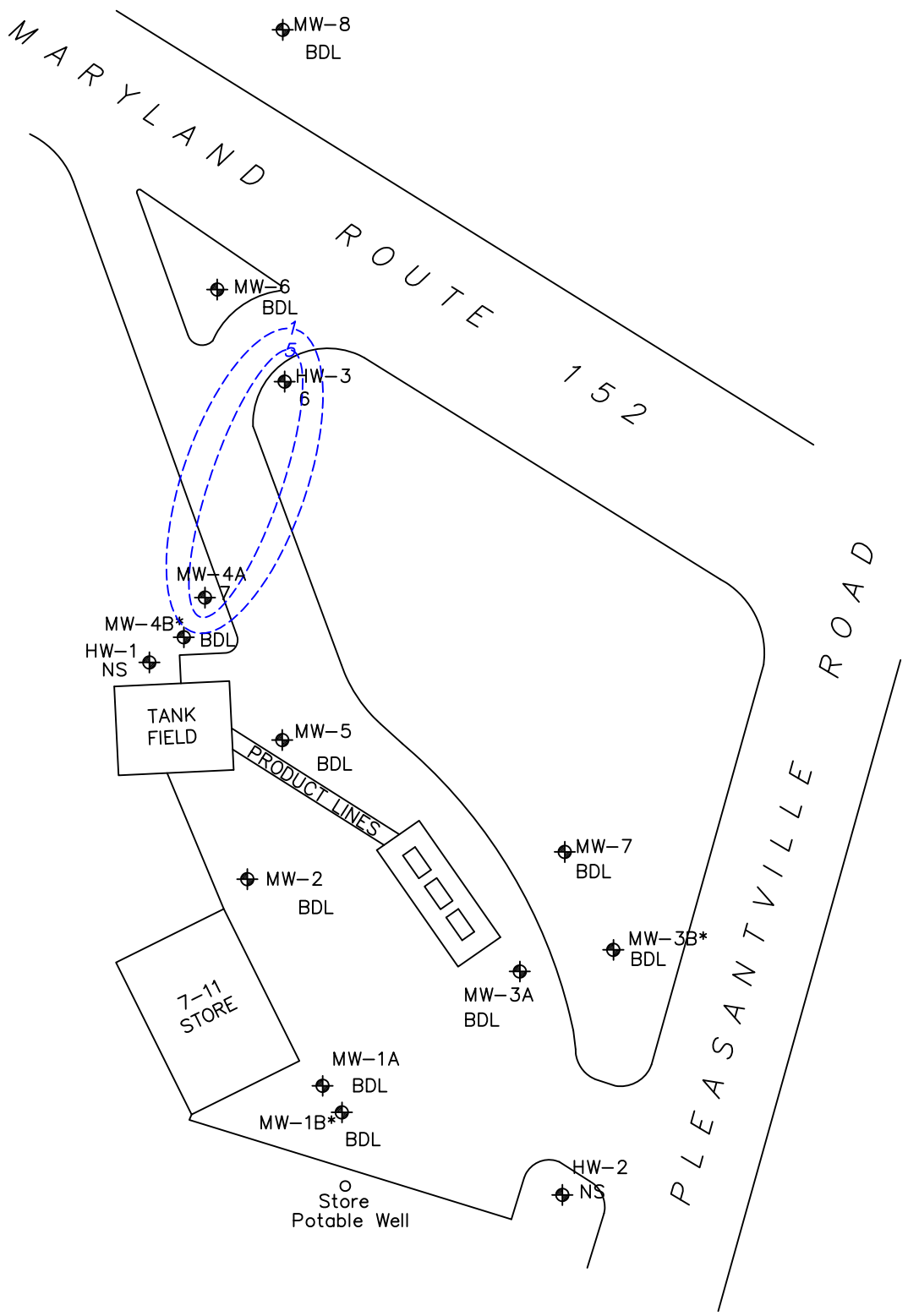
Drawn By: SED | Reviewed By: JC

7–ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 10

AECOM



LEGEND

⊕	MONITORING WELL
2	MTBE GROUNDWATER CONCENTRATIONS (ug/L)
BDL	NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
NS	NOT SAMPLED
HW	HISTORICAL WELL
	ISOCONCENTRATION CONTOUR (dashed where inferred)

NOTES
*DEEP WELL – NOT INCLUDED IN CONTOURS

N

APPROX. SCALE: FT
40 0 40

DISSOLVED-PHASE MTBE ISOCONCENTRATION MAP
SEPTEMBER 25, 2007

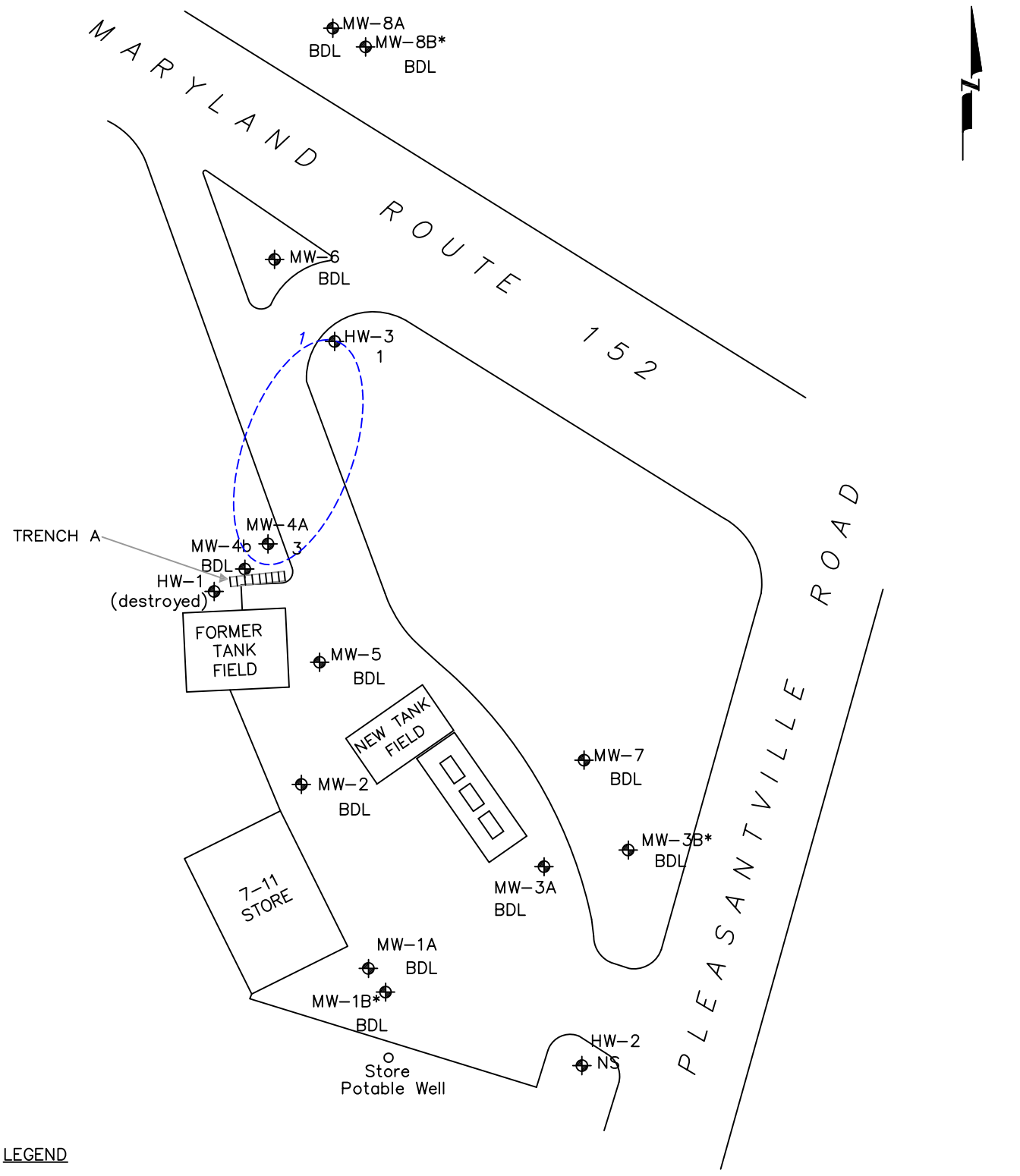
February 2014

Drawn By: JLT | Reviewed By: RA | Project No.: 60144763

7-ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

FIGURE 11

AECOM



LEGEND

⊕	MONITORING WELL
1	BENZENE GROUNDWATER CONCENTRATIONS (ug/L)
BDL	Below LABORATORY DETECTION LIMITS
NS	NOT SAMPLED
HW	HISTORICAL WELL
	ISOCONCENTRATION CONTOUR (dashed where inferred)

NOTES

* DEEP WELL (NOT INCLUDED IN CONTOURS)

N

APPROX. SCALE: FT

40 0 40

DISSOLVED-PHASE BENZENE ISOCONCENTRATION MAP
SEPTEMBER 27, 2009

February 2014

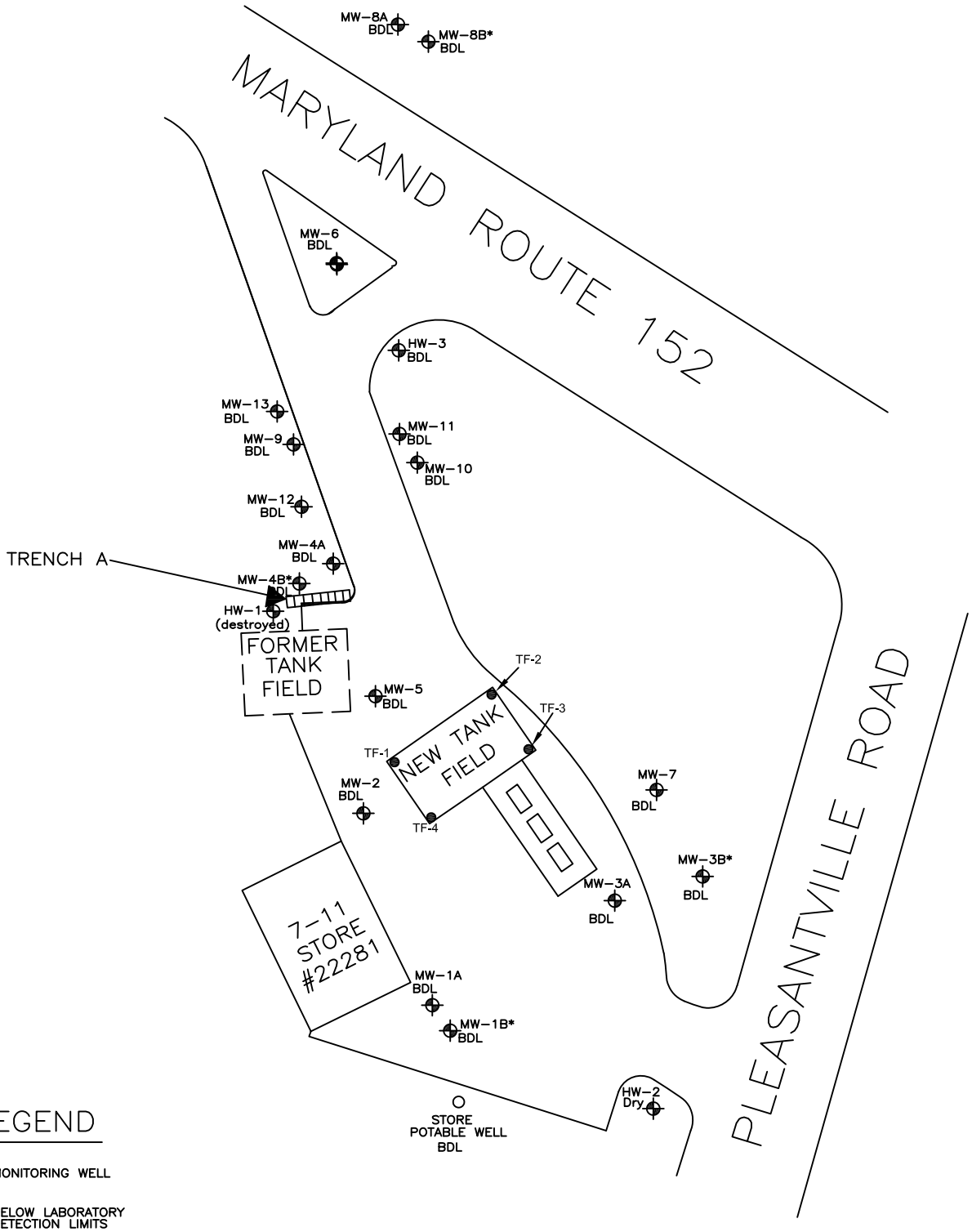
Drawn By: JLT | Reviewed By: RA

7-ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 12

AECOM



LEGEND

- MONITORING WELL
- BDL BELOW LABORATORY DETECTION LIMITS
- HW HISTORICAL WELL
- * DEEP WELL – NOT INCLUDED IN CONTOURS
- TANK FIELD WELL

ALL RESULTS REPORTED AS ug/L–MICROGRAMS PER LITER

ISOCONCENTRATION CONTOUR (dashed where inferred)

N

APPROX. SCALE: FT

40 0 40

DISSOLVED–PHASE BENZENE ISOCONCENTRATION MAP

September 22, 2011

FEBRUARY 2014

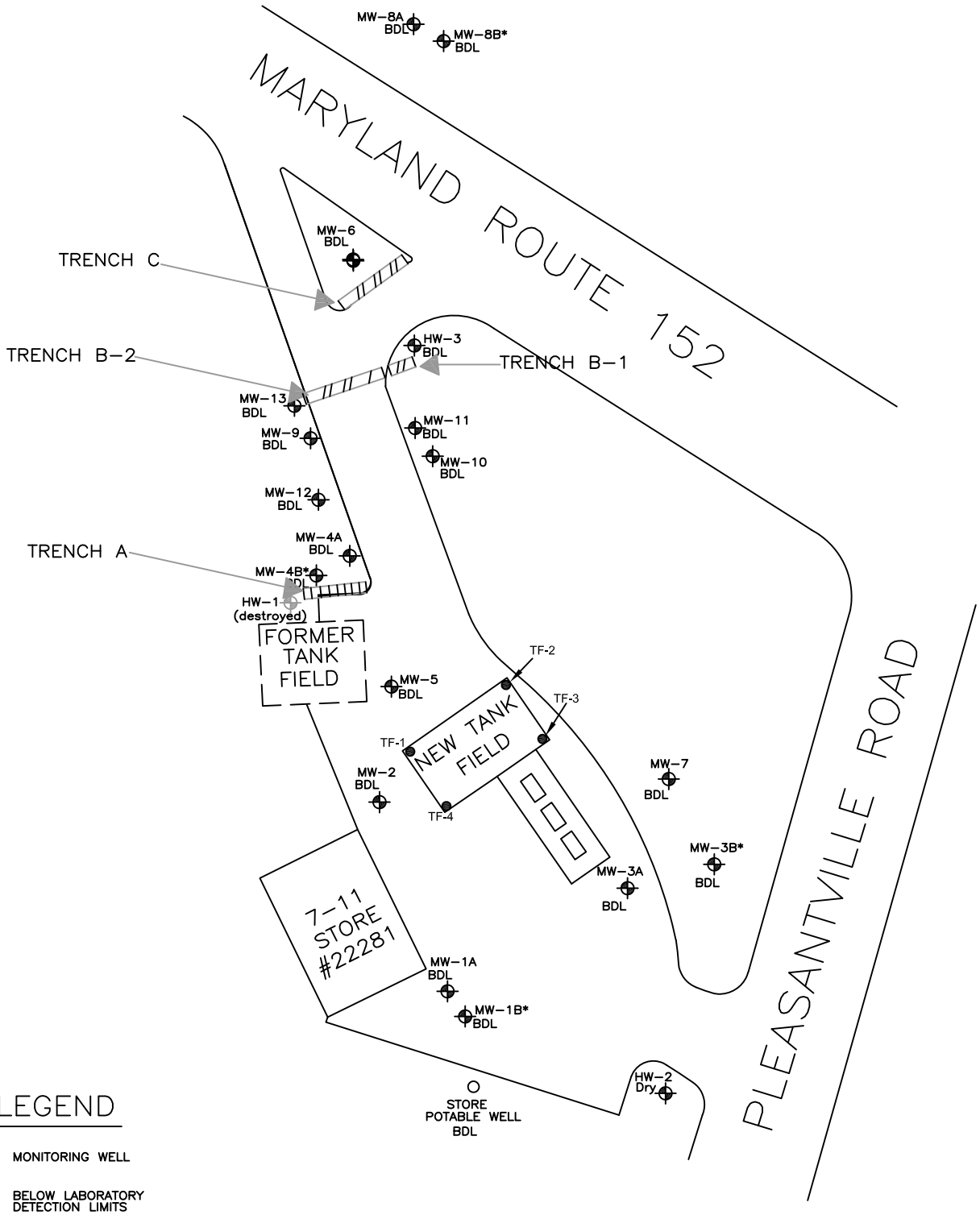
Drawn By: SED | Reviewed By: JC

7–ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

FIGURE 13

AECOM



LEGEND

- MONITORING WELL
- BDL BELOW LABORATORY DETECTION LIMITS
- HW HISTORICAL WELL
- * DEEP WELL – NOT INCLUDED IN CONTOURS
- TANK FIELD WELL

ALL RESULTS REPORTED AS ug/L–MICROGRAMS PER LITER

ISOCONCENTRATION CONTOUR (dashed where inferred)

N

APPROX. SCALE: FT

40 0 40

DISSOLVED–PHASE BENZENE ISOCONCENTRATION MAP

September 12, 2013

FEBRUARY 2014

Drawn By: SED | Reviewed By: JC

7–ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

Project No.: 60144763

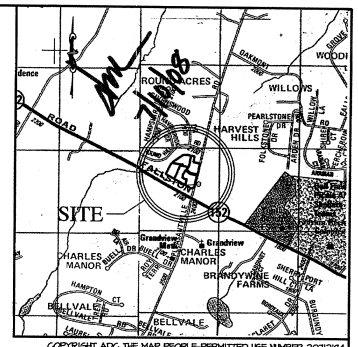
FIGURE 14

AECOM

130-46

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 10°19'55" E	6.00'
L2	S 79°40'05" E	34.43'
L3	S 10°19'55" W	33.33'
L4	S 28°35'31" W	114.01'
L5	S 28°51'00" W	90.13'
L6	S 51°55'52" E	143.53'
L7	S 78°33'27" E	179.69'
L8	S 11°26'33" W	14.54'
L9	N 78°42'20" W	20.00'
L10	S 66°20'20" W	74.60'
L11	N 79°48'24" W	53.54'
L12	N 57°28'38" W	55.28'
L13	N 04°40'31" E	76.01'
L14	N 82°48'35" E	12.44'
L15	S 11°26'33" W	12.50'
L16	S 11°26'33" W	12.50'
L17	S 28°51'00" W	126.36'
L18	S 51°55'52" E	129.94'
L19	N 29°15'18" E	126.56'
L20	S 10°19'47" W	151.82'



COPYRIGHT ADC THE MAP PEOPLE-PERMITTED USE NUMBER 20712144

LOCATION MAP

1" = 2000'

PRIOR TO ISSUANCE OF BUILDING PERMIT

A WELL SHALL BE DRILLED AND SHALL BE APPROVED BY THE HARFORD COUNTY HEALTH DEPARTMENT PRIOR TO ISSUANCE OF A BUILDING PERMIT.

SUBMIT A PLOT PLAN WITH THE SANITARY APPLICATION THAT INDICATES THE APPROVED WELL SITE, PROPOSED DWELLING SITE, PROPOSED SEWAGE SYSTEM AREA, EXISTING WELLS AND/OR SEWAGE SYSTEMS LOCATED WITHIN 100 FEET OF THE BOUNDARY OF THE LOT.

NOTES

DENOTES THE 20,000/12,000/8,000 SQUARE FOOT MINIMUM WASTE DISPOSAL SYSTEM AREA WHEREIN NO CONSTRUCTION IS PERMITTED WITHIN 30' OF THE DESIGNATED AREA AND ANY AREA WITHOUT PERMIT APPROVAL OF THE COUNTY HEALTH DEPARTMENT. EXCEPTIONS UP TO THE WASTE DISPOSAL SYSTEM AREA BUT NOT WITHIN IT, ARE PERMITTED FOR DRIVEWAYS, UTILITIES, AND SMALL PHYSICAL STRUCTURES(TOOL SHEDS, ETC.).

DRIVEWAY ENTRANCE CONSTRUCTION AND LOCATION TO BE APPROVED BY THE HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS/STATE ROADS COMMISSION WHEREVER APPLICABLE.

THE SUBDIVISION MUST COMPLY WITH STATE REGULATIONS FOR UNDERGROUND ELECTRIC DISTRIBUTION AND TELEPHONE SERVICES.

PRIVATE WELLS/WASTE DISPOSAL SYSTEM AREAS SHALL BECOME NULL AND VOID WHEN PUBLIC SERVICES BECOME AVAILABLE.

THE SIGNING OF THIS PLAT IN NO WAY GUARANTEES THE AVAILABILITY OF PUBLIC SERVICES AT THE TIME OF DEVELOPMENT.

:DENOTES COMMON DRIVE EASEMENT AREA.

THE MINIMUM BUILDING SETBACK LINES ARE ESTABLISHED BY THE HARFORD COUNTY ZONING CODE AND MAY VARY OR BE MODIFIED IN ACCORDANCE WITH PROVISIONS OF THE CODE

THIS PLAT IS SUBJECT TO REVISIONS.

THIS SUBDIVISION MUST COMPLY WITH THE 2000 DESIGN MANUAL FOR STORMWATER MANAGEMENT

THIS LOT IS SUBJECT TO STORM WATER MANAGEMENT REGULATIONS PER HARFORD COUNTY ORDINANCE 01-55, CHAPTER 214, INSOFAR AS THE IMPERVIOUS AREA OF THE LOT SHALL NOT EXCEED 15% OF THE TOTAL LOT AREA AND THE DOWN SPOUTS FROM ALL ROOF LEADERS SHALL BE DIRECTED TO LAWN AREAS.

TOTAL SITE AREA: 10.531 AC.±
TOTAL AREA OF FOREST RETENTION AREA: 5.452 AC.± OR 51.7% OF TOTAL SITE.

AREA TABLE

LOT 1: 2.011 AC.±
LOT 2: 2.132 AC.±-GROSS
0.115 AC.±-PANHANDLE
2.017 AC.±-NET
LOT 3: 2.013 AC.±-GROSS
LOT 4: 2.116 AC.±-GROSS
0.094 AC.±-PANHANDLE
2.022 AC.±-NET
LOT 5: 2.254 AC.±-GROSS

SUBDIVISION DATA

1. TOTAL ENCLOSED AREA: 10.531 AC.±
2. TOTAL ROAD IMPROVEMENT RIGHT-OF-WAY AREA: N/A
3. TOTAL LOT AREA: 10.531 AC.±
4. LOTS CREATED AFTER 2-8-77
5. TAX MAP: #47 , PARCEL: #252
6. DEED REFERENCE: J.J.R. 5413/228
7. #2316 INDICATES HOUSE NUMBER.
8. (1) INDICATES LOT NUMBER.
9. NUMBER OF LOTS: 5
10. PRESENT ZONING: RR
11. SUBJECT TO BOARD OF APPEALS CASE #171.

COMMON DRIVE LINE TABLE

LINE	BEARING	DISTANCE
CD1	S 11°26'33" W	25.00'
CD2	N 78°33'27" W	182.64'
CD3	N 51°55'52" W	66.28'
CD4	N 18°05'52" W	140.84'
CD5	N 79°40'05" W	175.94'
CD6	N 21°26'29" E	20.38'
CD7	S 79°40'05" E	195.29'
CD8	S 18°05'52" E	147.20'
CD9	S 51°55'52" E	43.78'
CD10	S 78°33'27" E	176.73'

OWNER:

RT 152, LLC
1814 ANGLESIDE ROAD
FALLSTON, MARYLAND 21047

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT THIS PLAT, AND THE SURVEY ON WHICH IT IS BASED, WERE MADE IN ACCORDANCE WITH CHAPTER 06, "MINIMUM STANDARDS OF PRACTICE," COMAR, TITLE 09, MARYLAND DEPARTMENT OF LICENSING AND REGULATION FOR PROFESSIONAL LAND SURVEYORS, IN EFFECT AS OF 1995.

CHARLES DUDLEY CAMPBELL — REGISTERED PROPERTY LINE SURVEYOR NO. 300

APPROVED: _____ DEPUTY STATE HEALTH OFFICER — DATE 09-05-08
APPROVED: _____ DIR., DEPT. OF PUBLIC WORKS — DATE 9-22-08
APPROVED: _____ DIR. DEPT. OF PLANNING & ZONING — DATE 9/24/08
APPROVED: _____ COUNTY ATTORNEY — DATE 9/24/08
APPROVED: HARFORD COUNTY, MARYLAND
_____ COUNTY EXECUTIVE — DATE September 25, 2008
_____ DIRECTOR OF ADMINISTRATION — DATE 9/24/08

THE OWNER HEREBY GRANTS TO HARFORD COUNTY, MD. AN EASEMENT FOR THE CONSTRUCTION, MAINTENANCE, REPAIR AND REPLACEMENT OF WATER, SEWER, AND STORM DRAINAGE LINES WITHIN THE DRAINAGE AND UTILITY EASEMENTS AND ROAD IMPROVEMENT RIGHT-OF-WAYS AS SHOWN ON THIS PLAT.

UNLESS OTHERWISE PROVIDED ON THIS PLAT, THE STREETS, ROADS, OPEN SPACES AND PUBLIC SITES SHOWN HEREON AND THE MENTION THEREOF IN DEEDS ARE FOR THE PURPOSE OF DESCRIPTION ONLY AND THE SAME ARE NOT INTENDED TO BE DEDICATED TO PUBLIC USE; THE FEE SIMPLE TITLE TO THE LAND SO SHOWN IS EXPRESSLY RESERVED TO THE PRESENT OWNER(S) SHOWN ON THIS PLAT, THEIR SUCCESSORS, HEIRS, AND ASSIGNS. NOTHING CONTAINED HEREIN SHALL PRECLUDE THE OWNER FROM CONVEYING BY DEED THE STREETS, ROADS, OPEN SPACES AND PUBLIC SITES IN FEE TO HARFORD COUNTY, MD.

NO LOT WILL BE RESUBDIVIDED TO PRODUCE A BUILDING SITE OF LESS AREA OR WIDTH THAN THE MINIMUM REQUIRED BY SUBDIVISION REGULATIONS OR THE COUNTY HEALTH OFFICER.

OWNER: MANAGING MEMBER — DATE: 7/6/08

RECORDING STAMP

REC'D. FOR RECORD 9-30-08
AT 1:35 O'CLOCK P M. SAME
DAY RECORDED IN LIBER J.J.R.
NO. 130 FOLIO 46 ONE OF
THE PLAT RECORDS OF HARFORD
COUNTY, MD. AND EXAMINED PER
JAMES REILLY, CLERK

SURVEYOR'S SEAL

7/3/08

FINAL PLAT
LAND OF
RT 152, LLC
FOURTH ELECTION DISTRICT — HARFORD COUNTY, MARYLAND

BAY STATE LAND SERVICES
ENGINEERS * SURVEYORS * LAND PLANNERS
ENVIRONMENTAL CONSULTANTS
P.O. BOX 853
BEL AIR, MARYLAND 21014-0853
PHONE: 410-879-4747-FAX: 410-420-3449

SCALE: 1"=100'	DATE: 7-3-08	SHEET 1 of 1
DRAWN BY: JSC	CHK. BY: CDC	JOB NO. 06042

08-090-2
1/16-08

MSA SSU 1246 11086 #156792

LEGEND

● Potable Well

AECOM

FIGURE 15

7-ELEVEN Inc.
STORE No. 22281
2400 PLEASANTVILLE ROAD
FALLSTON, MARYLAND

RT 152, LLC PLAT
FALLSTON, MD

FEBRUARY 2014	Drawn By: SD	Reviewed By: JC	Project No.: 60144763

N

S:\Projects\060000\06046-ms rte 152_stressentwine\06046_FINAL_PLAT.dwg, layout1

TABLES

Table 1
SVE Pilot Test Observations
SVE Pilot Test
7-Eleven Store #22281
Fallston, MD

	SVE-1						SVE-2					
Time	Vac (in H2O)	Flow (fpm)	Flow (cfm)	PID (ppm)	Approx. TPH Conc (ug/L)	Approx. Recovery (lbs/hr)	Vac (in H2O)	Flow (fpm)	Flow (cfm)	PID (ppm)	Approx. TPH Conc (ug/L)	Approx. Recovery (lbs/hr)
9:30	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
10:30	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
11:30	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
12:30	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
13:30	50	1900	41.8	28.1	7.9	0.0012	50	3000	66	0	0.0	0.0000
14:30	49	1400	30.8	51.6	14.4	0.0017	48	2500	55	0	0.0	0.0000
15:30	48	1600	35.2	67.6	18.9	0.0025	48	2200	48.4	0	0.0	0.0000
16:30	49	1400	30.8	70.1	19.6	0.0023	48	1800	39.6	0	0.0	0.0000
17:30	50	2000	44	73.4	20.6	0.0034	49	2800	61.6	0	0.0	0.0000

	SVE-3						MW-4A					
Time	Vac (in H2O)	Flow (fpm)	Flow (cfm)	PID (ppm)	Approx. TPH Conc (ug/L)	Approx. Recovery (lbs/hr)	Vac (in H2O)	Flow (fpm)	Flow (cfm)	PID (ppm)	Approx. TPH Conc (ug/L)	Approx. Recovery (lbs/hr)
9:30	27	900	19.8	0	0.0	0.0000	Off	Off	Off	Off	Off	Off
10:30	27	900	19.8	0.5	0.1	0.0000	Off	Off	Off	Off	Off	Off
11:30	28	1400	30.8	8.2	2.3	0.0003	28	250	5.5	0	0.0	0.0000
12:30	28	1200	26.4	16	4.5	0.0004	28	400	8.8	0	0.0	0.0000
13:30	50	1600	35.2	25.1	7.0	0.0009	50	500	11	0	0.0	0.0000
14:30	50	1400	30.8	30.3	8.5	0.0010	49	400	8.8	0	0.0	0.0000
15:30	49	1600	35.2	23.1	6.5	0.0009	48	600	13.2	0	0.0	0.0000
16:30	49	1600	35.2	46.8	13.1	0.0017	50	600	13.2	0	0.0	0.0000
17:30	50	1700	37.4	44.2	12.4	0.0017	50	700	15.4	0	0.0	0.0000

Approx Conc. ppm / (24.45/MW) = ug/L Assume MW of TPH ~ 86.2 g/mol
Approx Recovery cfm * ug/L * 2.205E-9 lb/ug * 28.32 L/cu ft * 60 min/hr

Table 2
Summary of Extended SVE Test Field Monitoring Data
7-Eleven Store No. 22281
Fallston, Maryland

Date	Recovery Wells																SVE System												Recovery Wells											
	SVE-1				SVE-2				SVE-3				MW-4A				Total Influent				GAC 1 Influent			GAC 2 Influent			Final Effluent			SVE-1			SVE-2			SVE-3			MW-4A		
	Flow		PID	Vac	Flow		PID	Vac	Flow		PID	Vac	Flow		PID	Vac	Flow		PID	Vac	Flow		PID	Flow		PID	Flow		PID	Approx TPH	Recovery		Approx TPH	Recovery		Approx TPH	Recovery		Approx TPH	Recovery	
Units	fpm	cfm	ppm	in H20	fpm	cfm	ppm	in H20	fpm	cfm	ppm	in H20	fpm	cfm	ppm	in H20	fpm	cfm	ppm	in H2O	fpm	cfm	ppm	fpm	cfm	ppm	fpm	cfm	ppm	ug/L	lb/hr	total lbs	ug/L	lb/hr	total lbs	ug/L	lb/hr	total lbs	ug/L	lb/hr	total lbs
11/27/06	1400	30.5	20.3	48	1200	26.2	0	48	400	8.7	41	48	500	10.9	0	49	3200	157.0	-	55	4000	196.3	2.5	5500	269.8	0	5000	245.3	0	5.7	0.0007		0.0	0.0000		11.5	0.0004		0.0	0.0000	
11/27/06	2400	52.3	45	44	1800	39.3	0	44	900	19.6	123	40	900	19.6	0	40	2400	117.8	-	55	4500	220.8	22	4500	220.8	0	4000	196.3	0	12.6	0.0025	0.0000	0.0	0.0000	0.0000	34.4	0.0025	0.0000	0.0	0.0000	0.0000
11/28/06	1000	21.8	285	48	1000	21.8	4.3	46	450	9.8	295	46	500	10.9	0	48	2200	107.9	-	55	4500	220.8	29.2	4500	220.8	0	4700	230.6	0	79.8	0.0065	0.1565	1.2	0.0001	0.0024	82.6	0.0030	0.0729	0.0	0.0000	0.0000
12/7/06	1300	28.3	11.2	-	800	17.4	2.5	-	450	9.8	194	-	400	8.7	4.4	-	1100	54.0	70.1	52	4700	230.6	10.7	4500	220.8	0	4050	198.7	0	3.1	0.0003	0.2284	0.7	0.0000	0.0122	54.3	0.0020	0.5042	1.2	0.0000	0.0087
12/11/06	1300	28.3	42.8	46	1000	21.8	0	47	400	8.7	115	47	450	9.8	0	47	1300	63.8	35.2	52	4700	230.6	14.1	4500	220.8	0	3900	191.3	0	12.0	0.0013	0.3506	0.0	0.0000	0.0122	32.2	0.0011	0.6053	0.0	0.0000	0.0087
12/19/06	1000	21.8	42.7	47	950	20.7	5.5	47	400	8.7	104	47	350	7.6	0	47	1150	56.4	41.2	53	4600	225.7	14	4700	230.6	0.8	3900	191.3	0	12.0	0.0010	0.5382	1.5	0.0001	0.0352	29.1	0.0010	0.7880	0.0	0.0000	0.0087
12/29/06	1800	39.3	0.1	39	2800	61.1	0	37	1100	24.0	0	45	2200	48.0	0	46	1800	88.3	0	45	1200	58.9	5.1	4100	201.2	1.5	4500	220.8	0	0.0	0.0000	0.5391	0.0	0.0000	0.0352	0.0	0.0000	0.7880	0.0	0.0000	0.0087
1/9/07	1000	21.8	25.8	46	900	19.6	1.2	46	450	9.8	40	47	400	8.7	1.9	46	1050	51.5	16.7	54	4600	225.7	4.9	4500	220.8	2.1	3800	186.4	0	7.2	0.0006	0.6950	0.3	0.0000	0.0417	11.1	0.0004	0.8959	0.5	0.0000	0.0133
1/16/07	1000	21.8	20.7	50	1100	24.0	0.7	49	500	10.9	32	49	500	10.9	0.2	50	1200	58.9	12.1	57	3800	186.4	4.2	3800	186.4	1.7	3800	186.4	0	5.8	0.0005	0.7745	0.2	0.0000	0.0447	8.8	0.0004	0.9566	0.1	0.0000	0.0137
1/23/07	1300	28.3	23.1	48	1300	28.3	7	47	700	15.3	40	47	550	12.0	0	47	1500	73.6	15.1	56	5500	269.8	5.7	5700	279.7	1.4	5300	260.0	0	6.5	0.0007	0.8899	2.0	0.0002	0.0796	11.1	0.0006	1.0634	0.0	0.0000	0.0137
1/29/07	1200	26.2	22	48	1300	28.3	2.8	47	600	13.1	43	47	600	13.1	0	47	1500	73.6	15.8	57	5400	264.9	5.5	5700	279.7	0.8	5400	264.9	0	6.2	0.0006	0.9769	0.8	0.0001	0.0916	12.1	0.0006	1.1486	0.0	0.0000	0.0137
2/5/07	1150	25.1	23	-	1300	28.3	0.9	-	800	17.4	32	-	700	15.3	0	-	1500	73.6	14.9	-	5700	279.7	4.3	5800	284.6	1.6	5000	245.3	0	6.4	0.0006	1.0785	0.3	0.0000	0.0961	9.0	0.0006	1.2470	0.0	0.0000	0.0137
2/12/07	1300	28.3	22.4	50	1400	30.5	0.4	48	700	15.3	42	48	600	13.1	0	47	1500	73.6	15.4	55	5600	274.8	4.9	5700	279.7	1.7	5200	255.1	0	6.3	0.0007	1.1904	0.1	0.0000	0.0983	11.8	0.0007	1.3600	0.0	0.0000	0.0137
2/20/07	1000	21.8	12.9	49	1200	26.2	1.8	48	500	10.9	41	49	600	13.1	0	47	1300	63.8	9.1	55	5600	274.8	3.8	5800	284.6	0.7	5400	264.9	0	3.6	0.0003	1.2471	0.5	0.0000	0.1078	11.4	0.0005	1.4496	0.0	0.0000	0.0137
2/26/07	1200	26.2	11.1	48	1300	28.3	0.4	47	350	7.6	32	47	500	10.9	0	47	1400	68.7	6.8	48	5300	260.0	1.9	5600	274.8	0.4	5400	264.9	0	3.1	0.0003	1.2910	0.1	0.0000	0.1095	8.9	0.0003	1.4861	0.0	0.0000	0.0137
3/7/07																															1.2910			0.1095			1.4861			0.0137
3/29/07			3.1	48			0.1	48			5	47			0	47			1.6	47			0			0			0	0.9	0.0000	1.2910	0.0	0.0000	0.1095	1.5	0.0000	1.4861	0.0	0.0000	0.0137
4/4/07	1050	22.9	13.2	48	1100	24.0	3.9	48	400	8.7	56		400	8.7	2.6	47	1150	56.4	18.5	46	4600	225.7	2	3900	191.3	0	4500	220.8	0	3.7	0.0003	1.3366	1.1	0.0001	0.1236	15.6	0.0005	1.5595	0.7	0.0000	0.0171
4/20/07	1000	21.8	10.1	47	1400	30.5	4.4	46	400	8.7	51	47	600	13.1	1.5	47	1400	68.7	17	46	5800	284.6	1.1	4900	240.4	0	5700	279.7	0	2.8	0.0002	1.4254	1.2	0.0001	0.1777	14.4	0.0005	1.7401	0.4	0.0000	0.0250
5/1/07	1200	26.2	8.5	-	1400	30.5	2.3	-	800	17.4	27	-	800	17.4	1.9	-	1500	73.6	8.3	44	5800	284.6	0	4700	230.6	0.6	5700	279.7	0.6	2.4	0.0002	1.4870	0.6	0.0001	0.1972	7.7	0.0005	1.8725	0.5	0.0000	0.0342
5/14/07	1300	28.3	9.7	-	1400	30.5	1.9	-	650	14.2	34	-	700	15.3	0.4	-	1500	73.6	9.7	44	5500	269.8	0	3900	191.3	0	5300	260.0	0	2.7	0.0003	1.5770	0.5	0.0001	0.2162	9.6	0.0005	2.0311	0.1	0.0000	0.0362
6/1/07	1500	32.7	9.7	-	1500	32.7	8	-	400	8.7	38	-	500	10.9	0	-	1500	73.6	7	47	5300	260.0	0	5200	255.1	0	5700	279.7	0	2.7	0.0003	1.7207	2.2	0.0003	0.3347	10.8	0.0004	2.1829	0.0	0.0000	0.0362
6/22/07	1600	34.89	10	-	1500	32.71	1.2	-	450	9.813	22.9	-	600	13.08	0	-	1500	73.59	7.8	40	5800	284.6	2.3	5600	274.8	1.4	5200	255.13	0.9	2.828	0.00037	1.9071	0.336	4.12E-05	0.3555	6.412	0.000236	2.3018	0	0	0.0362
7/5/07	1700	37.1	9.6	-	3500	76.3	0.6	-	850	18.5	27	-	600	13.1	0	-	3200	157.0	6.8	41	5600	274.8	1.8	5500	269.8	1	5200	255.1	0	2.688	0.000373	2.0235	0.168	4.8E-05	0.3705	7.588	0.000527	2.4662	0	0	0.0362
7/14/07	1600	34.9	3.4	-	1700	37.1	0.2	-	500	10.9	15	-	600	13.1	0.1	-	1700	83.4	4.8	40	5300	260.0	0.4	5500	269.8	0.1	3900	191.3	0	0.952	0.000124	2.0504	0.056	7.78E-06	0.3722	4.284	0.000175	2.5040	0.028	1.37E-06	0.0365
7/20/07	1500	32.7	4.1	-	1500	32.7	0.2	-	400	8.7	18	-	600	13.1	0.1	-	1300	63.8	5	40	5400	264.9	0.4	5500	269.8	0.2	3900	191.3	0	1.148	0.000141	2.0707	0.056	6.86E-06	0.3732	5.068	0.000166	2.5278	0.028	1.37E-06	0.0367
7/30/07	1800	39.3	1.2	-	2800	61.1	0.7	-	900	19.6	15	-	650	14.2	0.2	-	3000	147.2	3.2	37	5000	245.3	1.9	5200	255.1	2.4	4200	206.1	1.4	0.336	4.94E-05	2.0825	0.196	4.48E-05	0.3839	4.144	0.000305	2.6009	0.056	2.97E-06	0.0374
8/6/07	2000	43.6	0.5	-	2500	54.5	0.3	-	600	13.1	12	-	600	13.1	0.1	-	3300	161.9	2.9	36	5400	264.9	2.8	5300	260.0	2.9	4300	211.0	0.8	0.14	2.29E-05	2.0864	0.084	1.72E-05	0.3868	3.36	0.000165	2.6286	0.028	1.37E-06	0.0376
8/23/07	2100	45.8	3.2	-	3500	76.3	0.6	-	1600	34.9	6.7	-	700	15.3	0.4	-	3400	166.8	2.3	51	5500	269.8	1.9	5500	269.8	1.8	4600	225.7	1.4	0.896	0.000154	2.1491	0.168	4.8E-05	0.4064	1.876	0.000245	2.7287	0.112	6.41E-06	0.0402
9/5/07	2000	43.6	0	42	3400	74.1	0	32	1500	32.7	16	44	650	14.2	0	42	2800	137.4	0.3	50	4000	196.3	0	6000	294.4	0	6000	294.4	0	0	0	2.1491	0	0	0.4064	4.508	0.000552	2.9010	0	0	0.0402
9/25/07	4500	98.1	0		5000	109.0	0		3800	82.9	0		1800	39.3	0		6500	318.9	0	45	5500	269.8	0	5000	245.3	0	5000	245.3	0	0.0	0.0000	2.1491	0.0	0.0000	0.4064	0.0	0.0000	2.9010	0.0	0.0000	0.0402
10/15/07	5000	109	0		5000	109	0		3800	82.9	0		2400	52.33	0		4000	196.3	0	45	7000	343.4	0	6000	294.4	0	5000	245.31	0	0	0	2.1491	0	0	0.4064	0	0	2.9010	0	0	0.0402
10/31/07	2200	47.97	0		2700	58.88	0		1400	30.53	0.4		600	13.08	0.1		3400	166.8	0.1	50	5400	264.9	0.2	5300	260	0.2	4600	225.69	0.1	0	0	2.1491	0	0	0.4064	0.112	1.28E-05	2.9059	0.028	1.37E-06	0.0408
11/12/07	3100	67.6	0		3800	82.86	0.1		1700	37.07	9.1		1100	23.99	0		4000	196.3	1.8	72	4800	235.5	1.2	5000	245.3	0.8	4000	196.25	0.5	0	0	2.1491	0.028	8.69E-06	0.4089	2.548	0.000354	3.0079	0	0	0.0408
11/26/07	2100	45.79	0		3400	74.14	0		900	19.63	11.3		800	17.44	0		3400	166.8	1.7	50	5100	250.2	0.8	5400	264.9	0.07	4300	210.97	0.3	0	0	2.1491	0	0	0.4089	3.164	0.000233	3.0860	0	0	0.0408
12/14/07	3100	67.6	0		3300	71.96	0.3		1000	21.81	21.4		1000	21.81	0.1		3700	181.5	2	48	5000	245.3	0.7	5600	274.8	0.05	4300	210.97	0.05	0	0	2.1491	0.084	2.26E-05	0.4187	5.992	0.00049	3.2975	0.028	2.29E-06	0.0417
12/26/07	3200	69.78	0		3400	74.14	0			0	0		2000	43.61			3200	157	0	45	4750	233	0	6000	294.4	0	5800	284.56	0	0	0	2.1491	0	0	0.4187	0	0	3.2975	0	0	0.0417
1/11/08	2900	63.24	0		3500	76.32	0		850	18.53	15.4		900	19.63	0		3400	166.8	0.8	45	5000	245.3	0.4	5600	274.8	0.2	5300	260.03	0.3	0	0	2.1491	0	0	0.4187	4.312	0.000299	3.4125	0	0	0.0417
1/29/08	2400	52.33	0		3300	71.96	0		800	17.44	0		800	17.44	0		3100	152.1	0	48	4900	240.4	0	5300	260	0.4	4400	215.88	0.2	0	0	2.1491	0	0	0.4187	0	0	3.4125	0	0	0.0417
2/28/08	1500	32.71	4.2		1600	34.89	8.6		700	15.26	101		450	9.813	4.8		1500	73.59	23.9		5700	279.7	5	6500	318.9	0	5500	269.84	0	1.176	0.000144	2.2529	2.408	0.000315	0.6453	28.28	0.001617	4.5770	1.344	4.94E-05	0.0773
3/27/08	2000	43.61	0		1700	37.07	0		850	18.53	0		500	10.9	0		2000	98.13	0	47	6000	294.4	0	6200	304.2	0	4500	220.78	0	0	0	2.2529	0	0	0.6453	0	0	4.5770	0	0	0.0773
4/15/08	1650	35.98	29		3000	65.42	7.9		2400	52.33	3.4		1200	26.17	23		2000	98.13	8.4	52	3600	176.6	16.7	4000	196.3	14.2	4200	206.06	13.9	8.12	0.001095	2.7520	2.212	0.000542	0.8926	0.952	0.000187	4.6621	6.44	0.000631	0.3652
4/24/08	1150	25.08	8		2100	45.79	1.6		2050	44.7	18.5		850	18.53	3.6		2900	142.3	6.6	51	3100	152.1	11.6	4100	201.2	7.5	3900	191.34	0	2.128	0.0002	2.7952	0.448	7.69E-05	0.9092	5.18	0.000868	4.8495	1.008	7E-05	0.3804
5/20/08	1100	23.99	0	27	1600	34.89	0	27	1400	30.53	0	27	1100	23.99	0	27	3200	157	0	58	4000	196.3	0	4000	196.3	0	3800	186.44	0	0	0	2.7952	0	0	0.9092	0	0	4.8495	0	0	0.3804
6/9/08	4000	87.22	29.3		3000	65.42	8.4		1600	34.89	5.2		2200	47.97	12.1		4000	196.3	27.2	51	4500	220.8	23.2	4500	220.8	21	4000	196.25	17.3	8.204	0.002681	4.0821	2.352	0.000576	1.1859	1.456	0.00019	4.9409	3.388	0.000609	0.6727
7/10/08	4000	87.22	0		3000	65.42	0		1000	21.81	0		1600	34.89	0		3800	186.4	0.4	51	4500	220.8	0.2	5000	245.3	0	5000	245.31	0	0	0	4.0821	0	0	1.1859	0	0	4.9409	0	0	0.6727
7/22/08	1600	34.89	8.3		3100	67.6	6.9		650	14.17	14		550	11.99	9.7		2400	117.8	6.4	41	5700	279.7		5300	260		5100	250.22		2.324	0.000304	4.1696	1.932	0.000489	1.3268	3.92	0.000208	5.0008	2.716	0.000122	0.7078
8/7/08	1500	32.71	11.4		3000	65.42	7		700	15.26	9.3		500	10.9	7.4		2400	117.8	6.4	53	5800	284.6	9.4	5800	284.6	1.2	5000	245.31	0.9	3.192	0.000391	4.3198	1.96	0.00048	1.5113	2.604	0.000149	5.0580	2.072	8.46E-05	0.7403
8/20/08	1500	32.71	0		2800	61.06	0		650	14.17	2.7		470	10.25	0		2600	127.6	0	47	5300	260	0	5700	279.7	0	5000	245.31	0	0	0	4.3198	0	0	1.5113	0.756	4.01E-05	5.0705	0	0	0.7403
9/8/08	3000	65.42	0.5		3	0.065	0.8		2600	56.69	2.8		1900	41.43	1.1		3000	147.2	1.5		6500	318.9	0.4	5000	245.3	1	4750	233.05	0.8	0.14	3.43E-05	4.3355	0.224	5.49E-08	1.5113	0.784	0.000167	5.1465	0.308	4.78E-05	0.7403

Notes:
Approx Conc. ppm / (24.45/MW) = ug/L Assume MW of TPH ~ 86.2 g/mol
Approx Recovery cfm * ug/L * 2.205E-9 lb/ug * 28.32 L/cu ft * 60 min/hr
Kurz meter not functioning on 3/29/2007 visit
System shut down on 3/7/2007 and 2/18/2008

Table 3
Soil Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Sample Date	Depth (ft bgs)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	BTEX (ug/kg)	MTBE (ug/kg)	TBA (ug/kg)	TPH-GRO (ug/kg)	TPH-DRO (mg/kg)
SB-1*	9/2/08	10	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 48	ND@ 120	ND@ 12
SB-2*	9/2/08	7-9	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 44	ND@ 120	ND@12
SB-3*	9/2/08	5-7	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 48	ND@ 120	ND@12
SB-4*	9/2/08	0-6	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	ND@12
SB-5*	9/2/08	5-7	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 46	ND@ 120	ND@12
SB-6*	9/2/08	0-5	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 44	ND@ 120	ND@12
SB-7*	9/2/08	0-5	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 46	ND@ 120	ND@12
SB-8*	9/2/08	14-16	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 46	ND@ 120	ND@12
P-1	9/8/08	2-3	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
P-2	9/8/08	2-3	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
P-3	9/12/08	2-3	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 48	ND@ 120	NA
P-4	9/12/08	2-3	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 50	ND@ 120	NA
P-5	9/12/08	2-3	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
P-6	10/9/08	2-3	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 49	ND@ 120	NA
TF-1*	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 46	ND@ 120	NA
TF-2*	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 45	ND@ 120	NA
TF-3*	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
TF-4*	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 45	ND@ 120	NA
TF-5*	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
TP-1	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 48	ND@ 120	NA
TP-2	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 43	ND@ 120	NA
TP-3	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	74@ 48	ND@ 120	NA
TP-4	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	790@ 220	ND@ 120	NA
TP-5	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
TP-6	10/8/08	16-17	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 48	ND@ 120	NA
TP-7	10/8/08	10-12	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
TP-8	10/8/08	10-12	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
TP-9	10/8/08	10-12	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 47	ND@ 120	NA
TP-10	10/8/08	10-12	ND@ 6	ND@ 6	ND@ 6	ND@ 18	BDL	ND@ 6	ND@ 46	ND@ 120	NA
MDE NON-RESIDENTIAL SOIL CLEANUP STD			**5**	**1,000**	**700**	**10,000**	**--**	**20**	**--**	**47,000**	**47**

BTEX - Total Benzene, Toluene, Ethylbenzene and Xylenes
MTBE - methyl tert-butyl ether
mg/kg - milligrams per kilogram
ND@x - not detected above laboratory detection level of x
TPH-GRO Total Petroleum Hydrocarbons Gasoline Range Organics
TPH-DRO Total Petroleum Hydrocarbons Diesel Range Organics
NA- Not Analyzed
BDL- Below Detection Limits
* - Soil characterization of new tank field

Table 4
Initial Pilot Test Monitoring Summary
7-Eleven Store No. 22281
Fallston, MD

Well	Date	*Monthly*			*Prior to, at the mid-point, and after completion of the pilot test program*									
		Nitrate (mg/L)	**Nitrate (mg/L)**	**Ortho-phosphate (mg/L)**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethyl-benzene (µg/L)**	**Xylenes (µg/L)**	**BTEX (µg/L)**	**MTBE (µg/L)**	**TBA (µg/L)**	**TAME (µg/L)**	**TPH-GRO (µg/L)**	**DO (µg/L)**
		EPA 353.3	EPA 353.4	EPA 365.2	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8015C	mg/L
MW-4A	11/24/08	5.3	ND@0.2	ND@0.2	**7**	ND@0	ND@1	3	10	**13000**	12000	580	7900	#REF!
	1/19/09	3.6	ND@0.2	ND@0.2	**5**	ND@1	ND@1	2	7	**12000**	7600	370	2400	#REF!
	2/16/09	660	ND@0.2	22.0	ND@1	ND@1	ND@1	ND@3	ND	**2400**	1200	60	540	*
	4/30/09	170	ND@0.2	34.0	2	ND@1	ND@1	ND@3	2	6400	3500	180	1300	5.12
MW-4B	11/24/08	11	ND@0.2	ND@0.2	ND@1	ND@1	ND@1	ND@3	ND	9	ND@20	ND@10	ND@100	#REF!
	1/19/09	6.8	ND@0.2	ND@0.2	ND@1	ND@1	ND@1	ND@3	ND	6	ND@20	ND@10	ND@100	#REF!
	2/16/09	13	ND@0.2	1.1	ND@1	ND@1	ND@1	ND@3	ND	7	ND@20	ND@10	ND@100	*
	4/30/09	13.0	ND@0.2	ND@0.2	ND@1	ND@1	ND@1	ND@3	ND	9	ND@20	ND@10	ND@100	6.37
MW-6	11/24/08	4.2	ND@0.2	ND@0.2	ND@1	ND@1	ND@1	ND@3	ND	**1900**	380	130	930	#REF!
	1/19/09	4.1	ND@0.2	ND@0.2	ND@1	ND@1	ND@1	ND@3	ND	**3300**	250	210	840	#REF!
	2/16/09	5.6	ND@0.2	0.3	ND@1	ND@1	ND@1	ND@3	ND	2600	200	160	440	*
	4/30/09	6.1	ND@0.2	ND@0.2	ND@1	ND@1	ND@1	ND@3	ND	1300	200	79	320	3.64
HW-3	11/24/08	6.1	ND@0.2	ND@0.2	**6**	ND@1	ND@1	4	10	**9700**	1700	820	6100	#REF!
	1/19/09	6.3	ND@0.2	ND@0.2	3	ND@1	ND@1	1	4	**8200**	640	580	1900	#REF!
	2/16/09	7.5	ND@0.2	0.2	1	ND@1	ND@1	ND@3	ND	7500	640	540	1300	*
	4/30/09	8.5	ND@0.2	ND@0.2	1	ND@1	ND@1	ND@3	1	4900	260	370	1100	4.02
MDE CLEANUP STD					**5**	**1,000**	**700**	**10,000**	**--**	**20**	--	--	**47,000**	

BTEX - Total Benzene, Toluene, Ethylbenzene and Xylenes
MTBE - methyl tert-butyl ether
mg/kg - milligrams per kilogram
µg/L - micrograms per liter
ND@x - not detected above laboratory detection level of x
TPH-GRO Total Petroleum Hydrocarbons Gasoline Range Organics
TPH-DRO Total Petroleum Hydrocarbons Diesel Range Organics
*meter malfunction; no dissolved oxygen readings for this date

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-1A	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.56
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.50
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	1	ND@10	ND@10	ND@100	ND@0.5
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	1	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-1B	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	11	ND@25	ND@25	ND@100	ND@0.5
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	12	ND@25	ND@25	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	6	ND@25	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	3	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	6	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	6	ND@10	ND@10	ND@100	ND@0.5
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-2	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	3	ND@25	ND@25	ND@100	ND@0.56
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	**37**	ND@25	ND@25	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	**49**	28	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	**52**	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	**31**	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	**27**	ND@10	ND@10	ND@100	ND@0.5
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	12	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	9	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	5	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	5	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	5	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	4	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	12/23/09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	1.2	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-3A	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	**2400**	1700	110	**2700**	ND@0.5
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	**260**	120	ND@25	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	**37**	ND@25	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	3	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	2	ND@10	ND@10	ND@100	ND@0.5
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-3B	2/16/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	2/22/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	**2.5**
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-4A	7/26/05	**11**	ND@1	ND@1	10	21	**31,000**	25,000	E 2,200	**30,000**	ND@0.5
	11/22/05	**15**	ND@1	ND@1	10	25	**42,000**	29,000	3,200	NA	NA
	3/16/06	ND@5	ND@5	ND@5	ND@10	0	**20,000**	9,900	940	**2,100**	ND@0.5
	6/30/06	**14**	3	ND@1	12	29	**E 3,300**	E 3,400	E 560	**2,000**	LF 0.52
	9/12/06	**34**	9	ND@1	25	68	**20,000**	E 21,000	E 630	**2,900**	ND@0.5
	12/7/06	**30**	ND@5	ND@5	11	41	**27,000**	32000	780	**3,000**	LF 0.72
	3/28/07	**8**	ND@1	ND@1	6	14	**E 37,000**	E 41,000	E 490	**2,500**	**0.7**
	6/22/07	**8**	ND@1	ND@1	10	18	**E 12,000**	E 5,300	E 480	**2,500**	ND@0.5
	9/25/07	**7**	ND@1	ND@1	6	13	**E 11,000**	E 4,500	E 560	**1,500**	ND@0.5
	12/14/07	**7**	ND@1	ND@1	6	13	**E 7,600**	ND@10	E 460	**1,700**	ND@0.5
	3/14/08	ND@100	ND@100	ND@100	ND@300	ND	**15,000**	11,000	ND@1,000	**20,000**	ND@0.5
	6/18/08	ND@50	ND@50	ND@50	ND@150	ND	**8,100**	4,500	ND@500	**1,500**	ND@0.5
	9/3/08	**7**	ND@1	ND@1	ND@3	7	**8,200**	11,000	460	**4,400**	ND@0.5
	12/23/08	ND@100	ND@100	ND@100	ND@300	ND	**15,000**	9,500	ND@1,000	**6,000**	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	**4,900**	4,100	130	**720**	NA
	6/8/09	2	ND@1	ND@1	ND@3	2	**5,100**	2,900	150	**1,600**	NA
	9/27/09	3	ND@1	ND@1	1	4	**6,600**	3,700	220	**9,100**	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	**1,500**	660	54	**1,900**	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	**1,500**	470	55	**1,400**	NA
	5/6/10	ND@1	ND@1	ND@1	ND@3	ND	**150**	61	ND@10	**120**	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	**23**	ND@20	ND@10	ND@100	NA
	7/31/10	ND@1	ND@1	ND@1	ND@3	ND	**35**	ND@20	ND@10	ND@100	NA
	8/16/10	ND@1	ND@1	ND@1	ND@3	ND	**55**	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	`	ND@1	ND@3	ND	**740**	340	36	**1,100**	NA
	10/26/10	ND@1	ND@1	ND@1	ND@3	ND	**730**	210	ND@10	**810**	NA
	11/23/10	ND@1	ND@1	ND@1	ND@3	ND	**870**	210	41	**850**	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	420	56	**1,400**	NA
	2/28/11	ND@1	ND@1	ND@1	ND@3	ND	**860**	90	45	**850**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**370**	86	15	**280**	NA
	4/26/11	ND@1	ND@1	ND@1	ND@3	ND	**390**	82	18	**530**	NA
	5/25/11	ND@1	ND@1	ND@1	ND@3	ND	**220**	ND@20	ND@10	**200**	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	ND@20	48	**1,100**	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	**210**	39	ND@10	**150**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**150**	ND@20	ND@10	**150**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**560**	120	33	**870**	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**410**	58	17	**460**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**400**	110	18	**490**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**390**	97	22	**490**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**770**	180	28	**690**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**660**	210	30	**760**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**620**	260	21	**630**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**300**	53	ND@10	**250**	NA

Table 5
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7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-4B	2/16/06	ND@1	ND@1	ND@1	ND@3	ND	16	ND@25	ND@25	ND@100	ND@0.5
	2/22/06	ND@1	ND@1	ND@1	ND@3	ND	16	ND@25	ND@25	ND@100	ND@0.5
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	13	ND@25	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	7	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	6	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	**21**	ND@10	ND@10	ND@100	ND@0.5
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	7	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	3	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	8	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	6	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	5	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	12	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	13	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	18	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	4	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	4	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	5	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	11	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	6	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	13	ND@20	ND@10	ND@100	NA
	7/31/10	ND@1	ND@1	ND@1	ND@3	ND	11	ND@20	ND@10	ND@100	NA
	8/16/10	ND@1	ND@1	ND@1	ND@3	ND	11	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	12	ND@20	ND@10	ND@100	NA
	10/26/10	ND@1	ND@1	ND@1	ND@3	ND	14	ND@20	ND@10	ND@100	NA
	11/23/10	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	2/28/11	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	4	ND@20	ND@10	ND@100	NA
	4/26/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	5/25/11	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	5	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	5.3	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	3.3	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	3.3	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	1.7	21	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	2.1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	1.6	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

Table 5
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7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-5	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	10	ND@25	ND@25	ND@100	ND@0.5
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	15	ND@25	ND@25	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	**76**	44	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	11	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	**27**	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@1	ND@3	ND	15	ND@10	ND@10	ND@100	ND@0.5
	3/28/07	ND@1	ND@1	ND@1	ND@3	ND	3	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	3	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	4	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@1	ND@3	ND	5	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@1	ND@3	ND	7	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	9	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	7	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	**32**	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	15	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	8	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	5	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	5	24	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	4	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	3	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	1.7	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	1.5	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	1.4	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	1.5	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	1.1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	1.1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

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7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-6	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	**760**	560	28	**840**	ND@0.5
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	**1,900**	990	77	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	**1,300**	650	48	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	**E 860**	59	48	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	78	52	ND@100	ND@0.5
	12/7/06	ND@10	ND@10	ND@10	ND@30	ND	**2,400**	140	110	**140**	ND@0.5
	3/28/07	ND@100	ND@100	ND@100	ND@300	ND	**1,100**	ND@1,000	ND@1,000	**110**	ND@0.5
	6/22/07	ND@1	ND@1	ND@1	ND@3	ND	**E 1,000**	78	62	**130**	ND@0.5
	9/25/07	ND@1	ND@1	ND@1	ND@3	ND	**E 1,200**	120	65	**150**	ND@0.5
	12/14/07	2	ND@1	ND@1	ND@3	2	**E 3,800**	E 330	E 350	**600**	ND@0.5
	3/14/08	ND@50	ND@50	ND@50	ND@350	ND	**3,000**	ND@500	ND@500	**3,700**	ND@0.5
	6/18/08	ND@10	ND@10	ND@10	ND@30	ND	**2,200**	ND@200	120	**510**	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	210	84	**300**	ND@0.5
	12/27/08	ND@10	ND@10	ND@10	ND@30	ND	**3,600**	320	260	**1,700**	ND@0.5
	3/24/09	ND@10	ND@10	ND@10	ND@30	ND	**2,100**	230	120	**360**	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	**2,600**	230	170	**810**	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	**1,600**	170	99	**2,300**	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	190	78	**1,500**	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	**330**	87	18	**330**	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	**670**	210	29	**590**	NA
	7/31/10	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	290	71	**1,800**	NA
	8/16/10	ND@1	ND@1	ND@1	ND@3	ND	**1,700**	310	84	**2,300**	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	**1,700**	750	78	**2,000**	NA
	10/26/10	ND@1	ND@1	ND@1	ND@3	ND	**2,400**	900	130	**2,800**	NA
	11/23/10	ND@1	ND@1	ND@1	ND@3	ND	**2,400**	940	130	**3,400**	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	**2,200**	920	87	**2,100**	NA
	2/28/11	ND@1	ND@1	ND@1	ND@3	ND	**2,400**	1,200	130	**2,400**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**2,300**	1,000	99	**1,800**	NA
	4/26/11	ND@1	ND@1	ND@1	ND@3	ND	**2,500**	800	120	**3,500**	NA
	5/25/11	ND@1	ND@1	ND@1	ND@3	ND	**2,200**	390	100	**2,900**	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	**1,700**	ND@20	75	**2,000**	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	350	50	**850**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**2,300**	630	110	**1,600**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**1,300**	320	60	**1,700**	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**1,300**	330	53	**1,300**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**1,600**	490	68	**1,400**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	230	65	**1,500**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**810**	78	34	**660**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**750**	48	35	**820**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**690**	190	31	**680**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**540**	48	21	**470**	NA

Table 5
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Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-7	7/26/05	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.56
	11/22/05	ND@1	ND@1	ND@1	ND@3	ND	ND@1	34	ND@25	NA	NA
	3/16/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	6/30/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	9/12/06	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@25	ND@25	ND@100	ND@0.5
	12/7/06	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	**0.94**
	3/28/07	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	12/23/08	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	1	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	13	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	ND@1	ND@20	ND@10	ND@100	NA

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Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-8A	3/28/07	ND@1	1	ND@100	ND@3	1	**44**	ND@10	ND@10	ND@100	ND@0.5
	6/22/07	ND@1	ND@1	ND@100	ND@3	ND	9	ND@10	ND@10	ND@100	ND@0.5
	9/25/07	ND@1	ND@1	ND@100	ND@3	ND	3	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@100	ND@3	ND	ND@1	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@100	ND@3	ND	3	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	ND@0.5
	12/27/08	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	4	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	2	ND@20	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	5	ND@20	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	7	ND@20	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	17	ND@20	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	13	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	**24**	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	9	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**21**	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	**30**	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	**30**	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**33**	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**32**	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	19	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	2.1	ND@1	ND@3	2.1	**43**	ND@20	ND@10	ND@100	NA
	12/612	ND@1	ND@1	ND@1	ND@3	ND	**38**	ND@20	ND@10	ND@100	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**32**	ND@20	ND@10	ND@100	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**28**	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**25**	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	15	ND@20	ND@10	ND@100	NA
MW-8B	10/15/07	ND@1	1	ND@1	ND@3	1	14	ND@10	ND@10	ND@100	ND@0.5
	12/14/07	ND@1	ND@1	ND@100	ND@3	ND	15	ND@10	ND@10	ND@100	ND@0.5
	3/14/08	ND@1	ND@1	ND@100	ND@3	ND	16	ND@10	ND@10	ND@100	ND@0.5
	6/18/08	ND@1	ND@1	ND@1	ND@3	ND	**24**	ND@20		ND@100	ND@0.5
	9/3/08	ND@1	ND@1	ND@1	ND@3	ND	**28**	ND@20	ND@10	ND@100	ND@0.5
	12/27/08	ND@1	ND@1	ND@1	ND@3	ND	**23**	ND@20	ND@10	ND@100	ND@0.5
	3/24/09	ND@1	ND@1	ND@1	ND@3	ND	**39**	ND@20	ND@10	ND@100	NA
	6/8/09	ND@1	ND@1	ND@1	ND@3	ND	**64**	25	ND@10	ND@100	NA
	9/27/09	ND@1	ND@1	ND@1	ND@3	ND	**77**	31	ND@10	ND@100	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	**93**	31	ND@10	ND@100	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	**100**	33	ND@10	ND@100	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	**56**	ND@20	ND@10	ND@100	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	**65**	ND@20	ND@10	ND@100	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	**56**	ND@20	ND@10	ND@100	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**34**	ND@20	ND@10	ND@100	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	**29**	ND@20	ND@10	ND@100	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	**22**	ND@20	ND@10	ND@100	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**28**	ND@20	ND@10	ND@100	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**22**	ND@20	ND@10	ND@100	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	12	ND@20	ND@10	ND@100	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	18	ND@20	ND@10	ND@100	NA
	12/6/12	ND@1	280	ND@1	ND@3	280	15	ND@20	ND@10	**670**	NA
	3/11/13	ND@1	75	ND@1	ND@3	75	17	ND@20	ND@10	**150**	NA
	6/6/13	ND@1	2.1	ND@1	ND@3	2.1	17	ND@20	ND@10	ND@100	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	14	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	7.1	ND@20	ND@10	ND@100	NA

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MW-9	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	**1,800**	490	75	**1,600**	NA
	5/6/10	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	330	52	**1,300**	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	**990**	290	33	**910**	NA
	7/31/10	ND@1	ND@1	ND@1	ND@3	ND	**1,600**	480	71	**2,100**	NA
	8/16/10	ND@1	ND@1	ND@1	ND@3	ND	**1,300**	350	49	**1,600**	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	**990**	340	34	**1,100**	NA
	10/26/10	ND@1	ND@1	ND@1	ND@3	ND	**1,300**	500	52	**1,400**	NA
	11/23/10	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	360	50	**1,300**	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	470	48	**1,400**	NA
	2/28/11	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	190	57	**1,300**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	340	42	**850**	NA
	4/26/11	ND@1	ND@1	ND@1	ND@3	ND	**1,300**	320	59	**1,800**	NA
	5/25/11	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	150	53	**1,500**	NA
	6/29/11	ND@1	ND@1	ND@1	ND@3	ND	**1,600**	200	68	**1,700**	NA
	9/22/11	ND@1	ND@1	ND@1	ND@3	ND	**2,200**	690	ND@100	**1,300**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**2,000**	560	95	**1,500**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**1,800**	790	81	**2,300**	NA
	6/5/12	1.3	ND@1	ND@1	ND@3	ND	**3,900**	1,600	160	**3,800**	NA
	9/12/12	1.1	ND@1	ND@1	ND@3	1.1	**2,500**	1,200	130	**2,700**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**1,600**	840	90	**1,900**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**2,500**	1,100	97	**2,000**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**2,000**	920	83	**2,100**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**2,300**	1,500	100	**2,100**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**950**	360	35	**730**	NA
MW-10	3/10/10	**6**	ND@1	ND@1	11	17	**17,000**	5,400	810	**18,000**	NA
	5/6/10	3	ND@1	1	4	8	**8,300**	2,800	350	**10,000**	NA
	6/7/10	1	ND@1	ND@1	1	2	**4,700**	1,700	350	**5,200**	NA
	7/31/10	1	ND@1	ND@1	2	3	**6,600**	4,200	330	**8,500**	NA
	8/16/10	2	ND@1	ND@1	2	4	**6,600**	3,600	330	**9,200**	NA
	9/20/10	1	ND@1	ND@1	1	2	**5,600**	5,700	250	**6,900**	NA
	10/26/10	1	ND@1	ND@1	1	2	**6,100**	6,600	280	**7,100**	NA
	11/23/10	2	ND@1	ND@1	3	5	**7,700**	4,800	410	**9,400**	NA
	12/20/10	2	ND@1	ND@1	4	6	**11,000**	9,600	470	**12,000**	NA
	2/28/11	ND@1	ND@1	ND@1	ND@3	ND	**8,300**	5,200	530	**11,000**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**5,700**	4,600	240	**5,900**	NA
	4/26/11	2	ND@1	ND@1	3	5	**5,600**	6,000	290	**8,000**	NA
	5/25/11	2	ND@1	ND@1	3	5	**5,800**	6,000	270	**7,500**	NA
	6/29/11	ND@5	ND@5	ND@5	ND@15	ND	**4,100**	4,400	180	**4,800**	NA
	9/22/11	ND@20	ND@20	ND@20	ND@60	ND	**2,700**	1,700	180	**1,800**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**2,700**	2,900	120	**1,900**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	1,100	51	**1,500**	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**1,000**	920	34	**1,100**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**1,000**	1,000	41	**1,100**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**1,000**	1,500	50	**1,100**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**880**	1,300	37	**750**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**520**	810	23	**660**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**370**	710	16	**380**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**440**	610	17	**390**	NA

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
MW-11	1/5/11	**6**	ND@1	ND@1	14	20	**11,000**	14,000	660	**16,000**	NA
	3/22/11	4	ND@1	ND@1	7	11	**8,800**	9,600	440	**10,000**	NA
	4/26/11	2	ND@1	ND@1	3	5	**5,800**	7,200	300	**7,600**	NA
	5/25/11	1	ND@1	ND@1	1	2	**3,900**	3,500	200	**5,200**	NA
	6/29/11	ND@5	ND@5	ND@5	ND@15	ND	**4,000**	4,300	170	**4,400**	NA
	9/22/11	ND@20	ND@20	ND@20	ND@60	ND	**3,300**	2,300	ND@200	**1,900**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**2,200**	2,700	91	**1,500**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	1,300	51	**1,500**	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**900**	1,100	30	**950**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	2,400	61	**1,500**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	2,800	76	**1,500**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	3,700	47	**940**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**590**	1,700	25	**690**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**450**	1,200	21	**480**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**640**	1,700	26	**560**	NA
MW-12	1/5/11	ND@1	ND@1	ND@1	ND@3	ND	**560**	56	20	**670**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**420**	84	13	**340**	NA
	4/26/11	ND@1	ND@1	ND@1	ND@3	ND	**530**	94	18	**700**	NA
	5/25/11	ND@1	ND@1	ND@1	ND@3	ND	**520**	390	17	**660**	NA
	6/29/11	ND@5	ND@5	ND@5	ND@15	ND	**540**	110	ND@50	**610**	NA
	9/22/11	ND@5	ND@5	ND@5	ND@15	ND	**380**	ND@100	ND@50	**270**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**490**	88	14	**400**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**380**	120	12	**490**	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**240**	46	ND@10	**300**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**220**	61	ND@10	**240**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**160**	32	ND@10	**170**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**160**	72	ND@10	**130**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**140**	ND@20	ND@10	**150**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**70**	ND@20	ND@10	ND@100	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	13	ND@20	ND@10	ND@100	NA
MW-13	1/5/11	ND@1	ND@1	ND@1	ND@3	ND	**590**	70	25	**660**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**510**	96	19	**410**	NA
	4/26/11	ND@1	ND@1	ND@1	ND@3	ND	**560**	99	24	**730**	NA
	5/25/11	ND@1	ND@1	ND@1	ND@3	ND	**700**	42	28	**880**	NA
	6/29/11	ND@5	ND@5	ND@5	ND@15	ND	**770**	ND@100	ND@50	**750**	NA
	9/22/11	ND@5	ND@5	ND@5	ND@15	ND	**850**	170	ND@50	**530**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	92	47	**840**	NA
	3/1/12	ND@1	ND@1	ND@1	ND@3	ND	**1,600**	210	82	**2,000**	NA
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**1,200**	130	53	**1,400**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**1,000**	150	44	**1,100**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**770**	450	40	**900**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**1,000**	180	50	**940**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**860**	290	39	**1,000**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**880**	280	41	**840**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**570**	180	21	**450**	NA
HW-1	3/16/06	**100**	880	ND@5	1,690	2,670	**3,700**	1,800	ND@130	**41,000**	**3.6**
	6/30/06	**8**	E 380	170	E 790	178	**62**	56	ND@25	**2,700**	LF/DF 2
	9/12/06	*Not Sampled, Well Dry									
	12/7/06	*Not Sampled, Well Dry									
	3/28/07	*Not Sampled, Well Dry									
	6/13/07	*Not Sampled, Well Dry									
	9/25/07	*Not Sampled, Well Dry									
	12/14/07	*Not Sampled, Well Dry									
	3/14/08	*Not Sampled, Well Dry									
	6/18/08	*Not Sampled, Well Dry									
	9/3/08	*Not Sampled, Well Dry									
	12/23/08	*Not Sampled; well destroyed during 10/08 UST excavation activities									

Table 5
Monitoring Well Groundwater Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	TPH-GRO (µg/L)	TPH-DRO (mg/L)
HW-2	3/16/06	*Not Sampled, Well Dry									
	6/30/06	*Not Sampled, Well Dry									
	9/12/06	*Not Sampled, Well Dry									
	12/7/06	*Not Sampled, Well Dry									
	3/28/07	*Not Sampled, Well Dry									
	6/13/07	*Not Sampled, Well Dry									
	9/25/07	*Not Sampled, Well Dry									
	12/14/07	*Not Sampled, Well Dry									
	3/14/08	*Not Sampled, Well Dry									
	6/18/08	*Not Sampled, Well Dry									
	9/3/08	*Not Sampled, Well Dry									
	12/23/08	*Not Sampled, Well Dry									
	3/24/09	*Not Sampled, Well Dry									
	6/8/09	*Not Sampled, Well Dry									
	9/27/09	*Not Sampled, Well Dry									
	12/23/09	*Not Sampled, Well Dry									
	3/10/10	*Not Sampled, Well Dry									
	6/7/10	*Not Sampled, Well Dry									
HW-3	1/23/07	2	ND@1	ND@1	ND@3	2	**6,600**	230	250	**510**	ND@0.5
	3/28/07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/22/07	4	ND@1	ND@1	3	7	**5,800**	440	380	**900**	ND@0.5
	9/25/07	**6**	ND@1	ND@1	4	10	**E 7,200**	E 730	E 660	**1,600**	ND@0.5
	12/14/07	4	ND@1	ND@1	2	6	**E 6,300**	E 470	E600	**1,100**	ND@0.5
	3/14/08	ND@50	ND@50	ND@50	ND@350	ND	**7,100**	ND@500	ND@500	**9,000**	ND@0.5
	6/18/08	ND@50	ND@50	ND@50	ND@350	ND	**7,700**	ND@1000	ND@500	**1,500**	ND@0.5
	9/3/08	5	ND@1	ND@1	3	8	**6,500**	E 750	E 750	**3,100**	ND@0.5
	12/27/08	ND@10	ND@10	ND@10	ND@30	ND	**7,600**	530	590	**2,700**	ND@0.5
	3/24/09	2	ND@1	ND@1	1	3	**9,000**	790	660	**1,500**	NA
	6/8/09	2	ND@1	ND@1	ND@3	2	**7,000**	490	600	**2,500**	NA
	9/27/09	1	ND@1	ND@1	ND@3	1	**6,600**	380	510	**10,000**	NA
	12/23/09	ND@1	ND@1	ND@1	ND@3	ND	**3,800**	230	310	**4,700**	NA
	3/10/10	ND@1	ND@1	ND@1	ND@3	ND	**3,400**	880	240	**4,300**	NA
	5/6/10	ND@1	ND@1	ND@1	ND@3	ND	**3,000**	900	230	**4,000**	NA
	6/7/10	ND@1	ND@1	ND@1	ND@3	ND	**1,400**	370	110	**1,400**	NA
	7/31/10	ND@1	ND@1	ND@1	ND@3	ND	**4,900**	580	420	**7,000**	NA
	8/16/10	1	ND@1	ND@1	ND@3	ND	**5,900**	740	490	**8,600**	NA
	9/20/10	ND@1	ND@1	ND@1	ND@3	ND	**490**	54	34	**590**	NA
	10/26/10	ND@1	ND@1	ND@1	ND@3	ND	**3,900**	580	330	**4,500**	NA
	11/23/10	ND@1	ND@1	ND@1	ND@3	ND	**4,400**	760	350	**5,200**	NA
	12/20/10	ND@1	ND@1	ND@1	ND@3	ND	**6,500**	1,200	440	**7,400**	NA
	2/28/11	ND@1	ND@1	ND@1	ND@3	ND	**4,600**	930	410	**5,900**	NA
	3/22/11	ND@1	ND@1	ND@1	ND@3	ND	**4,500**	1,400	290	**4,200**	NA
	6/29/11	ND@5	ND@5	ND@5	ND@15	ND	**5,600**	1,000	330	**7,300**	NA
	9/22/11	ND@20	ND@20	ND@20	ND@60	ND	**3,200**	940	ND@200	**2,700**	NA
	12/8/11	ND@1	ND@1	ND@1	ND@3	ND	**3,100**	1,100	170	**2,800**	NA
	3/1/12	Inadvertently Not Sampled*									
	6/5/12	ND@1	ND@1	ND@1	ND@3	ND	**3,600**	1,200	210	**3,900**	NA
	9/12/12	ND@1	ND@1	ND@1	ND@3	ND	**3,600**	1,800	160	**3,600**	NA
	12/6/12	ND@1	ND@1	ND@1	ND@3	ND	**940**	460	49	**960**	NA
	3/11/13	ND@1	ND@1	ND@1	ND@3	ND	**500**	190	24	**510**	NA
	6/6/13	ND@1	ND@1	ND@1	ND@3	ND	**1,100**	450	52	**1,200**	NA
	9/12/13	ND@1	ND@1	ND@1	ND@3	ND	**1,000**	950	38	**810**	NA
	12/18/13	ND@1	ND@1	ND@1	ND@3	ND	**620**	480	21	**440**	NA
MDE CLEANUP STD		**5**	**1,000**	**700**	**10,000**	**--**	**20**	--	--	**47**	**0.047**

BTEX - Total Benzene, Toluene, Ethylbenzene and Xylenes
MTBE - methyl tert-butyl ether
µg/L - micrograms-per-liter
mg/L - milligrams-per-liter
* Well not sampled due to insufficient amount of water

ND@x - not detected above laboratory detection level of x
ND - not detected
NA - not analyzed
E - estimated value, exceeds calibration range of laboratory equipment
LF - lighter fuel/oil pattern observed in sample

Table 6
Second Pilot Test
Nutrient Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Well	Date	Nitrate (mg/L)	Nitrite (mg/L)	Orthophosphate (mg/L)
MW-4A	5/6/2010	290	6.3	246
	8/16/2010	2500	1.6	131
	9/20/2010	200	0.3	265
	10/26/2010	0	0	0
	11/23/2010	0	0	0
	12/20/2010	42.7	ND@0.1	116
	2/28/2011	45	0.1	213
	3/22/2011	86	ND@0.1	52.4
	4/26/2011	83	ND@0.1	40.9
	5/25/2011	350	ND@0.1	437
	6/29/2011	110	0.2	341
MW-4B	8/16/2010	15	ND@0.1	ND@0.15
	9/20/2010	14	ND@0.1	ND@0.15
	10/26/2010	14	ND@0.1	ND@0.15
	11/23/2010	0	0	0
	12/20/2010	13.5	ND@0.1	ND@0.15
	2/28/2011	12	ND@0.1	ND@0.15
	3/22/2011	13	ND@0.1	ND@0.15
	4/26/2011	13	ND@0.1	ND@0.15
	5/25/2011	13	ND@0.1	ND@0.15
	6/29/2011	13	ND@0.1	ND@0.15
MW-9	5/6/2010	12	0.2	3.8
	6/7/2010	0	0	0
	7/31/2010	0	0	0
	8/16/2010	770	0.7	29.7
	9/20/2010	260	0.1	16.4
	10/26/2010	0	0	0
	11/23/2010	0	0	0
	12/20/2010	121	ND@0.1	228
	2/28/2011	50	ND@0.1	67.1
	3/22/2011	59	ND@0.1	20.4
	4/26/2011	59	ND@0.1	13.6
	5/25/2011	76	ND@0.1	13.1
	6/29/2011	47	0.2	19.7
MW-10	3/10/2010	0	0	0
	5/6/2010	23	1.1	14.3
	6/7/2010	0	0	0
	7/31/2010	0	0	0
	8/16/2010	350	0.5	16.7
	9/20/2010	290	0.4	10.6
	10/26/2010	0	0	0
	11/23/2010	0	0	0
	12/20/2010	120	ND@0.1	181
	2/28/2011	56	ND@0.1	41.2
	3/22/2011	46	ND@0.1	23.7
	4/26/2011	26	ND@0.1	19.1
	5/25/2011	210	ND@0.1	213
	6/29/2011	74	0.2	57

Table 6
Second Pilot Test
Nutrient Analytical Results
7-Eleven Store No. 22281
Fallston, Maryland

Well	Date	Nitrate (mg/L)	Nitrite (mg/L)	Orthophosphate (mg/L)
MW-11	1/5/2011	0	0	0
	3/22/2011	16	ND@0.1	ND@0.15
	4/26/2011	11	ND@0.1	ND@0.15
	5/25/2011	11	ND@0.1	2.95
	6/29/2011	14	0.1	104
MW-12	1/5/2011	0	0	0
	3/22/2011	8.2	ND@0.1	ND@0.15
	4/26/2011	8.5	ND@0.1	ND@0.15
	5/25/2011	8.4	ND@0.1	0.26
	6/29/2011	11	0.1	31.1
MW-13	1/5/2011	0	0	0
	3/22/2011	39	ND@0.1	ND@0.15
	4/26/2011	33	ND@0.1	ND@0.15
	5/25/2011	36	0.1	ND@0.15
	6/29/2011	65	6	121
HW-3	5/6/2010	66	5.9	93.2
	6/7/2010	0	0	0
	7/31/2010	0	0	0
	8/16/2010	1100	1.1	79.5
	9/20/2010	600	0.5	40.1
	10/26/2010	0	0	0
	11/23/2010	0	0	0
	12/20/2010	316	0.4	465
	2/28/2011	24	ND@0.1	100
	3/22/2011	45	ND@0.1	37.4
	6/29/2011	8.7	ND@0.1	9.16

mg/L - milligrams-per-liter

Table 7
Second Pilot Test
Dissolved Oxygen Concentrations
7-Eleven Store No. 22281
Fallston, Maryland

	Dissolved Oxygen Concentrations (mg/L)						
Date	**MW-4A**	**MW-9**	**MW-10**	**HW-3**	**MW-11**	**MW-12**	**MW-13**
3/10/2010	1.59	0.73	0.55	5.89	--	--	--
4/8/2010	2.04	0.76	0.66	4.9	--	--	--
5/21/2010	1.67	1.53	1.29	7.04	--	--	--
6/7/2010	0.51	0.84	0.27	2.5	--	--	--
7/31/2010	0.27	0.46	0.43	0.18	--	--	--
8/16/2010	0.28	0.44	0.19	0.17	--	--	--
9/20/2010	0.08	2.68	2.45	0.44	--	--	--
10/26/2010	0.23	0.19	0.15	0.14	--	--	--
11/23/2010	0.15	0.21	0.12	0.28	--	--	--
12/20/2010	0.27	0.22	0.52	0.54	--	--	--
1/5/2011	1.11	0.2	0.16	NS	--	--	--
2/3/2011	2.66	0.4	0.29	NS	0.17	0.26	0.31
2/17/2011	32.1	37.4	0.62	NS	0.36	0.31	0.26
2/25/2011	25.44	27.45	0.39	0.33	0.19	0.65	0.9
2/28/2011	25.14	25.62	23.36	0.76	0.24	1.11	0.71
3/7/2011	18.16	15.78	9.72	0.93	0.27	1.51	0.89
3/15/2011	4.4	6.23	6.21	0.87	0.8	1.71	3.32
3/22/2011	10.95	9.68	9.71	0.73	1.54	1.44	3.65
3/29/2011	3.15	3.13	2.82	0.67	0.58	0.87	2.42
4/5/2011	24.7	21.6	NS	18.2	NS	NS	20.9
4/26/2011	21.55	0.21	0.3	NS	0.25	0.24	5.55
5/25/2011	50	48.22	50	NS	0.26	0.4	0.27
6/29/2011	1.11	0.48	19.74	0.4	0.17	0.34	0.25

Table 8

Third Pilot Test Nutrient Analytical Results

7-Eleven Store No. 22281 Fallston, Maryland

Sample ID	Date	Nitrate (mg/L)	Nitrite (mg/L)	Orthophoshate (mg/L)
MW-6	2/14/2013	73	0.21	BDL
	3/11/2013	74	0.26	2.02
	6/6/2013	190	0.14	BDL
MW-9	2/14/2013	15	0.15	1.42
	3/11/2013	17	0.2	0.32
	6/6/2013	23	BDL	2.32
MW-11	2/14/2013	7.8	0.17	0.17
	3/11/2013	8.3	0.18	2.19
	6/6/2013	7.9	BDL	0.15
MW-13	2/14/2013	28	0.19	2.44
	3/11/2013	19	0.22	1.02
	6/6/2013	28	BDL	1.87
HW-3	2/14/2013	850	3.3	745
	3/11/2013	880	7.9	746
	6/6/2013	960	3.3	764

mg/L - milligrams per liter

BDL - Below Laboratory Detection Limits

Table 9
Third Pilot Test Dissolved Oxygen Concentrations
7-Eleven Store No. 22281
Fallston, Maryland

Sample ID	Date	Dissolved Oxygen (mg/L)
MW-6	3/1/12	1.34
	9/12/12	1.44
	1/31/2013	0.94
	2/7/2013	0.7
	2/14/2013	4.31
	3/1/2013	2.93
	3/11/2013	0.9
	3/14/2013	5.9
	4/11/2013	0.25
	4/26/2013	0.28
	5/10/2013	0.32
	5/24/2013	0.58
	6/6/2013	0.77
MW-9	3/1/2012	0.46
	9/12/2012	1.15
	1/31/2013	1.32
	2/7/2013	3.9
	2/14/2013	4.94
	3/1/2013	2.09
	3/11/2013	0.8
	3/14/2013	2.32
	4/11/2013	0.3
	4/26/2013	0.44
	5/10/2013	0.24
	5/24/2013	0.57
	6/6/2013	0.81
MW-10	3/1/2012	4.03
	9/12/2012	1.09
	1/31/2013	1.78
	2/7/2013	1.7
	2/14/2013	1.01
	3/1/2013	2.22
	3/11/2013	0.9
	3/14/2013	1.77
	4/11/2013	0.1
	4/26/2013	0.28
	5/10/2013	0.34
	5/24/2013	0.58
	6/6/2013	0.58

Sample ID	Date	Dissolved Oxygen (mg/L)
MW-11	3/1/2012	9.9
	9/12/2012	1.11
	1/31/2013	1.3
	2/7/2013	1.1
	2/14/2013	1.11
	3/1/2013	2.01
	3/11/2013	0.6
	3/14/2013	10.56
	4/11/2013	0.11
	4/26/2013	0.2
	5/10/2013	0.22
	5/24/2013	0.46
	6/6/2013	0.49
MW-13	3/1/2012	0.48
	9/12/2012	1.11
	1/31/2013	1.71
	2/7/2013	3.1
	2/14/2013	1.38
	3/1/2013	1.78
	3/11/2013	1
	3/14/2013	2.24
	4/11/2013	0.14
	4/26/2013	0.26
	5/10/2013	0.25
	5/24/2013	0.63
	6/6/2013	0.59
HW-3	9/12/2012	1.75
	1/31/2013	4.43
	2/7/2013	0.9
	2/14/2013	4.16
	3/1/2013	2.24
	3/11/2013	0.4
	3/14/2013	8.07
	4/11/2013	0.14
	4/26/2013	0.28
	5/10/2013	0.31
	5/24/2013	0.59
	6/6/2013	0.6

ATTACHMENT A

Petrozyme™ CBN™

3830 S Truman Rd. Bldg. 12
Washougal, WA 98671
(971) 222-3903 Fax
www.etecllc.com

Material Safety Data Sheet

Revision Date: 02/20/2013

Section 1: Product and Company Identification

Product Name: **CBN™ Custom-Blend Nutrients**
MSDS Number: 014
Chemical Name: Inorganic Nutrient Mixture
Chemical Family: Mixed Nutrient

Recommended Use: Microbial Nutrient
Restrictions on Use: No Data

Company: ETEC, LLC
3830 S Truman Rd. Bldg 12
Washougal, WA 98671
USA

Telephone: (971) 222-3616

Emergency Telephone: (800) 535-5053
Medical Emergencies: (800) 301-7976
U.S. Coast Guard National Response Center: (800) 424-8802

Section 2: Hazards Identification

Emergency Overview:

May cause fire or explosion; strong oxidizer. May be harmful if swallowed or inhaled. Causes skin irritation and eye irritation. May cause respiratory irritation.

NFPA Rating:

Health Hazard:	0
Fire:	0
Reactivity Hazard:	3
Other:	Oxidizer

Section 3: Composition/Information on Ingredients

Ingredients as defined by 29 CFR 1910.1200:

Chemical Ingredients:	CAS Number:	Percent Range:
Ammonium Nitrate	6484-52-2	60 – 80%
Phosphate Salt		20 – 30%
Non-hazardous Component		5%

Section 4: First Aid Measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin Contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Do NOT induce vomiting. Give large quantities of water to drink. Immediately call a poison center or doctor/physician.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media: Use flooding amounts of water in early stages of fire involving ammonium nitrate for extinction. Use any means suitable for extinguishing surrounding fire.

Specific Hazards in Case of Fire: May cause fire or explosion; strong oxidizer. May support combustion in an existing fire. Contact with oxidizable substances may cause extremely violent combustion. Sealed containers may rupture when heated. Sensitive to mechanical impact. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Special Protective Equipment for Fire-Fighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6: Accidental Release Measures

Personal Precautions: Eliminate all ignition sources and heat sources if safe to do so.

Environmental Precautions: Prevent spill material from entering waterways and groundwater, if possible.

Methods for Containment/Cleaning Up: Collect spillage. Collected waste may be transferred to a closed, preferably metal container and sent to a RCRA approved waste disposal facility. Alternatively, sweep spill into noncombustible container and dissolve in large amount of water. Add soda ash. Mix and neutralize with 6M-HCl. Neutralized sludge may be sent to an approved waste disposal facility.

Section 7: Handling and Storage

Handling: Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store away from clothing and other combustible materials. Store at temperatures not exceeding 130°F (54°C), preferably not exceeding 86°F (30°C).

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Chemical Ingredients:	CAS Number:	OSHA PEL	NIOSH REL	ACGIH TLV
Ammonium Nitrate	6484-52-2	None Established	None Established	None Established
Phosphate Salt		None Established	None Established	None Established
Non-hazardous Component		None Established	None Established	None Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment:

Eye Protection: Wear eye protection/face protection.

Hand Protection: Wear protective gloves.

Skin and Body Protection: Wear impervious clothing, boots, gloves as appropriate to prevent skin contact.

Respiratory Protection: Avoid breathing dust. Use only outdoors or in a well-ventilated area. If exposure to dust is possible, use a NIOSH approved respirator.

Hygiene Measures: Keep away from clothing and other combustible materials. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

Section 9: Physical and Chemical Properties

Physical State: Crystals, granules
Color: White
Odor: Odorless
Odor Threshold: Not Available
pH: 7.0
Melting/Freezing Point: 338°F (170°C)
Initial Boiling Point: 410°F (210°C) Decomposes
Flash Point: Not Available
Evaporation Rate: Not Available
Flammability (solid, gas): Not Available
Lower Explosive Limit: Not Available

Upper Explosive Limit:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
Relative Density:	1.73 @ 77°F (23°C)
Solubility:	118 g/100 g water @ 32°F (0°C)
Partition Coefficient:	Not Available
Autoignition Temperature:	Not Available
Decomposition Temperature:	Not Available

Section 10: Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Hygroscopic.

Conditions to Avoid: Heat, flame, ignition sources, dusting and incompatibles. Moisture and combustible materials. Shock sensitive.

Incompatible Materials: Aluminum, antimony, chromium, copper, iron, lead, magnesium, manganese, nickel, zinc, brass, oil, charcoal, organic material, acetic acid, ammonium chloride, bismuth, cadmium, chlorides, cobalt, phosphorus, potassium and ammonium sulfate, sodium, sodium hypochlorite, sodium perchlorate, sodium-potassium alloy, and sulfides.

Hazardous Decomposition Products: Emits nitrous oxides when heated to decomposition. Liberates ammonia in reaction with strong alkalis.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Inhalation: May cause respiratory irritation. At high temperatures, exposure to toxic nitrogen oxides decomposition products can quickly cause acute respiratory problems. Inhalation of large amounts causes systemic acidosis and abnormal hemoglobin.

Ingestion: Harmful if swallowed. Large oral doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions, and collapse. May cause methemoglobinemia resulting in cyanosis.

Skin Contact: Causes skin irritation.

Eye Contact: Causes eye irritation.

Chronic Exposure: Small repeated oral doses of nitrates may cause weakness, depression, headache, and mental impairment.

Aggravation of Pre-existing Conditions: No information found.

Numerical Measures of Toxicity: Oral rat LD50: 2217 mg/kg (for ammonium nitrate)

Carcinogenicity: Not known to be as defined by OSHA, IARC or NTP (for ammonium nitrate).

Section 12: Ecological Information

Mobility in Soil: When released into soil, this material is expected to leach into groundwater. When released into the soil, this material is not expected to evaporate significantly.

Persistence: When released into water, this material is expected to readily biodegrade.

Section 13: Disposal Considerations

Dispose of contents/container in accordance with all applicable local, state and federal regulations.

Section 14: Transport Information

For Transportation Emergencies Involving This Material, Call: ChemTrec 1-800-424-9300 Company Code: E419

DOT (LAND):

Proper Shipping Name:	AMMONIUM NITRATE BASED FERTILIZER
Hazard Class:	5.1
UN Number:	UN2067
Packing Group:	III
Placards:	Oxidizer
DOT Hazardous Substance RQ:	None/no reportable quantities
DOT Marine Pollutants:	None/no reportable quantities

Section 15: Regulatory Information

OSHA Hazards: Strong oxidizer, skin irritant, eye irritant, respiratory irritant

SARA 302: None/no reportable quantities.

SARA 311/312 Hazard Categories: Acute Health Hazard, Reactive Hazard

SARA 313: Nitrate compounds are subject to the reporting requirements of SARA 313. Additionally, water dissociable ammonia salts are subject to the reporting requirements of SARA 313 when placed in water.

TSCA: All substances in this product are listed on the TSCA inventory.

Section 16: Other Information

The information contained in this MSDS is presented in good faith and believed to be accurate based on the information provided. The MSDS does not purport to be all inclusive, and shall be used only as a guide. While ETEC, LLC believes that the data contained herein comply with 29 CFR 1910.1200, they are not to be taken as a warranty or representation for which ETEC, LLC assumes legal responsibility.

ETEC, LLC shall not be held liable or accountable for any loss or damage associated with the use of this material and information. The recommended industrial hygiene and safe use, handling, storage, and disposal procedures are believed to be generally applicable. However, since the use, handling, storage, and disposal are beyond ETEC, LLC control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability of loss, damage, or expense arising out of the material's improper use.

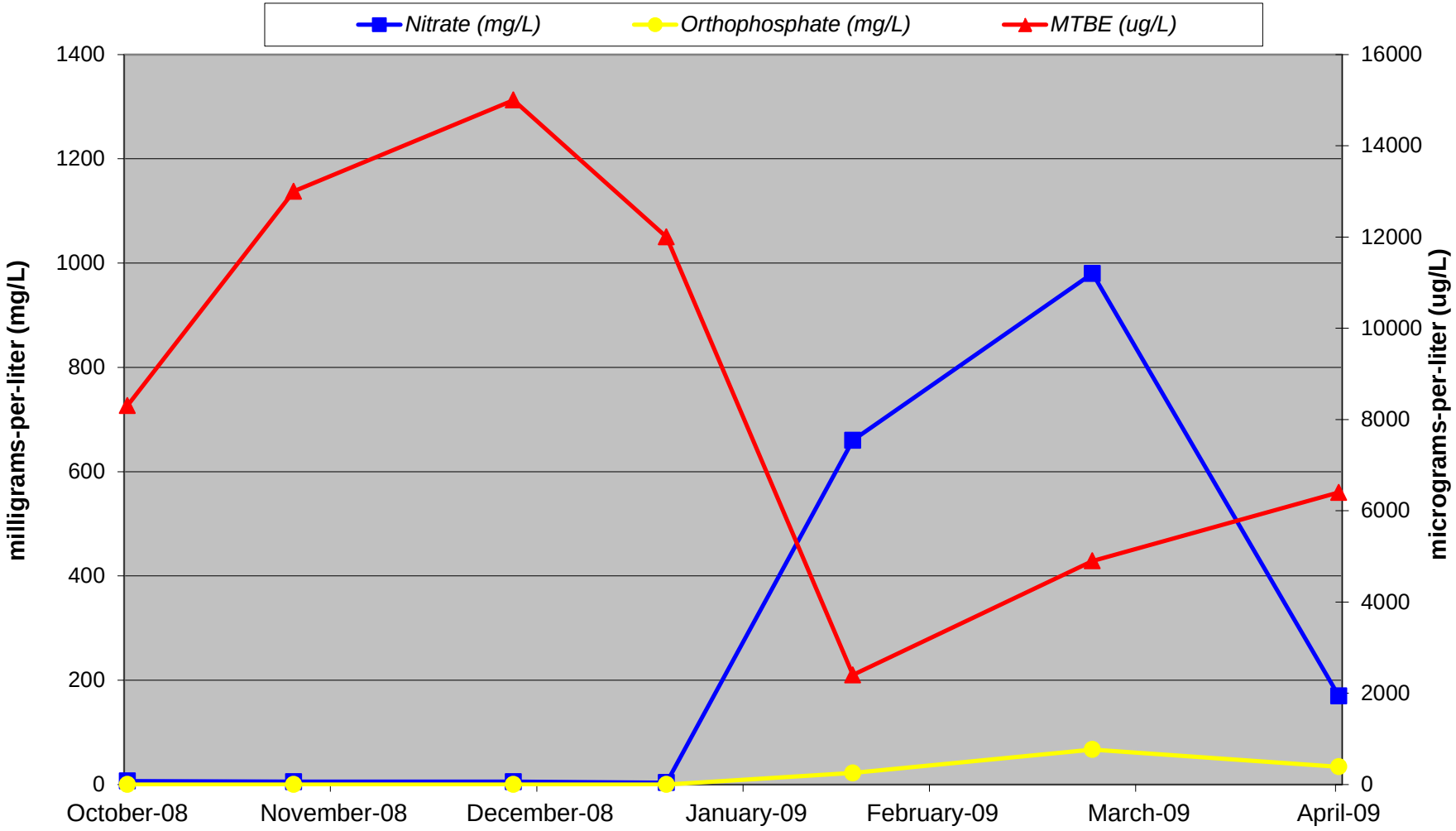
Legend:

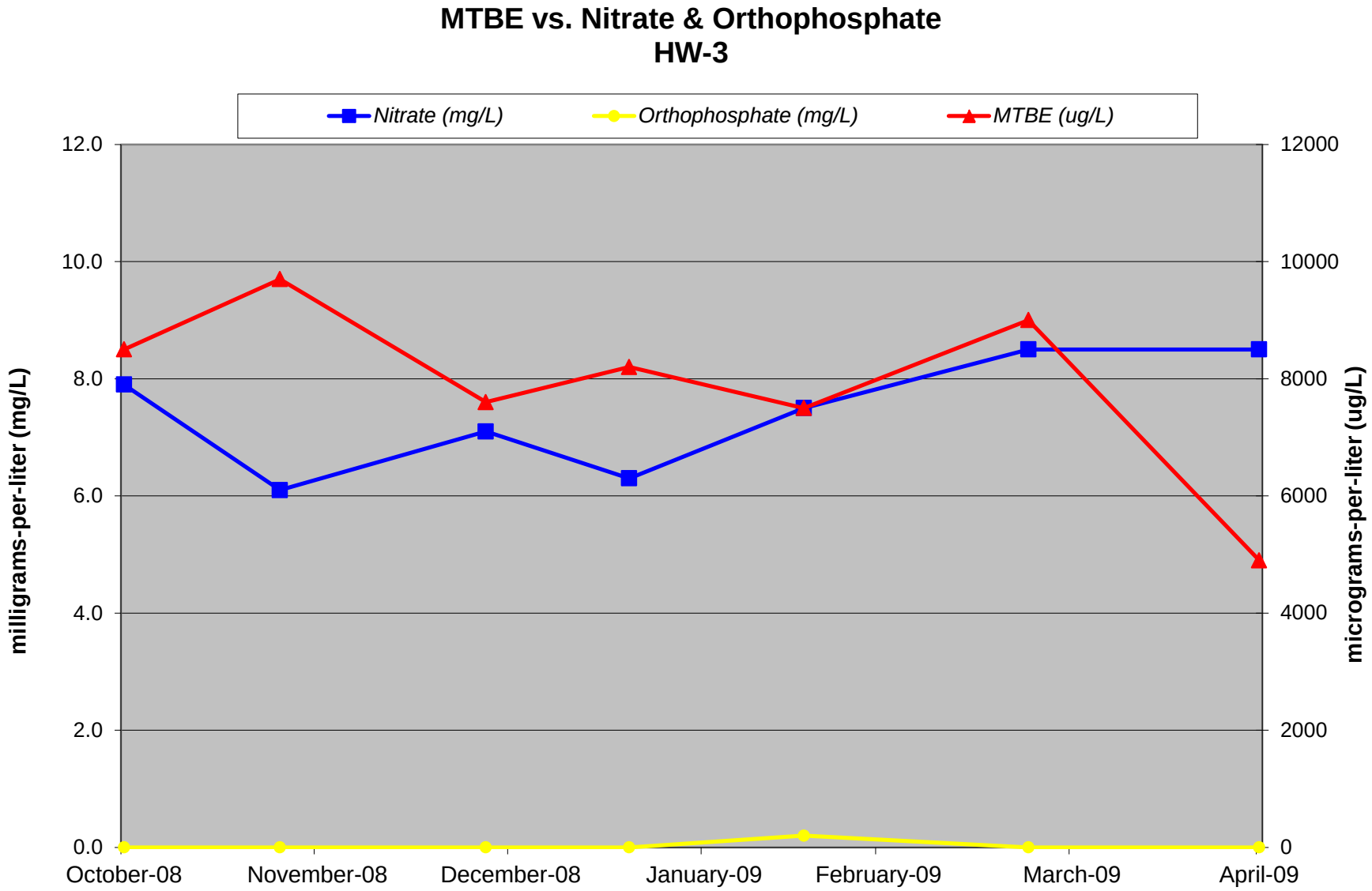
ACGIH: American Conference of Governmental & Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL/NDSL: Domestic Substances List/Non-Domestic Substances List
IARC: International Agency for the Research of Cancer
IATA: International Air Traffic Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organizations
NFPA: National Fire Protection Association
Health, Flammability & Reactivity; Hazard Scale 0 =minimal/none 4= significant
NTP: National Toxicology Program
OSHA: Occupational Safety & Health Administration
PEL: Permissible Exposure Limits
RCRA: Resource Conservation & Recovery Act
RQ: Reportable Quantity
RTK: Right-To-Know
SARA: Superfund Amendments & Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
TCLP: Toxicity Characteristic Leaching Procedure
VOC: Volatile Organic Compounds

ATTACHMENT B

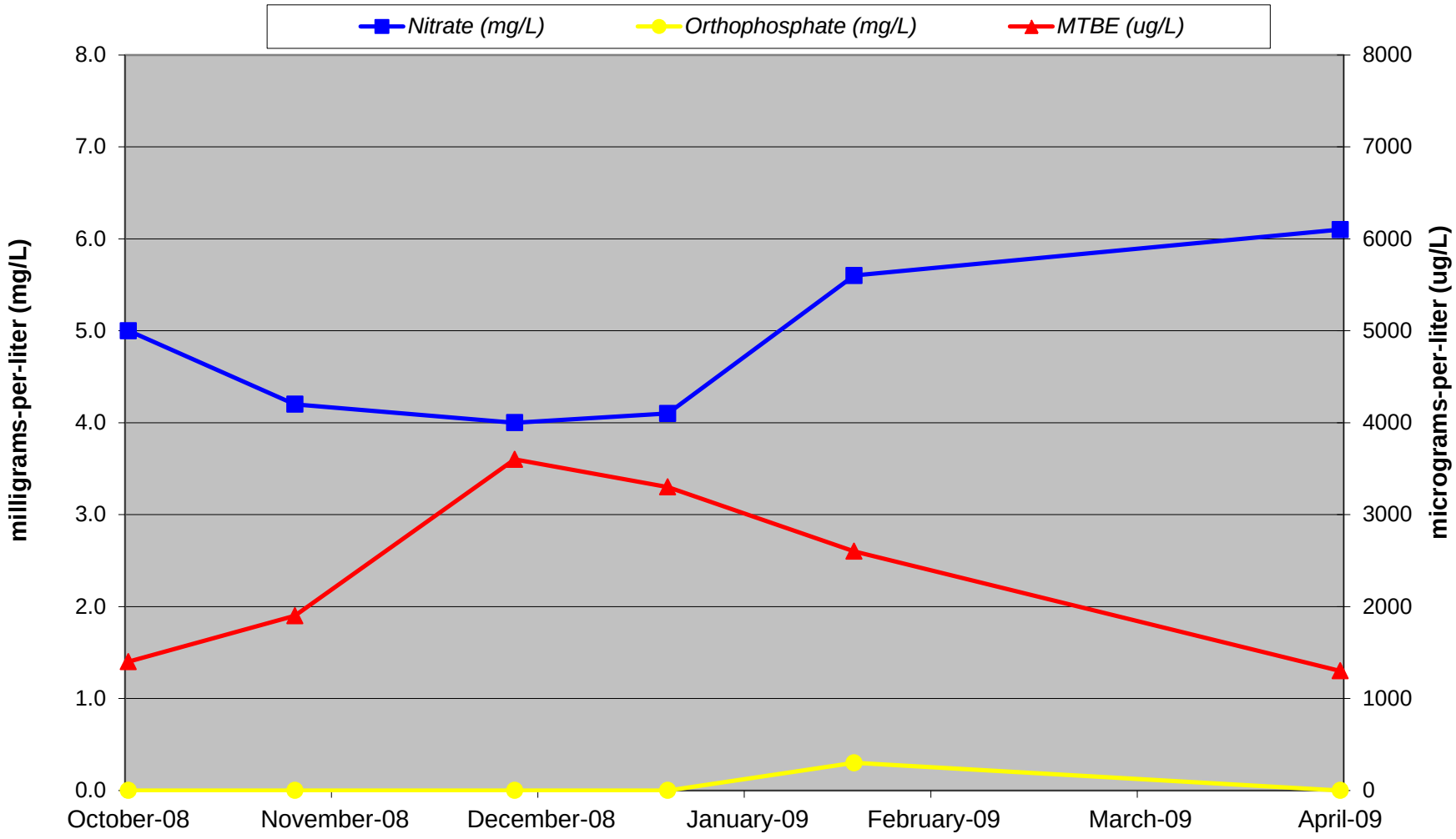
Initial Pilot Test MTBE and Nutrient Concentration Graphs

MTBE vs. Nitrate & Orthophosphate
MW-4A




MTBE vs. Nitrate & Orthophosphate
HW-3
Nitrate (mg/L)
Orthophosphate (mg/L)
MTBE (ug/L)
milligrams-per-liter (mg/L)
micrograms-per-liter (ug/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
12000
10000
8000
6000
4000
2000
0
October-08
November-08
December-08
January-09
February-09
March-09
April-09

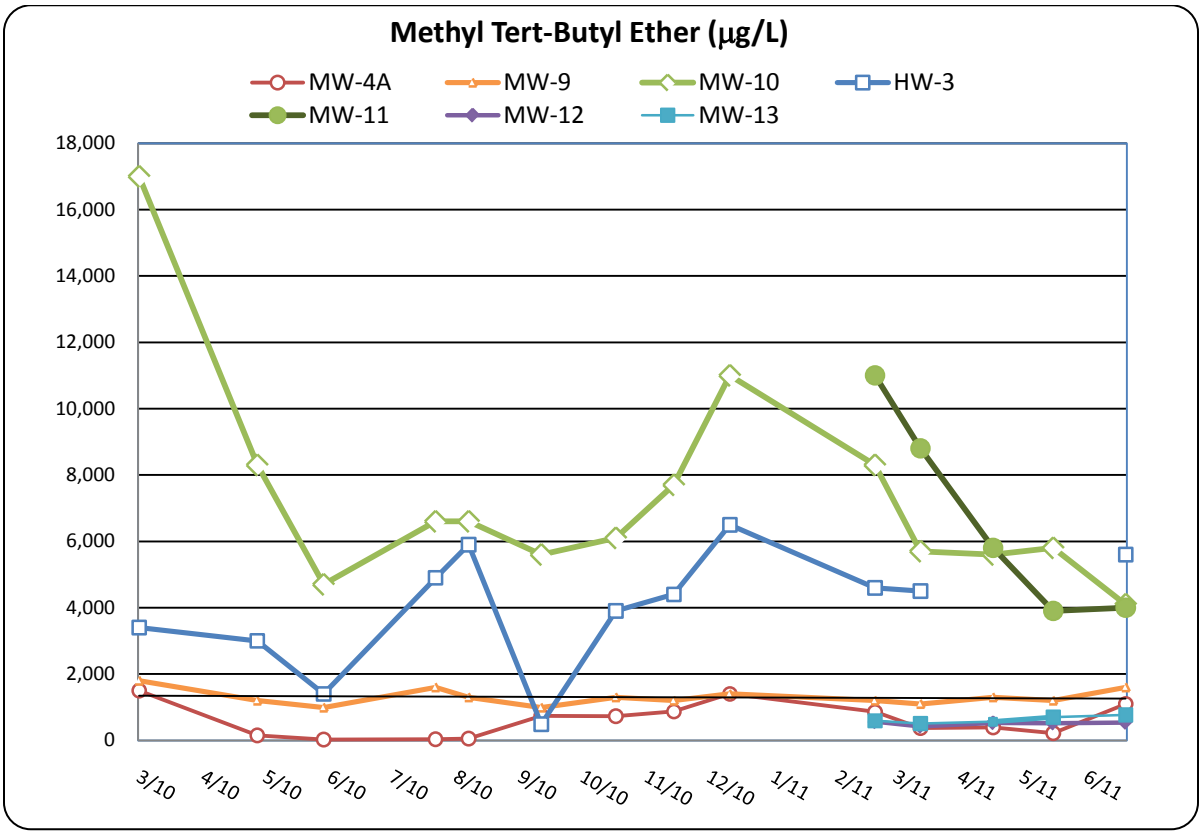
MTBE vs. Nitrate & Orthophosphate
MW-6



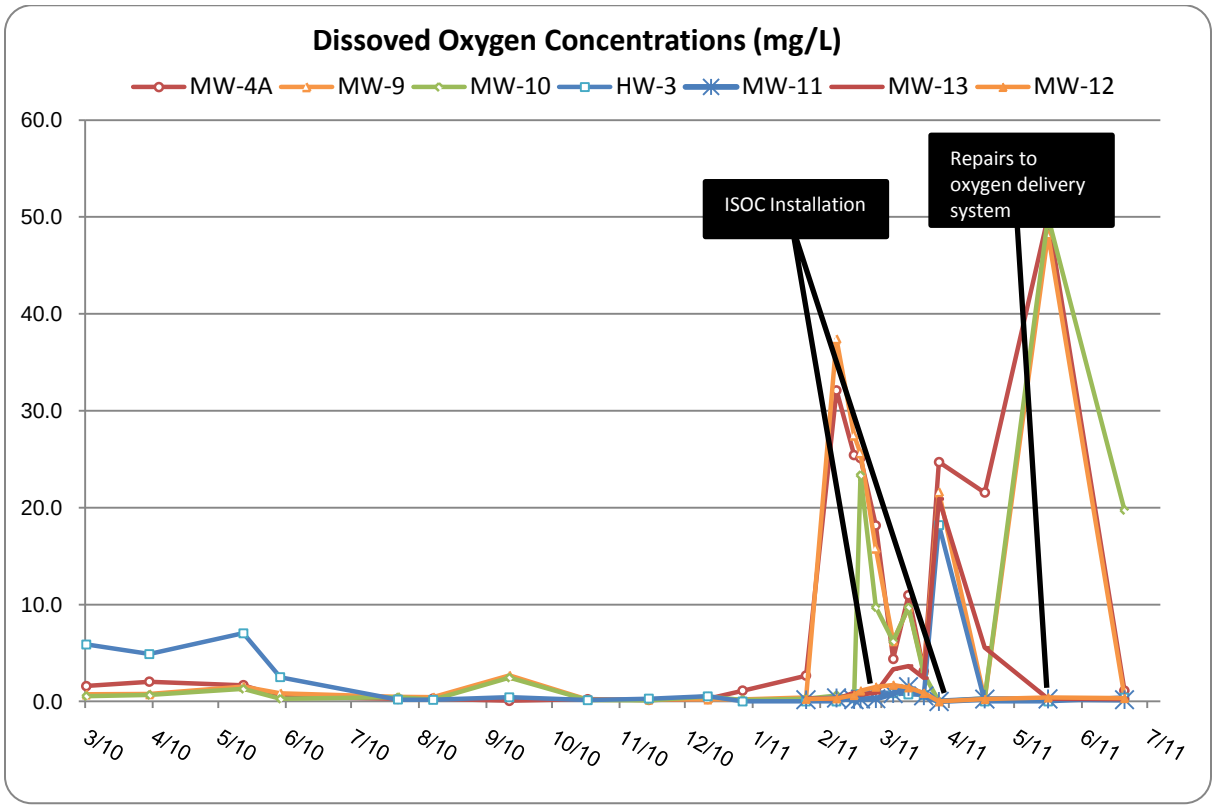
ATTACHMENT C

Second Pilot Test MTBE, DO, Nitrate and Orthophosphate Concentration Graphs

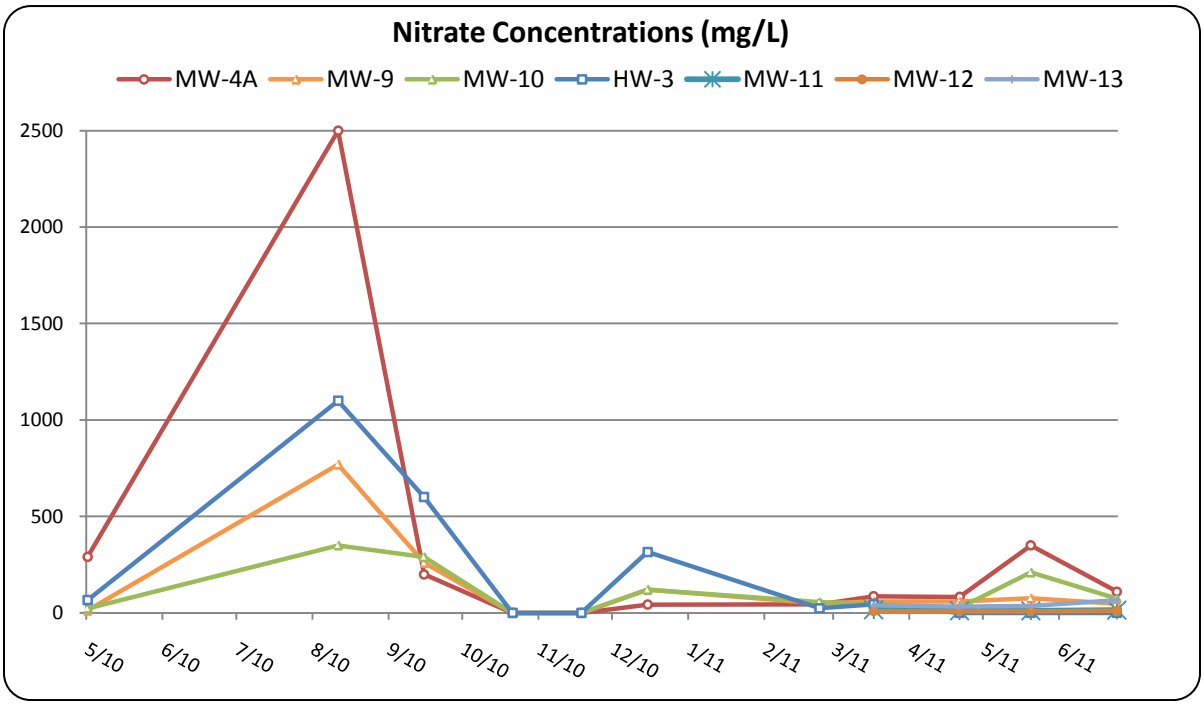
MTBE Groundwater Concentrations (ug/L)



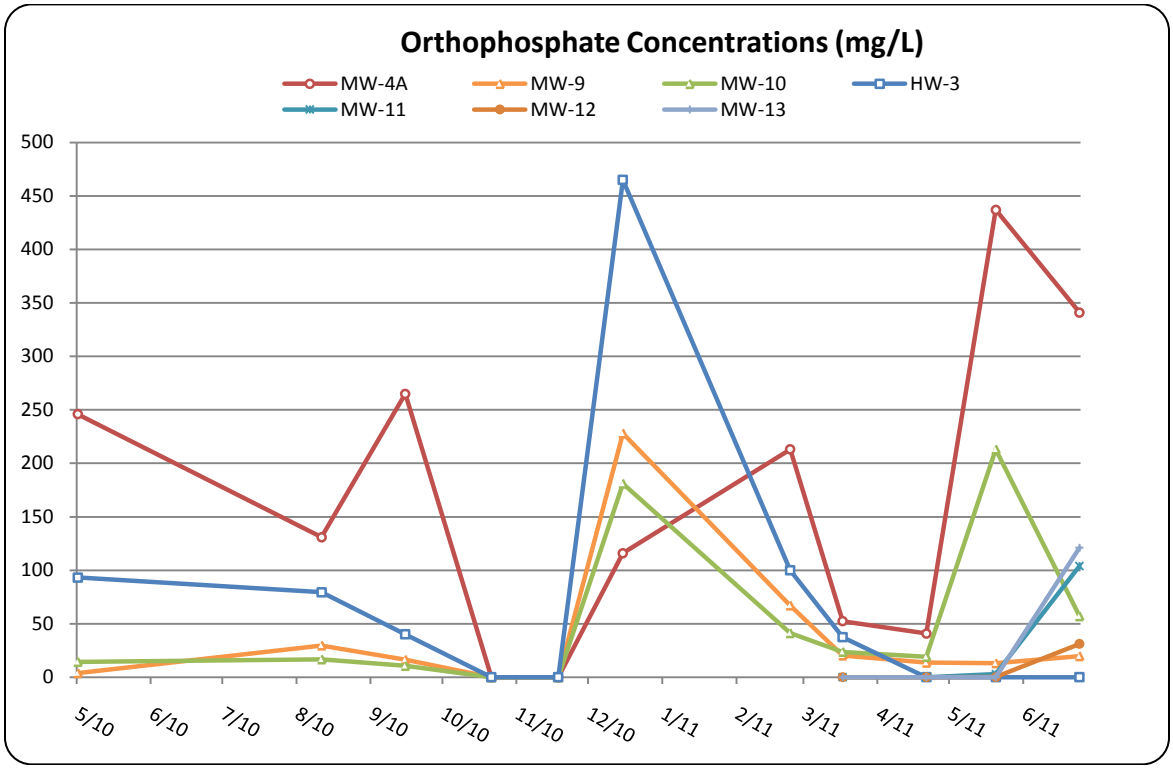
Dissolved Oxygen Groundwater Concentrations (mg/L)



Nitrate Groundwater Concentrations (mg/L)

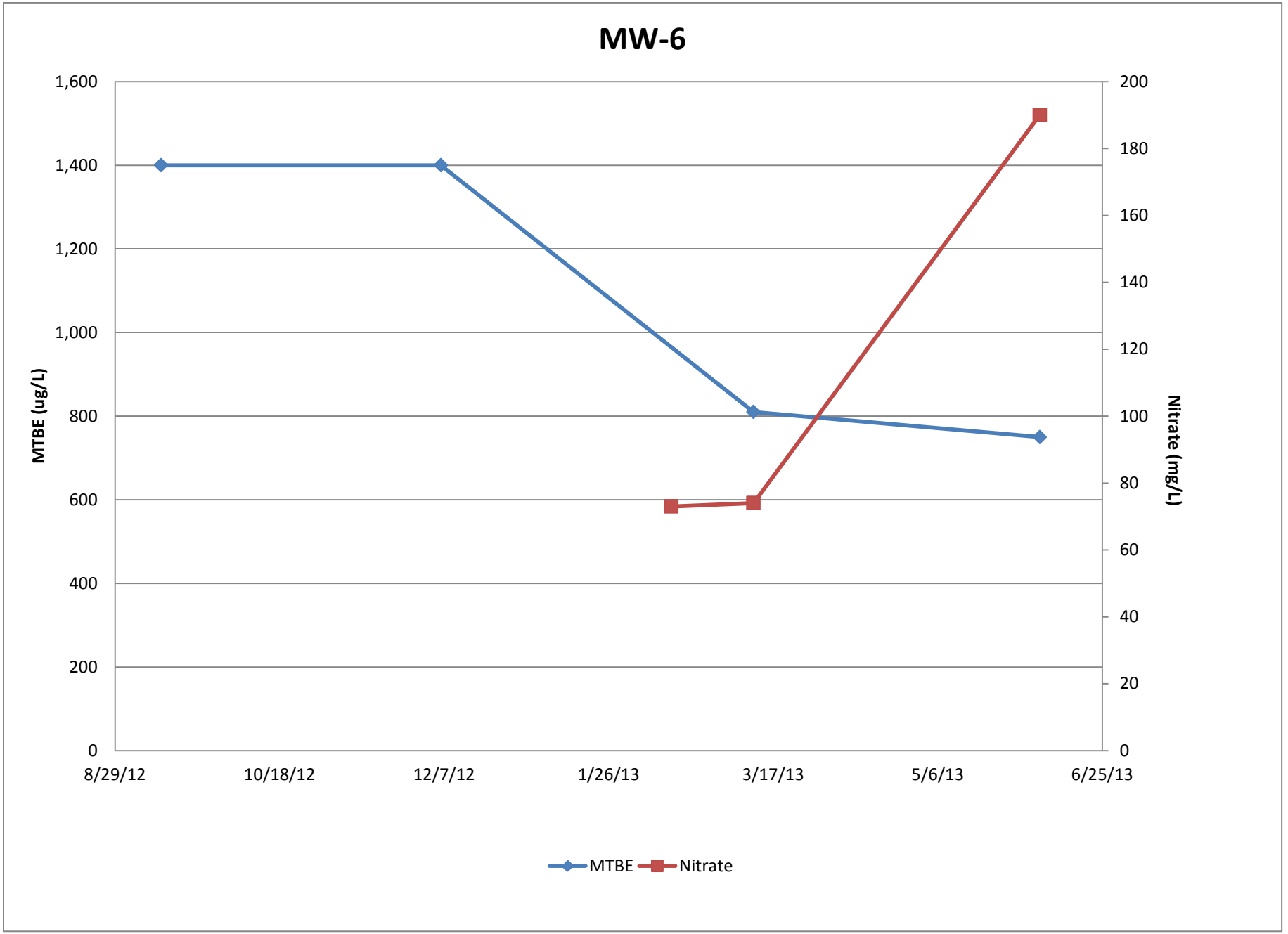


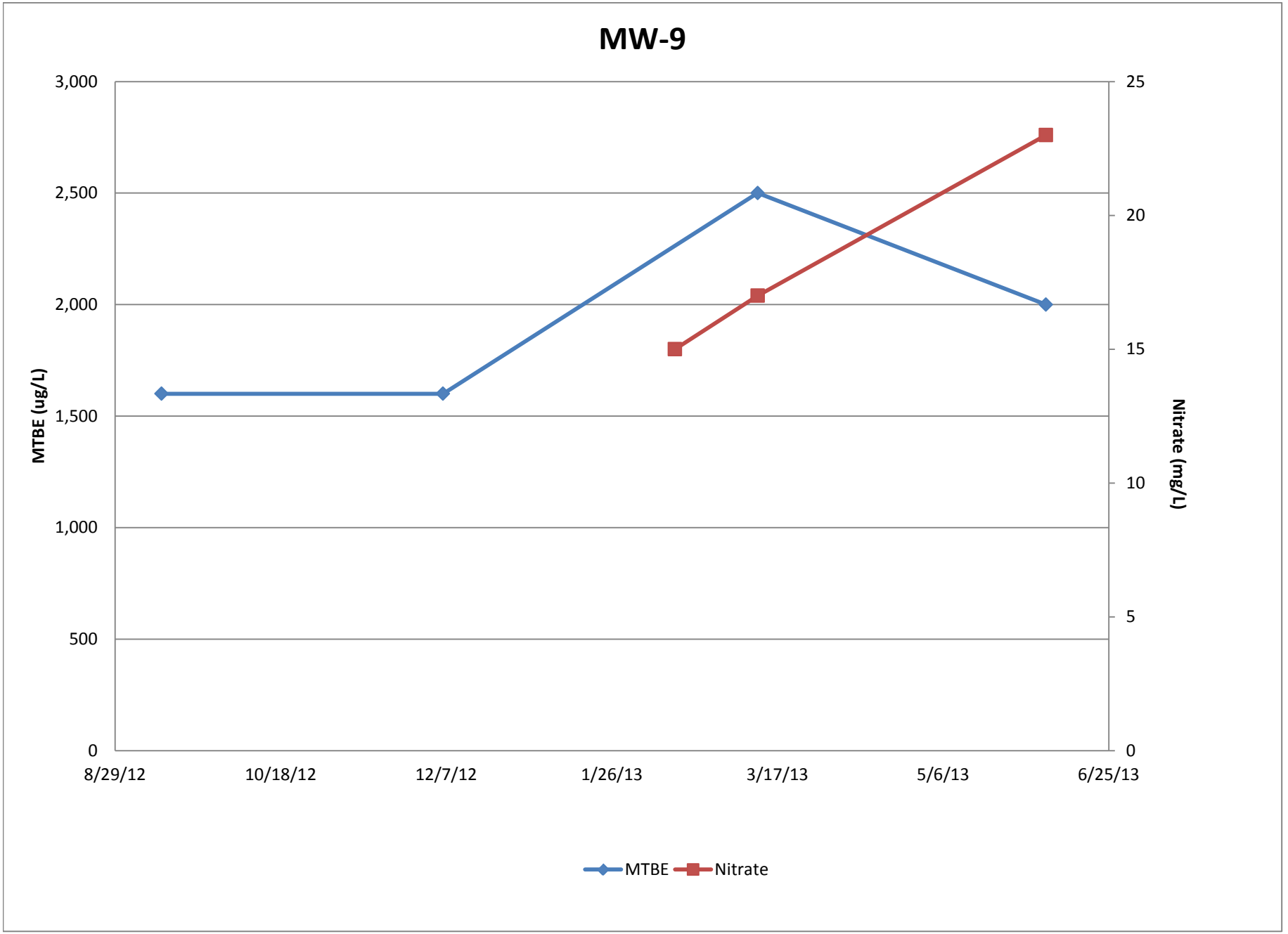
Orthophosphate Groundwater Concentrations (mg/L)

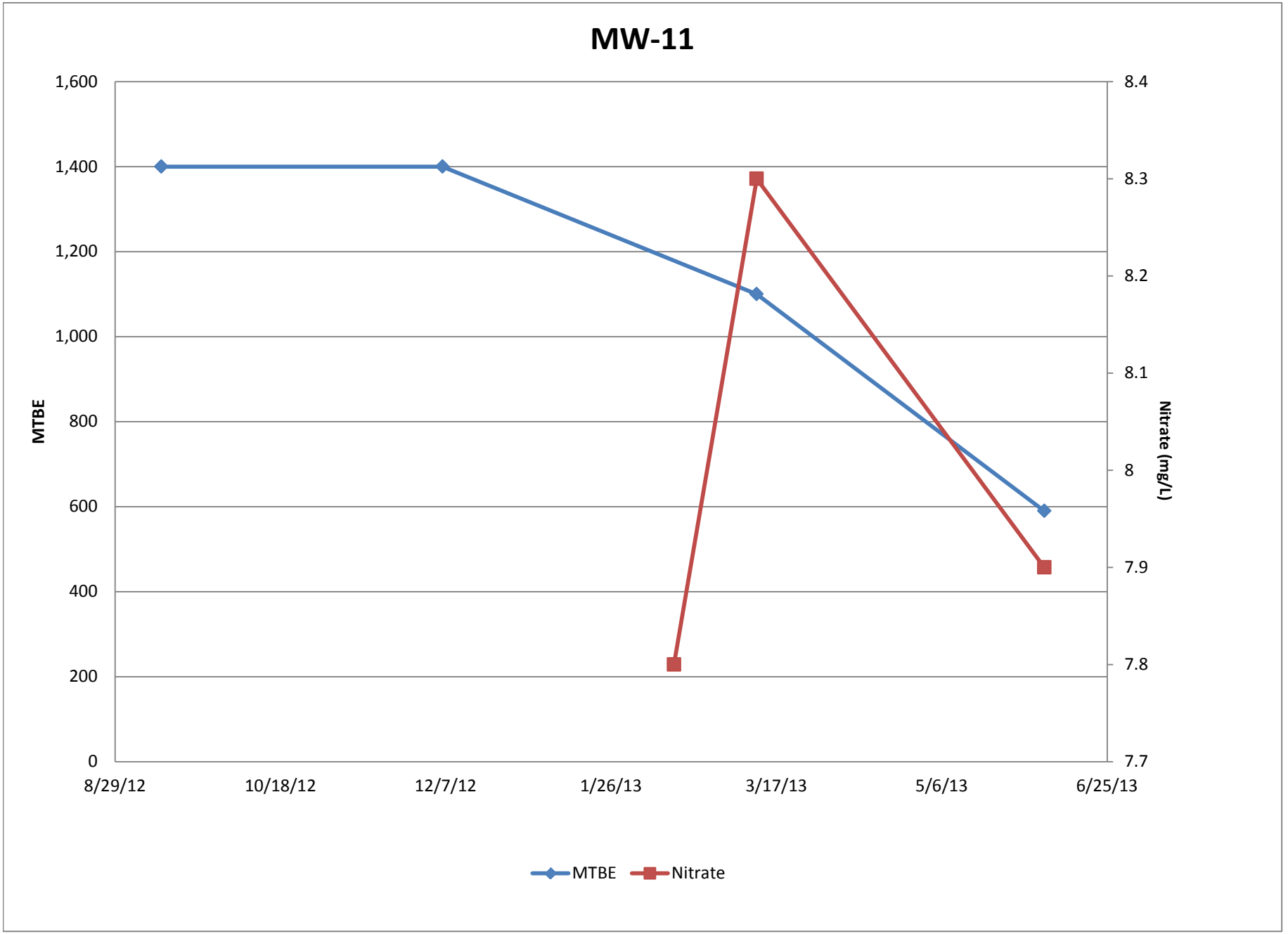


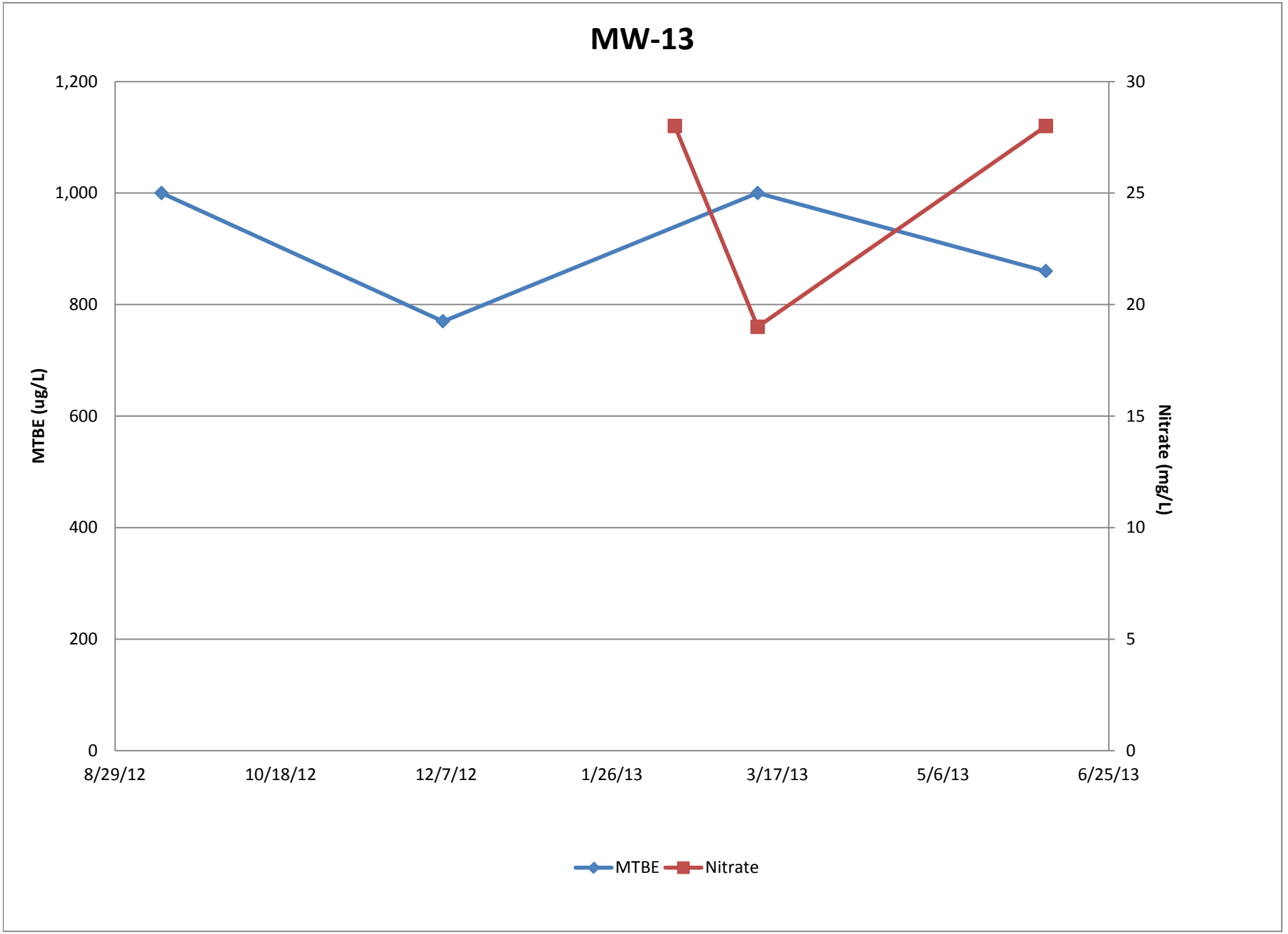
ATTACHMENT D

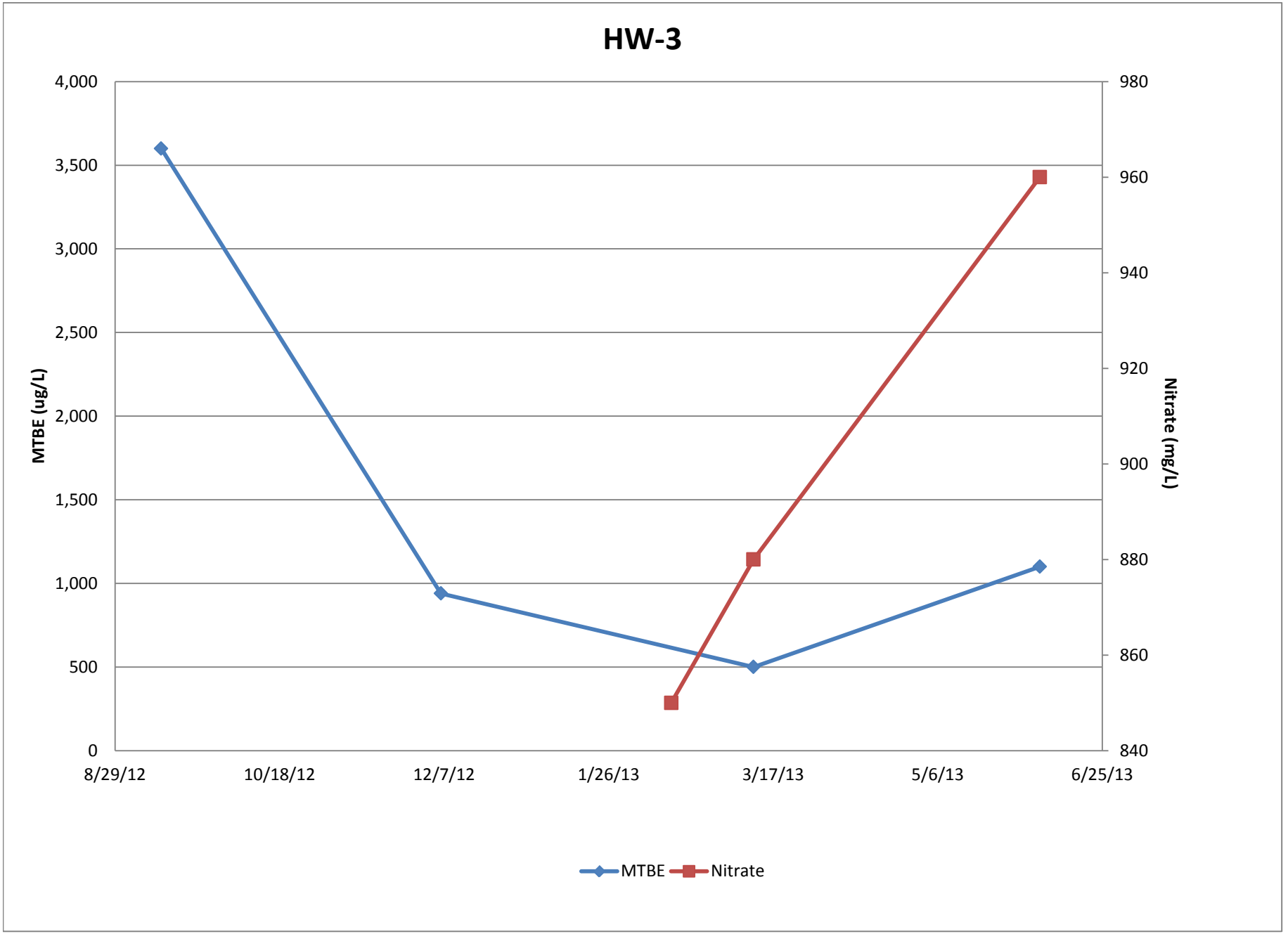
Third Pilot Test MTBE Concentrations vs. Nitrate Levels Graphs


MW-6
1,600
1,400
1,200
1,000
800
600
400
200
0
MTBE (ug/L)
200
180
160
140
120
100
80
60
40
20
0
Nitrate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Nitrate


MW-9
3,000
2,500
2,000
1,500
1,000
500
0
MTBE (ug/L)
25
20
15
10
5
0
Nitrate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Nitrate

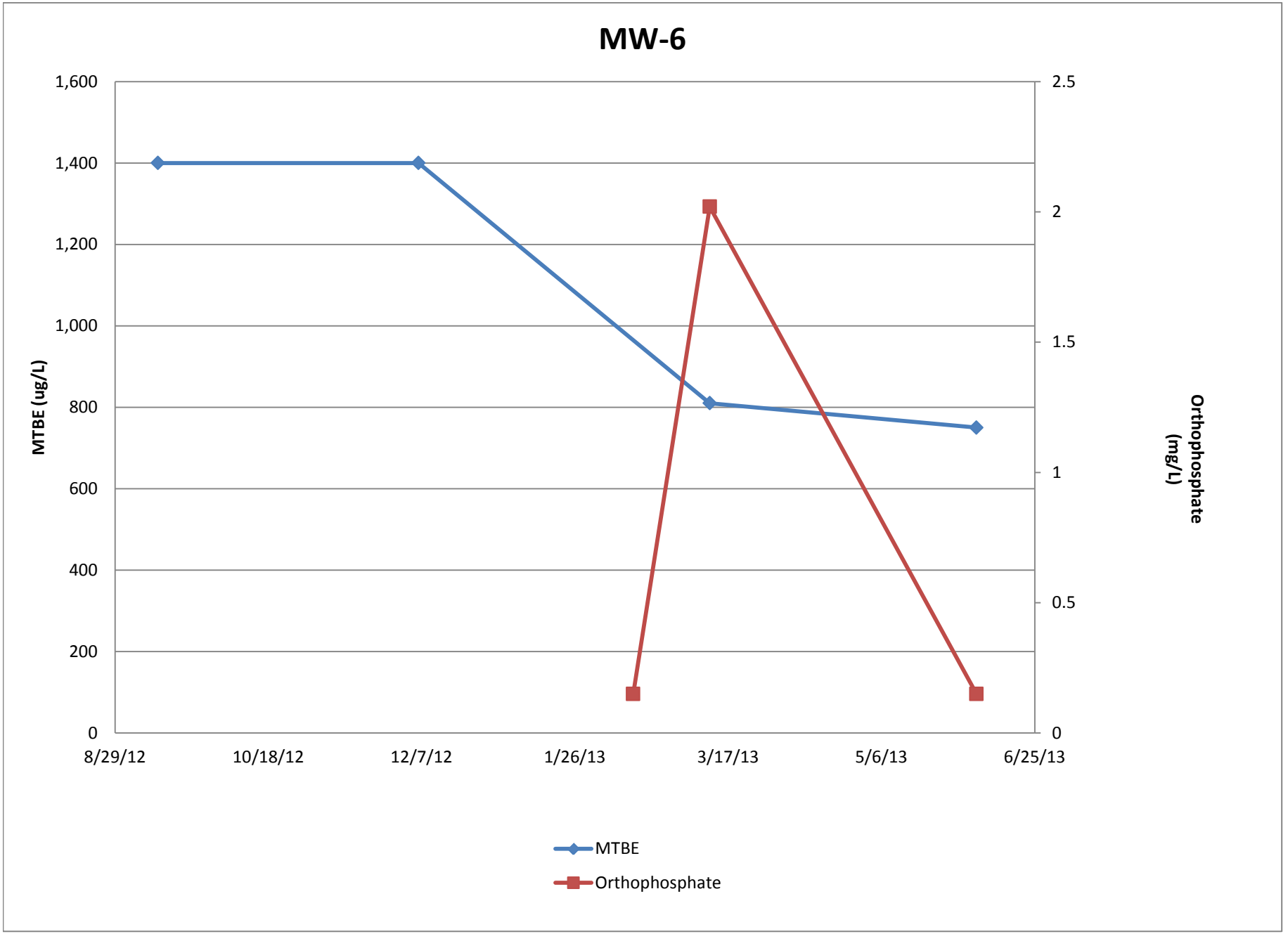

MW-11
1,600
1,400
1,200
1,000
800
600
400
200
0
MTBE
8.4
8.3
8.2
8.1
8
7.9
7.8
7.7
Nitrate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Nitrate

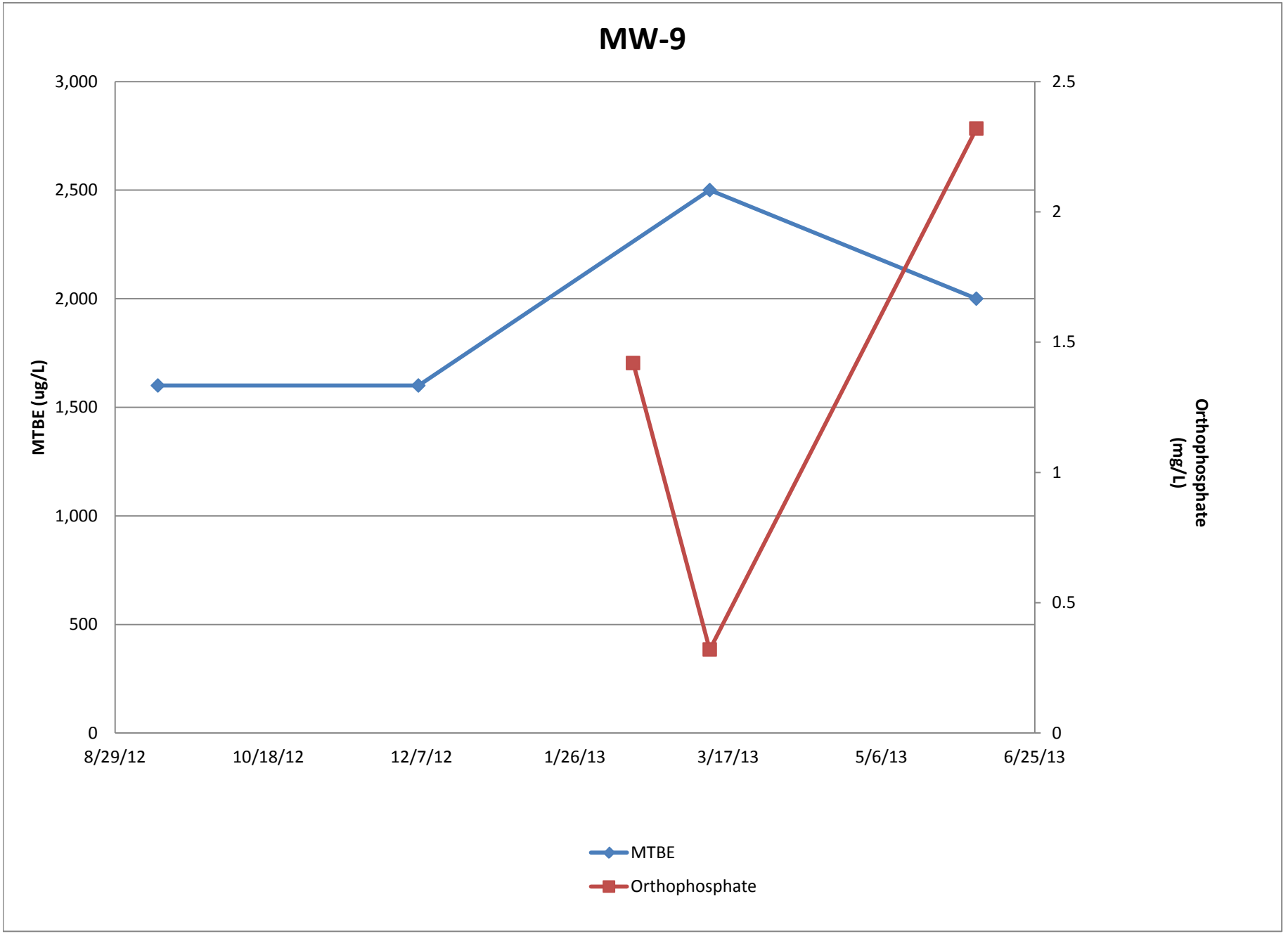

MW-13
1,200
1,000
800
600
400
200
0
MTBE (ug/L)
30
25
20
15
10
5
0
Nitrate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Nitrate

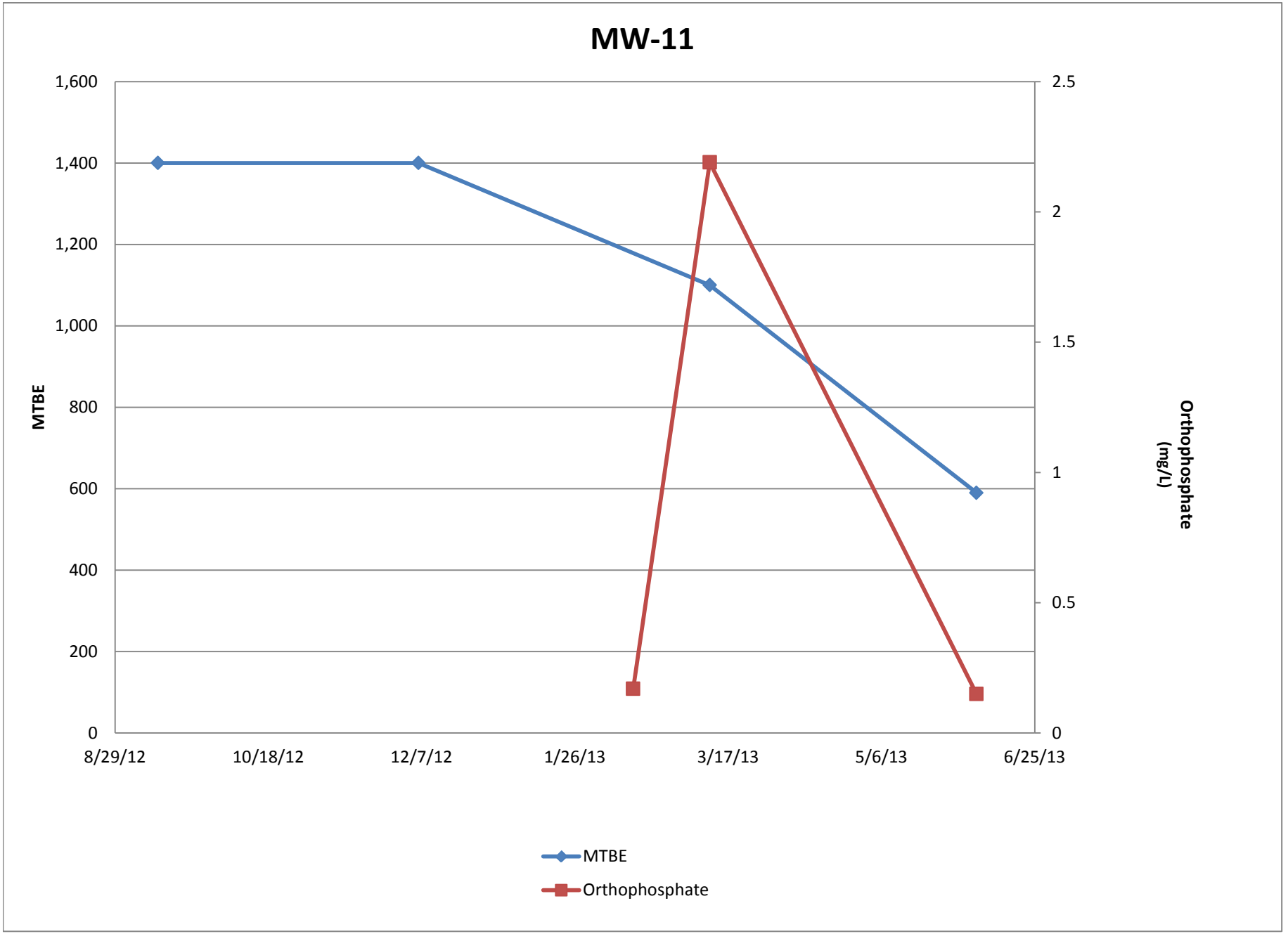

HW-3
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
MTBE (ug/L)
980
960
940
920
900
880
860
840
Nitrate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Nitrate

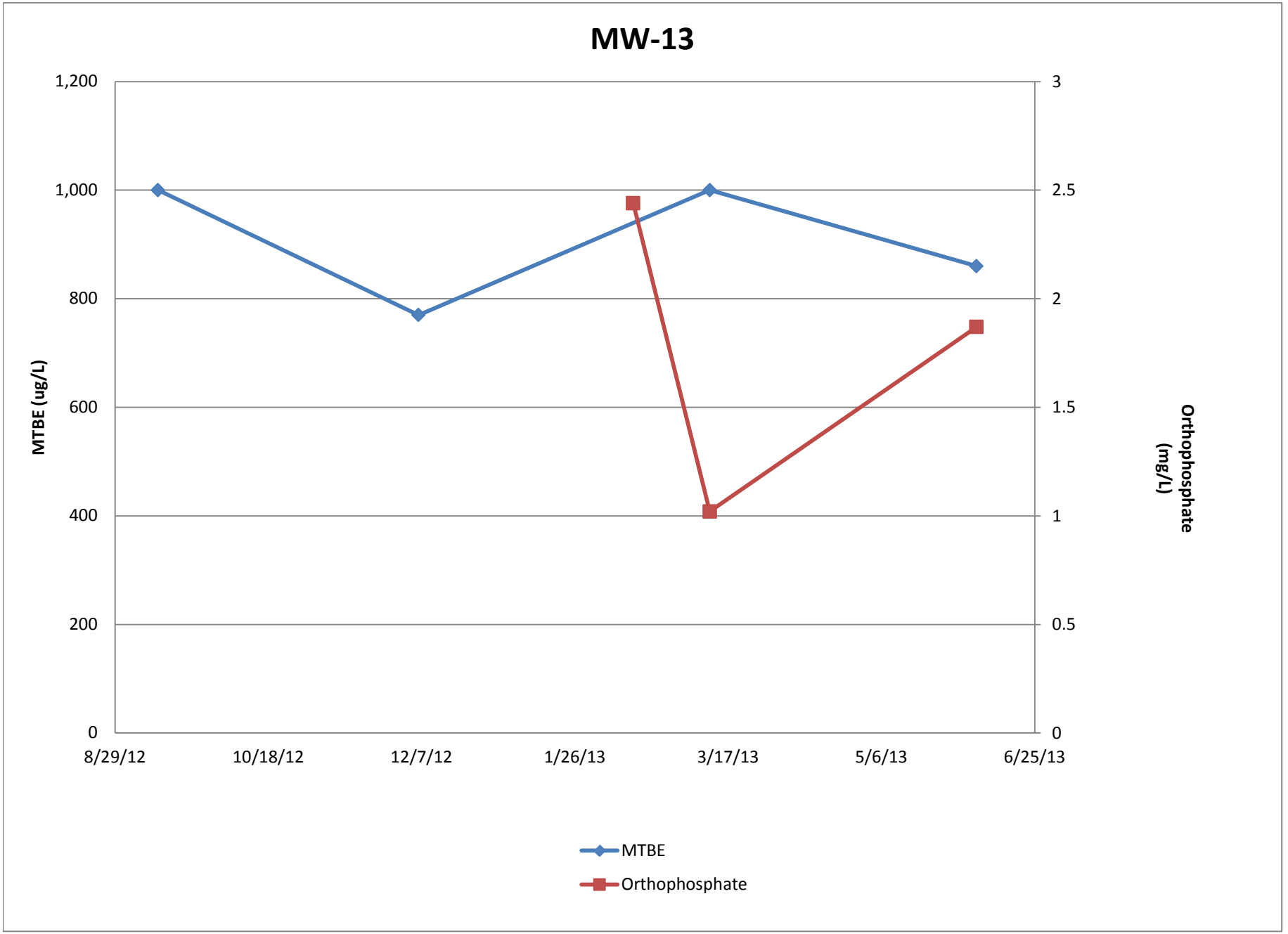
ATTACHMENT E

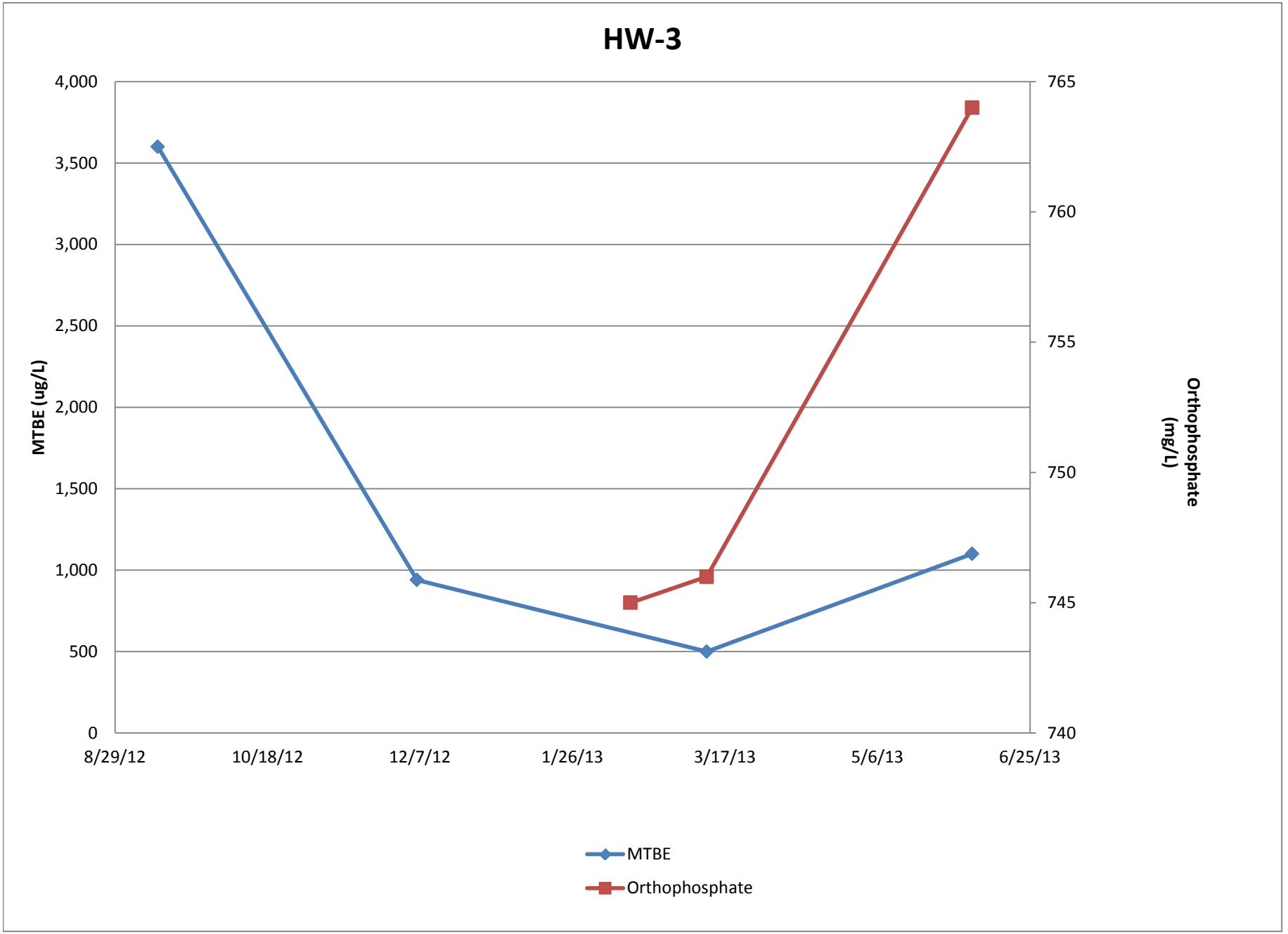
Third Pilot Test MTBE Concentrations vs. Orthophosphate Levels Graphs


MW-6
1,600
1,400
1,200
1,000
800
600
400
200
0
MTBE (ug/L)
2.5
2
1.5
1
0.5
0
Orthophosphate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Orthophosphate


MW-9
3,000
2,500
2,000
1,500
1,000
500
0
MTBE (ug/L)
2.5
2
1.5
1
0.5
0
Orthophosphate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Orthophosphate

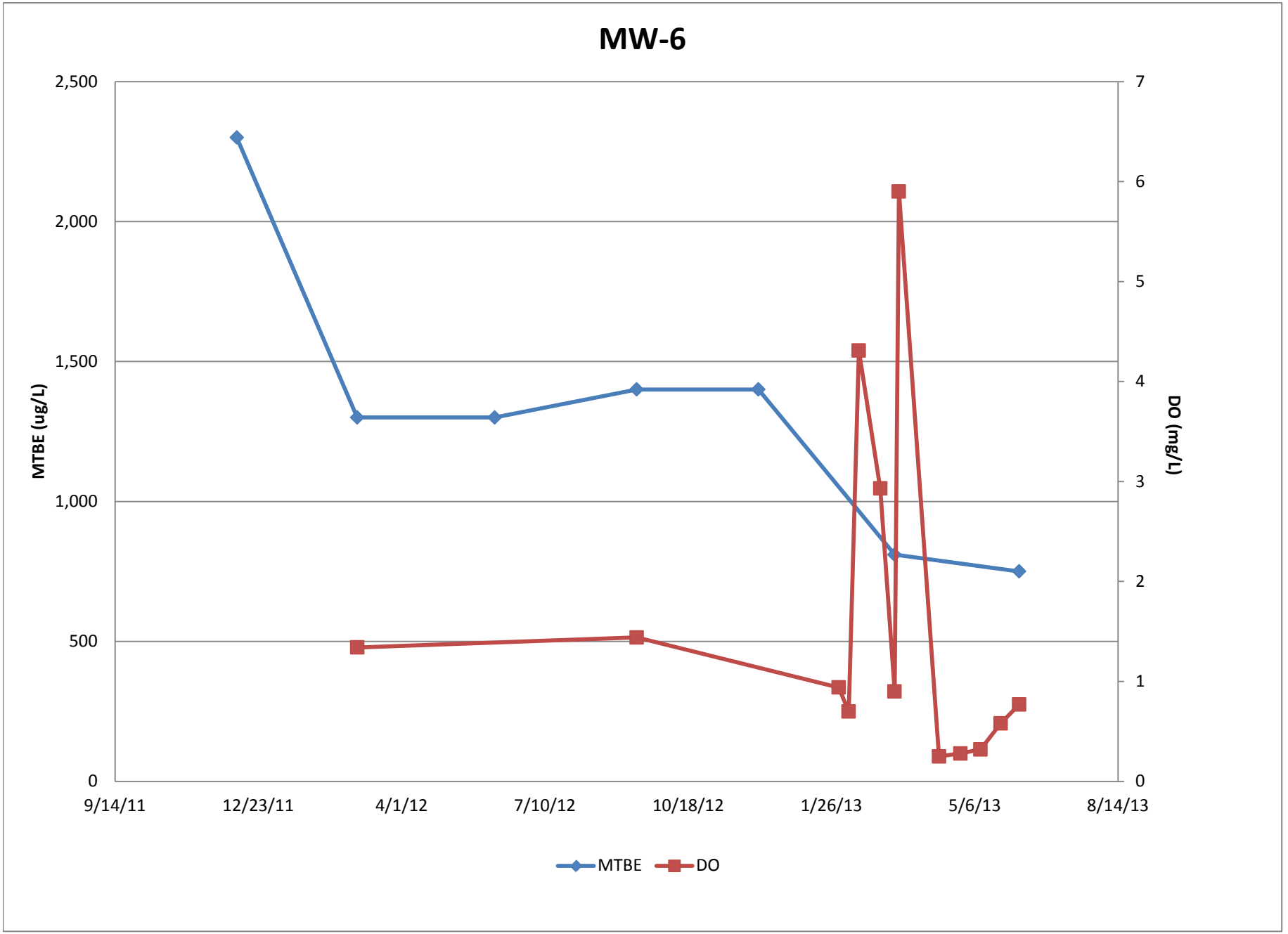

MW-11
1,600
1,400
1,200
1,000
800
600
400
200
0
MTBE
2.5
2
1.5
1
0.5
0
Orthophosphate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Orthophosphate

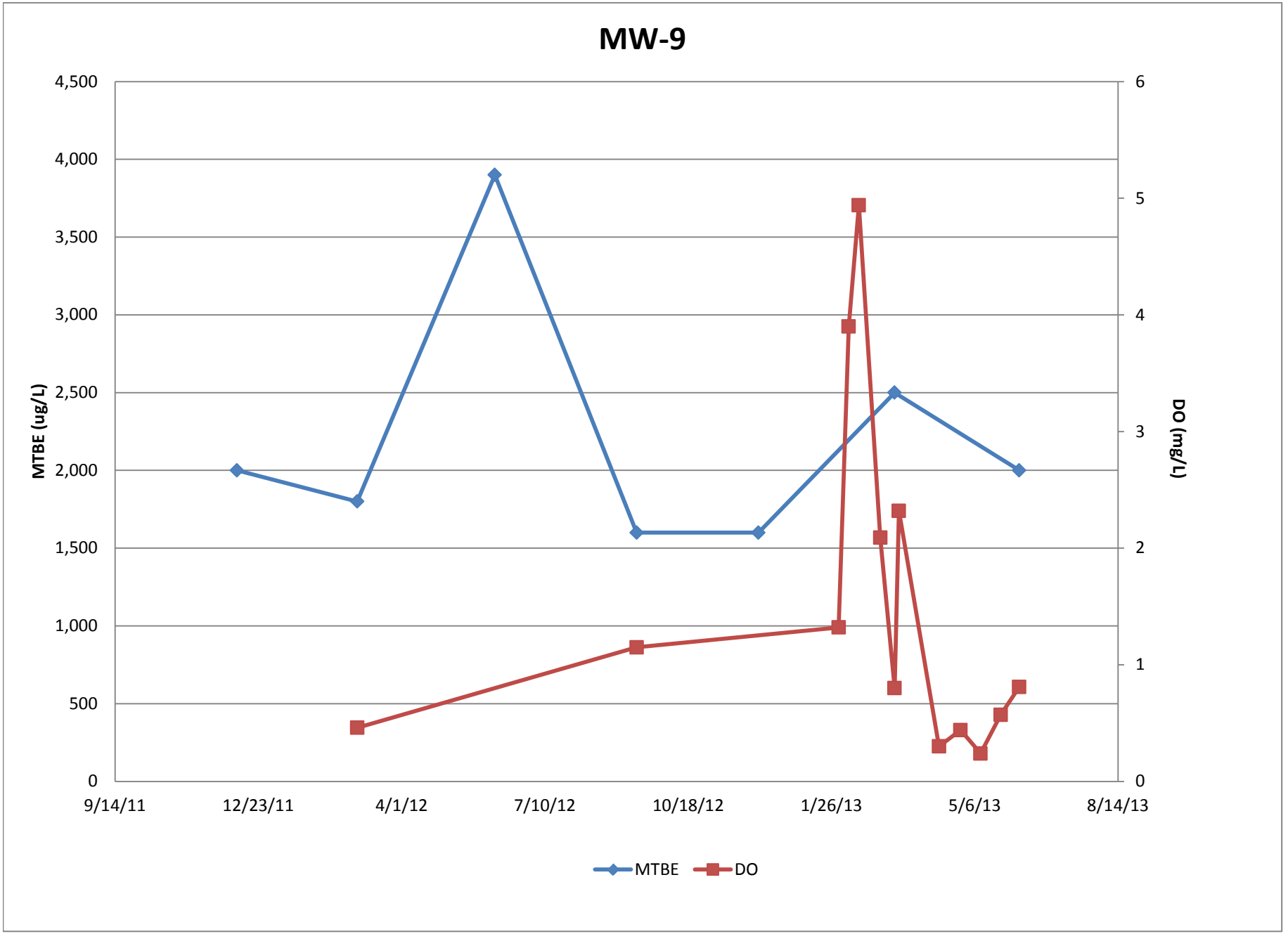

MW-13
1,200
1,000
800
600
400
200
0
MTBE (ug/L)
3
2.5
2
1.5
1
0.5
0
Orthophosphate (mg/L)
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Orthophosphate

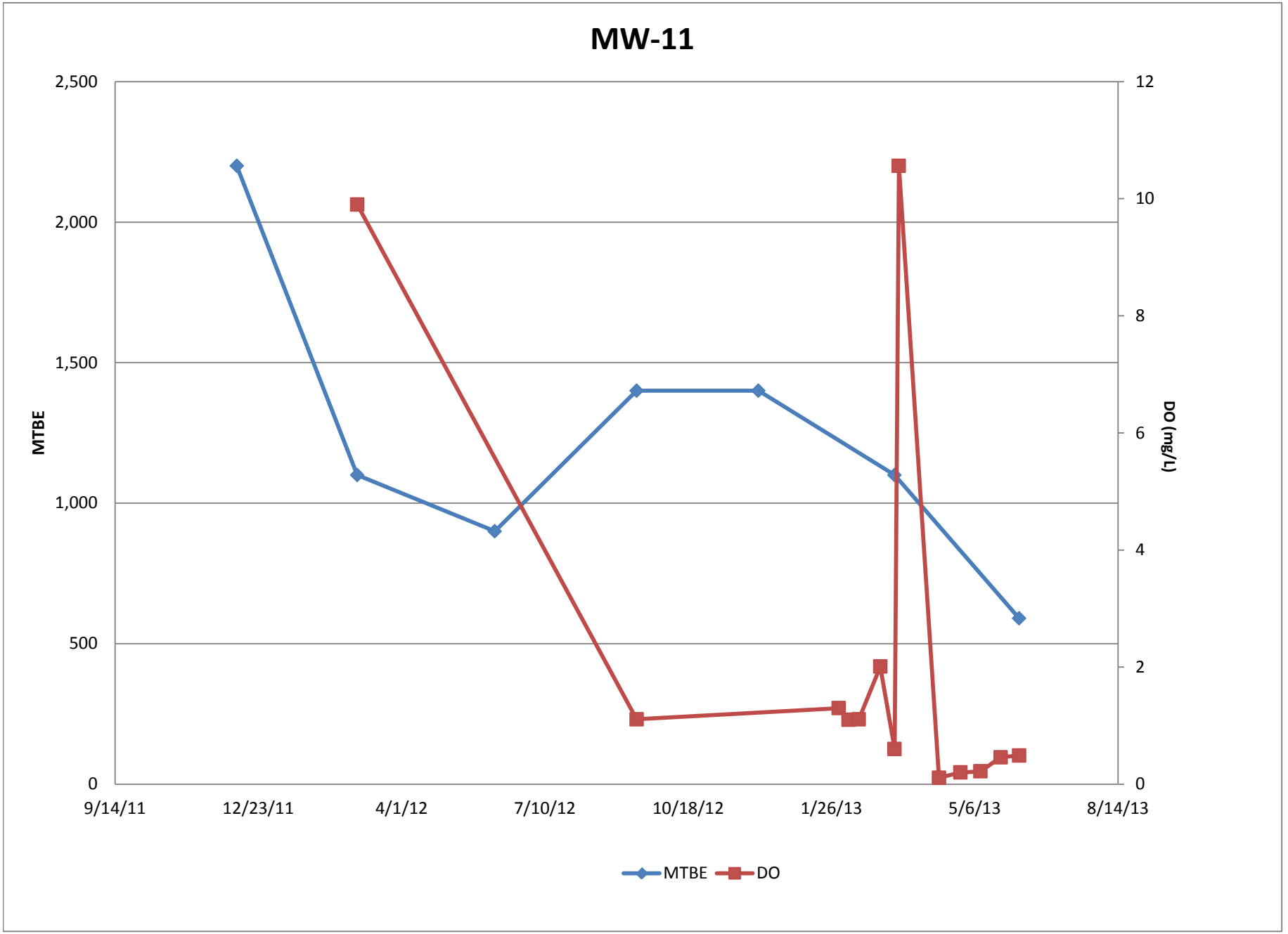

HW-3
MTBE (ug/L)
Orthophosphate (mg/L)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
765
760
755
750
745
740
8/29/12
10/18/12
12/7/12
1/26/13
3/17/13
5/6/13
6/25/13
MTBE
Orthophosphate

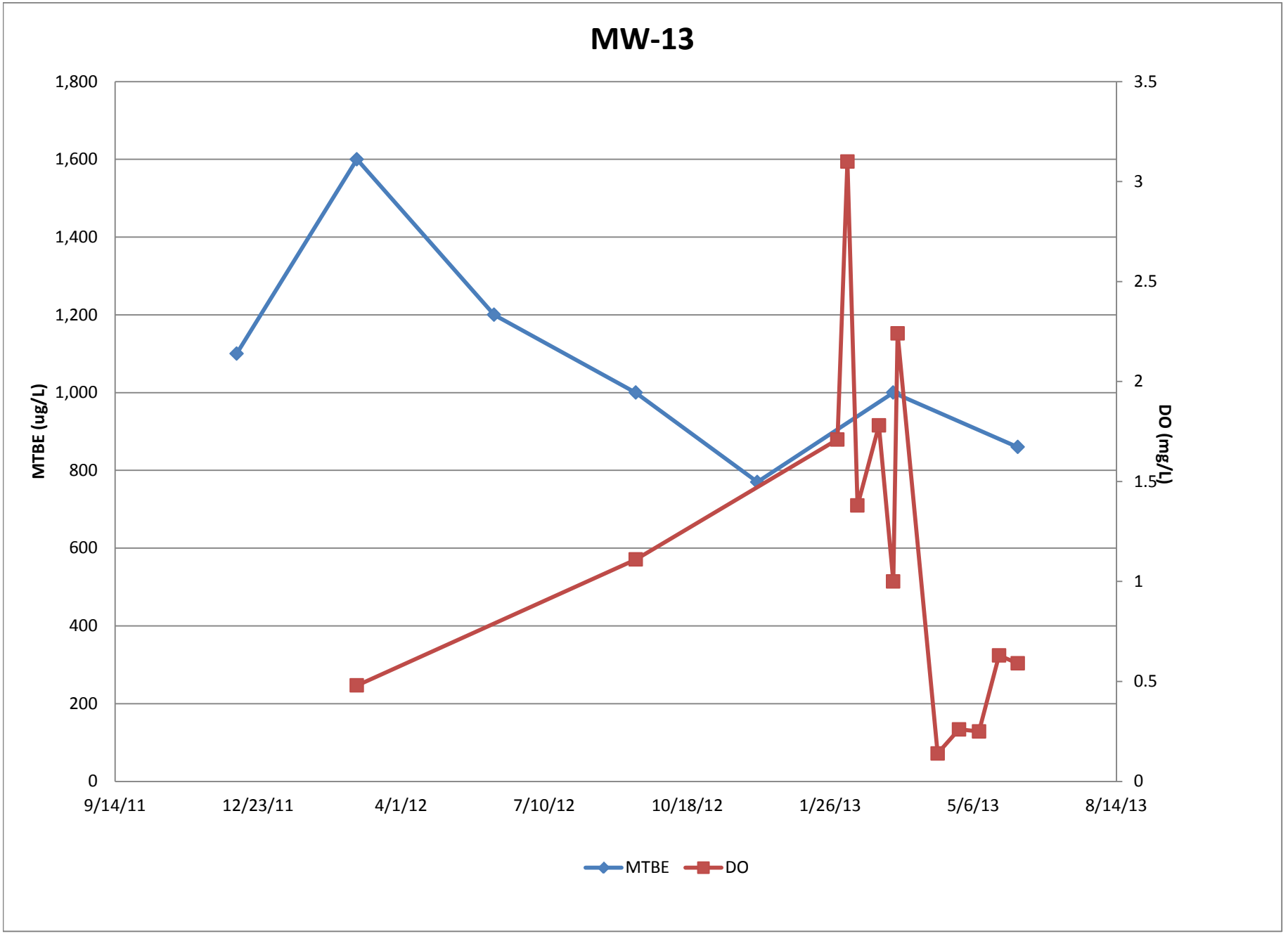
ATTACHMENT F

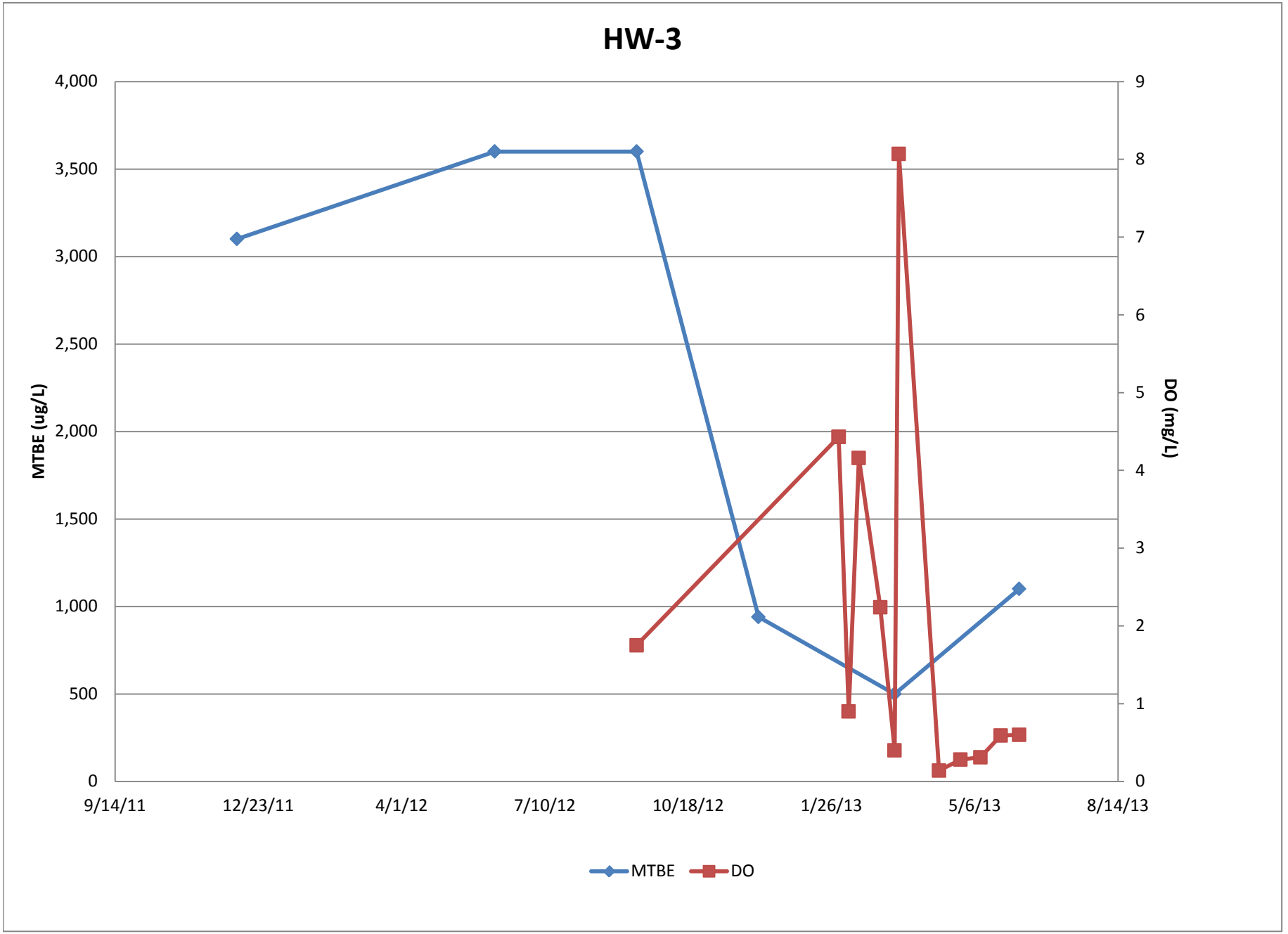
Third Pilot Test MTBE Concentration vs. Dissolved Oxygen Graphs


MW-6
2,500
2,000
1,500
1,000
500
0
MTBE (ug/L)
7
6
5
4
3
2
1
0
DO (mg/L)
9/14/11
12/23/11
4/1/12
7/10/12
10/18/12
1/26/13
5/6/13
8/14/13
MTBE
DO


MW-9
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
MTBE (ug/L)
6
5
4
3
2
1
0
DO (mg/L)
9/14/11
12/23/11
4/1/12
7/10/12
10/18/12
1/26/13
5/6/13
8/14/13
MTBE
DO


MW-11
2,500
2,000
1,500
1,000
500
0
MTBE
12
10
8
6
4
2
0
DO (mg/L)
9/14/11
12/23/11
4/1/12
7/10/12
10/18/12
1/26/13
5/6/13
8/14/13
MTBE
DO


MW-13
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
MTBE (ug/L)
3.5
3
2.5
2
1.5
1
0.5
0
DO (mg/L)
9/14/11
12/23/11
4/1/12
7/10/12
10/18/12
1/26/13
5/6/13
8/14/13
MTBE
DO

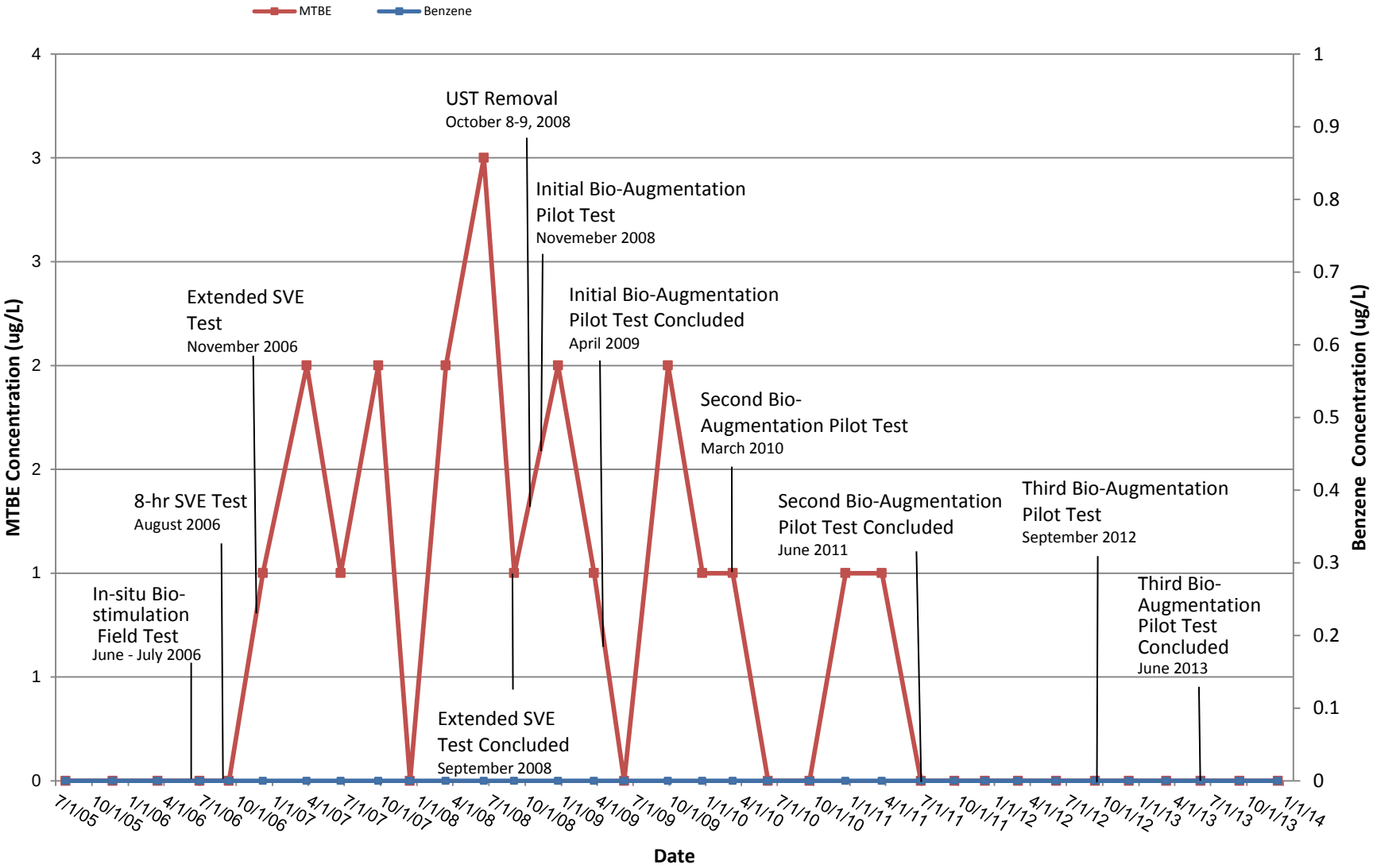

HW-3
MTBE (ug/L)
DO (mg/L)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
9
8
7
6
5
4
3
2
1
0
9/14/11
12/23/11
4/1/12
7/10/12
10/18/12
1/26/13
5/6/13
8/14/13
MTBE
DO

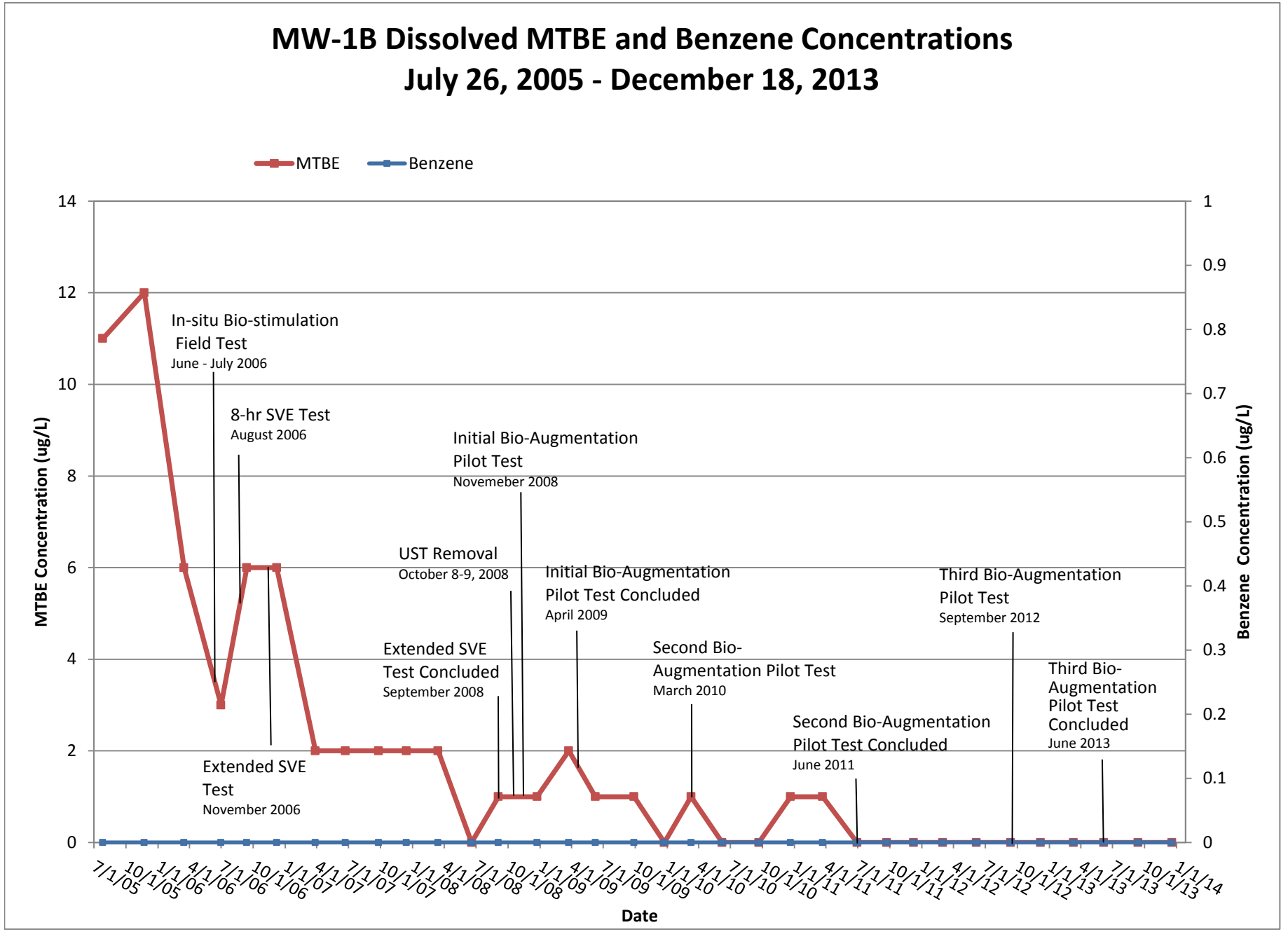
ATTACHMENT G

Dissolved MTBE and Benzene Concentration Graphs

MW-1A Dissolved MTBE and Benzene Concentrations

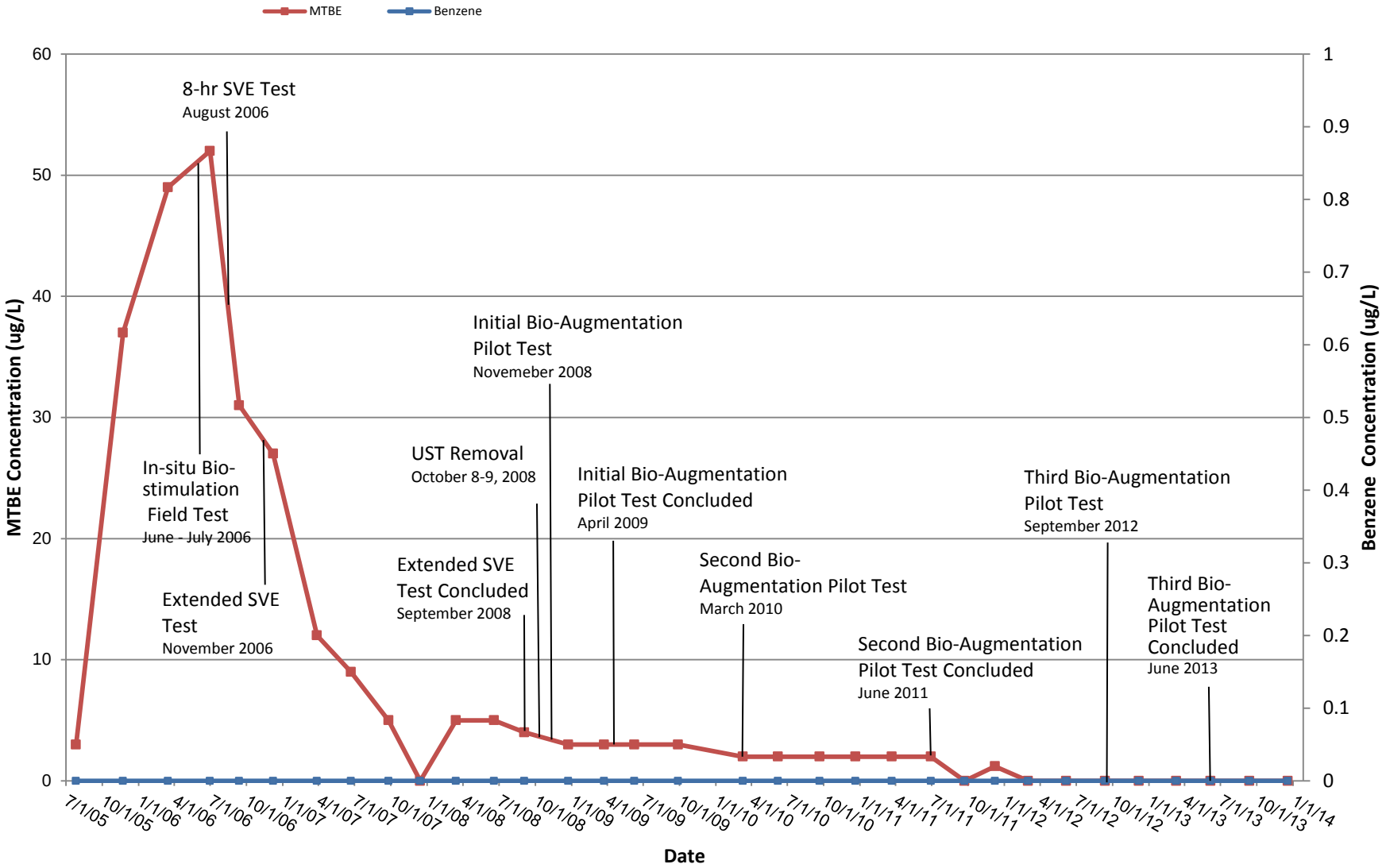
July 26, 2005 - December 18, 2013




MW-1B Dissolved MTBE and Benzene Concentrations
July 26, 2005 - December 18, 2013
MTBE
Benzene
MTBE Concentration (ug/L)
Benzene Concentration (ug/L)
Date
In-situ Bio-stimulation Field Test
June - July 2006
8-hr SVE Test
August 2006
Extended SVE Test
November 2006
Initial Bio-Augmentation Pilot Test
Novemeber 2008
UST Removal
October 8-9, 2008
Extended SVE Test Concluded
September 2008
Initial Bio-Augmentation Pilot Test Concluded
April 2009
Second Bio-Augmentation Pilot Test
March 2010
Second Bio-Augmentation Pilot Test Concluded
June 2011
Third Bio-Augmentation Pilot Test
September 2012
Third Bio-Augmentation Pilot Test Concluded
June 2013

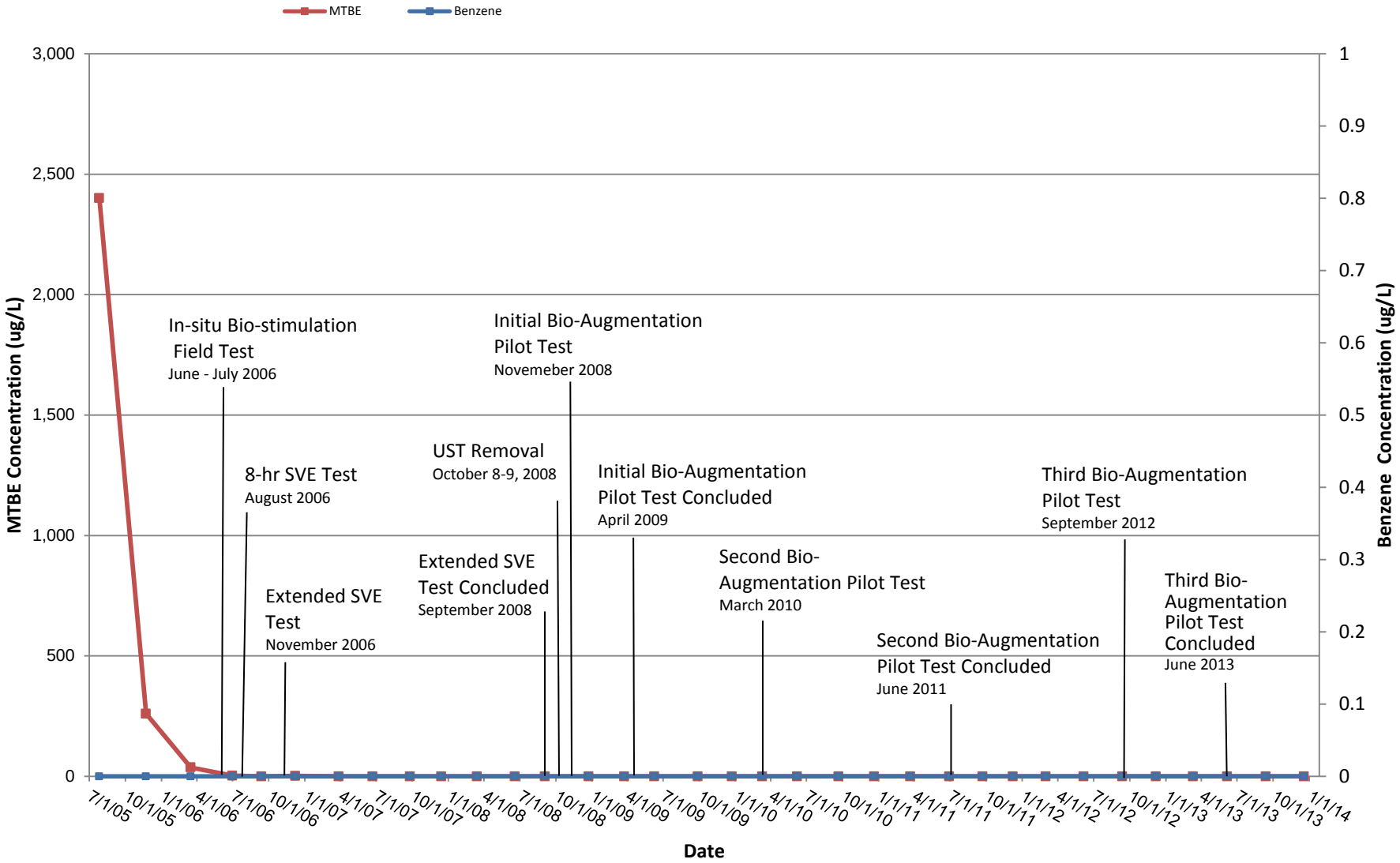
MW-2 Dissolved MTBE and Benzene Concentrations

July 26, 2005 - December 18, 2013



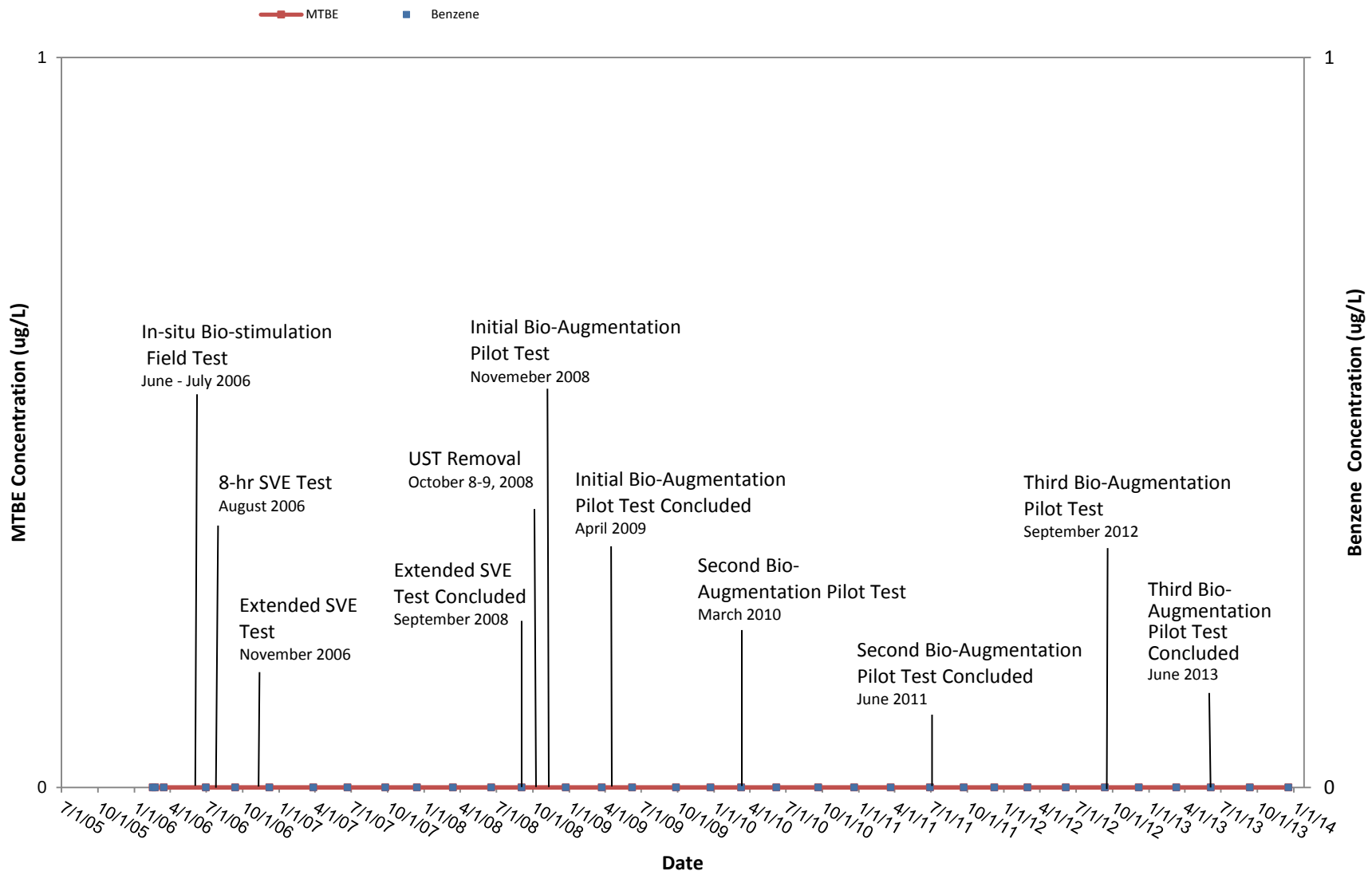
MW-3A Dissolved MTBE and Benzene Concentrations

July 26, 2005 - December 18, 2013



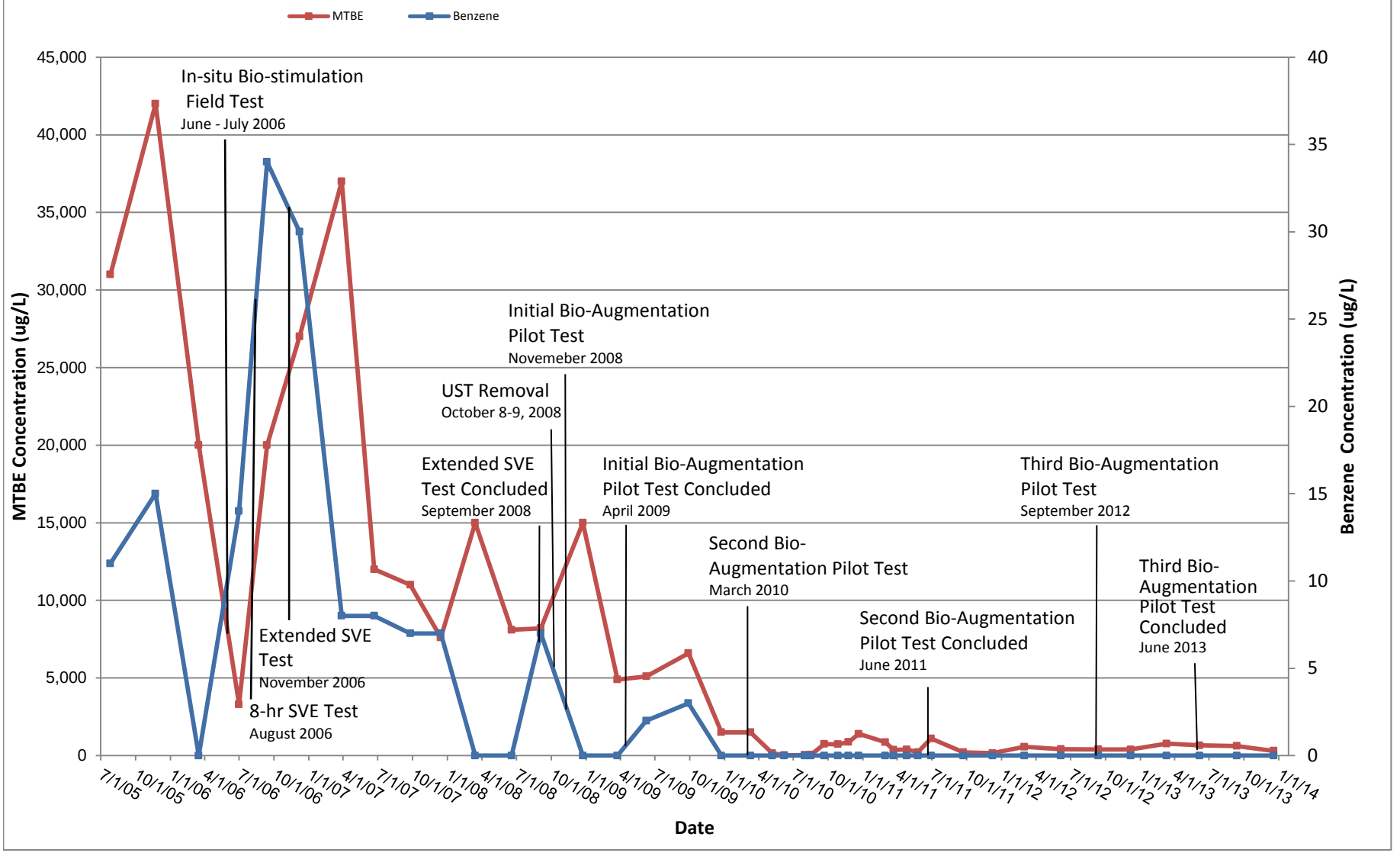
MW-3B Dissolved MTBE and Benzene Concentrations

July 26, 2005 - December 18, 2013



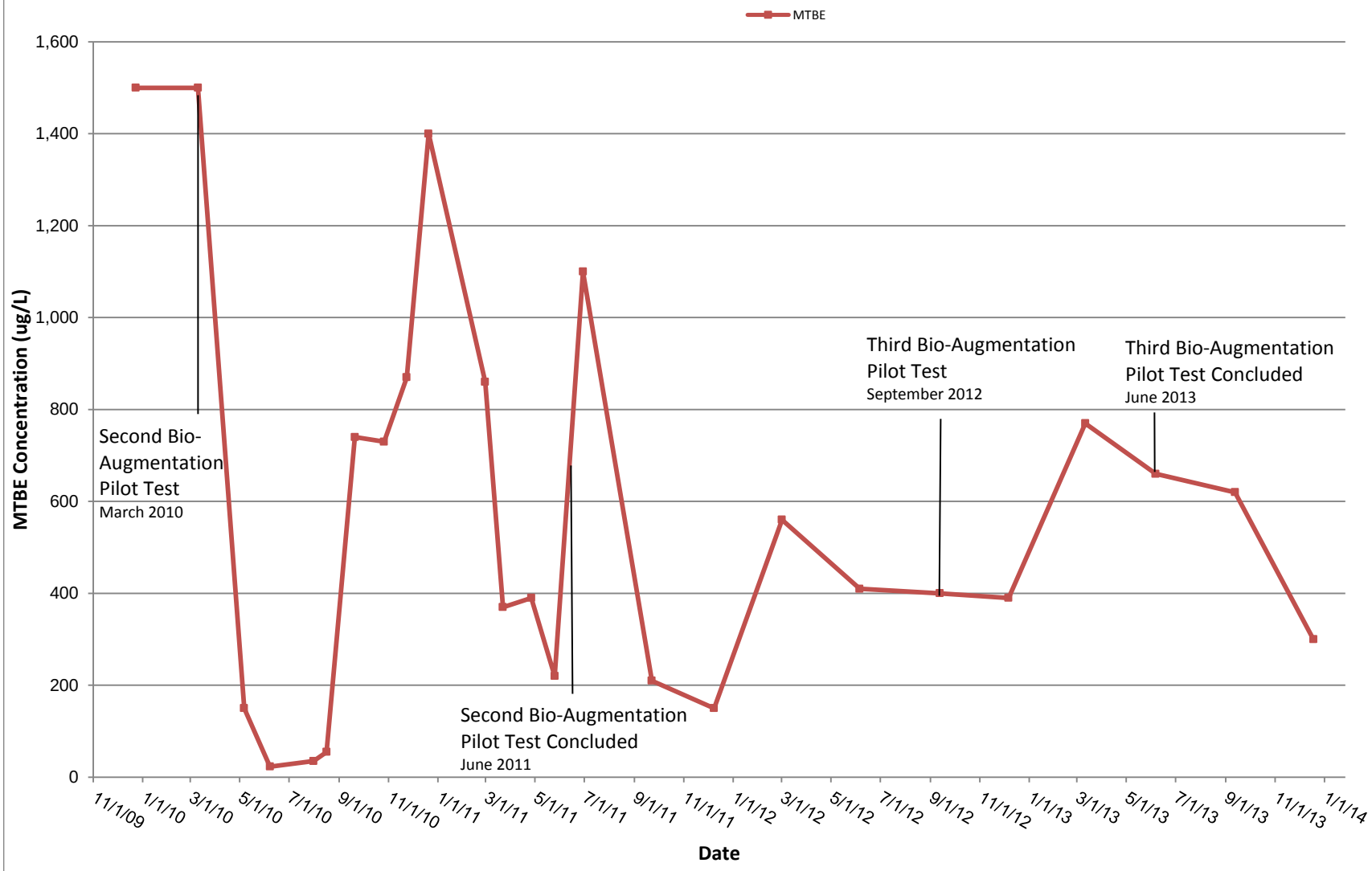
MW-4A Dissolved MTBE and Benzene Concentrations

July 26, 2005 - December 18, 2013



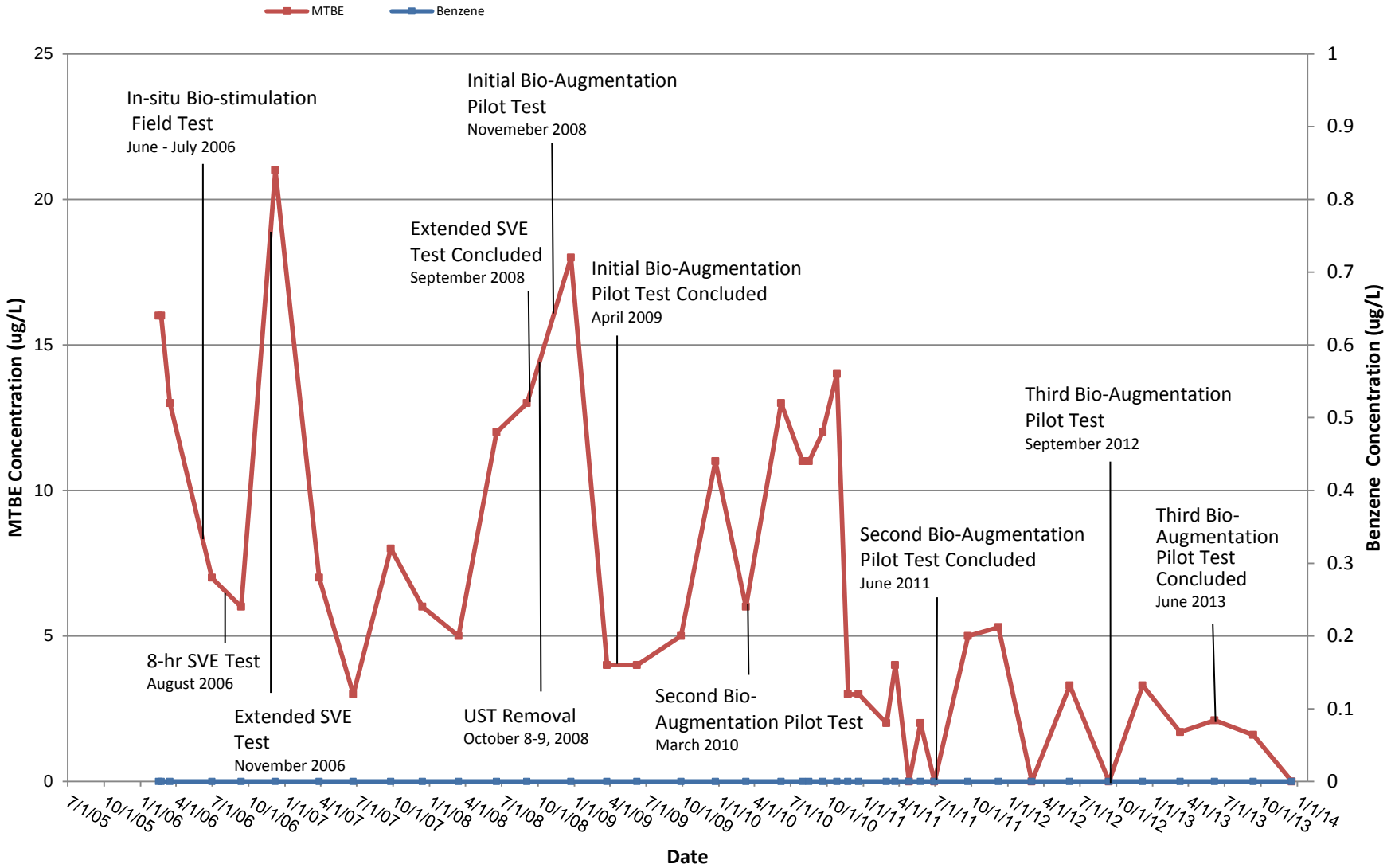
Limited MW-4A Dissolved MTBE Concentration

December 23, 2009 - December 18, 2013



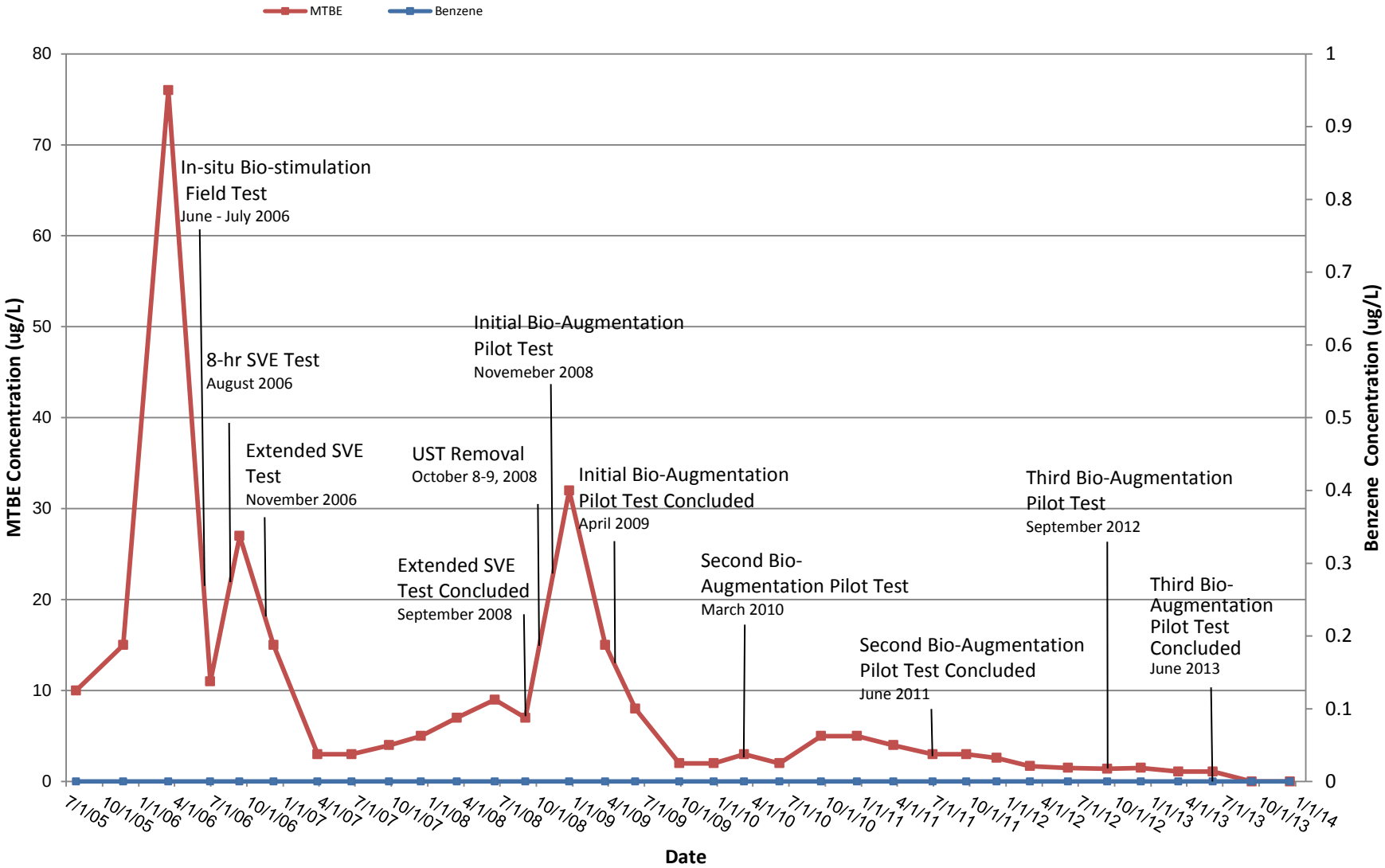
MW-3B Dissolved MTBE and Benzene Concentrations

February 16, 2006 - December 18, 2013



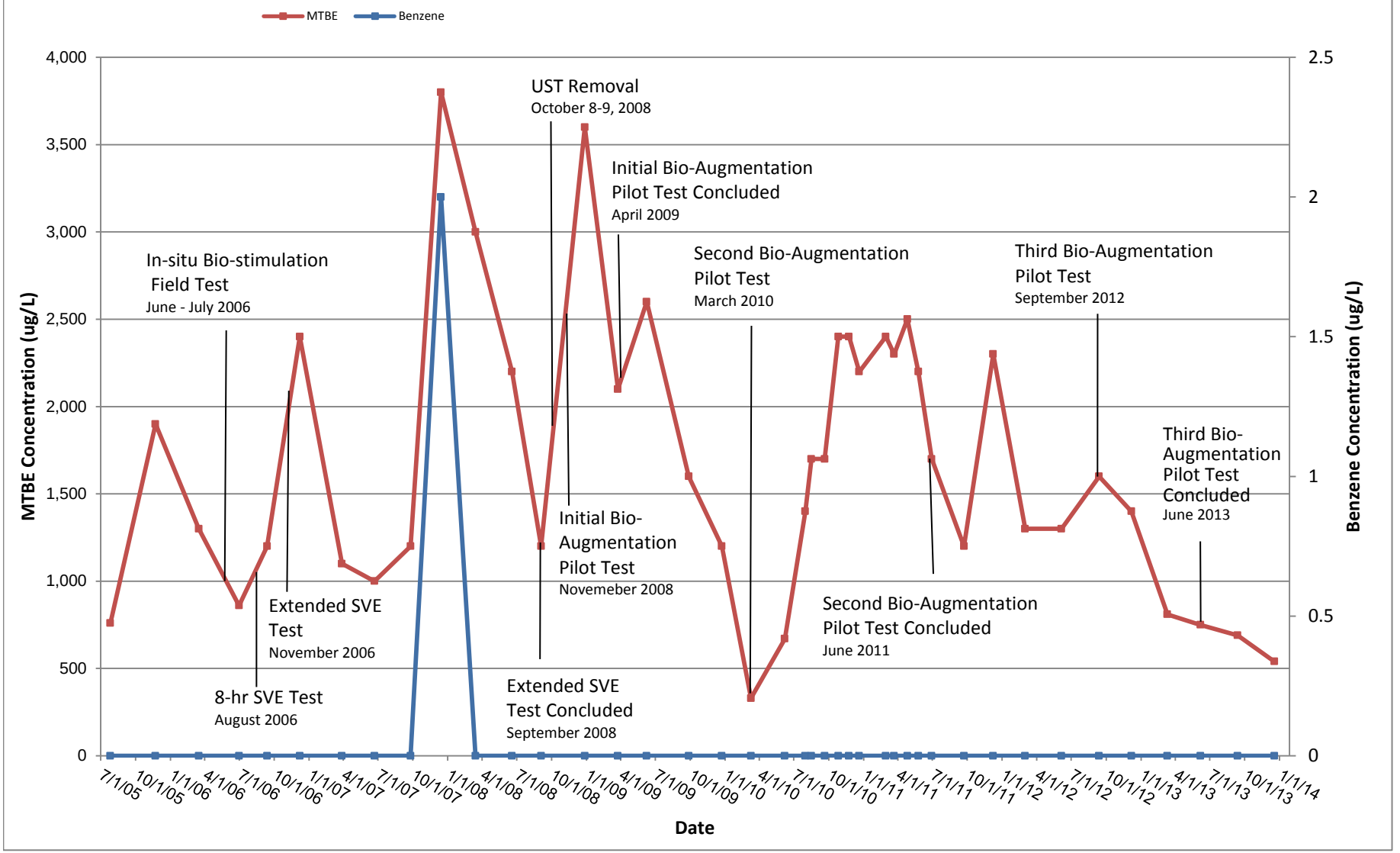
MW-5 Dissolved MTBE and Benzene Concentrations

July 26, 2005 - December 18, 2013



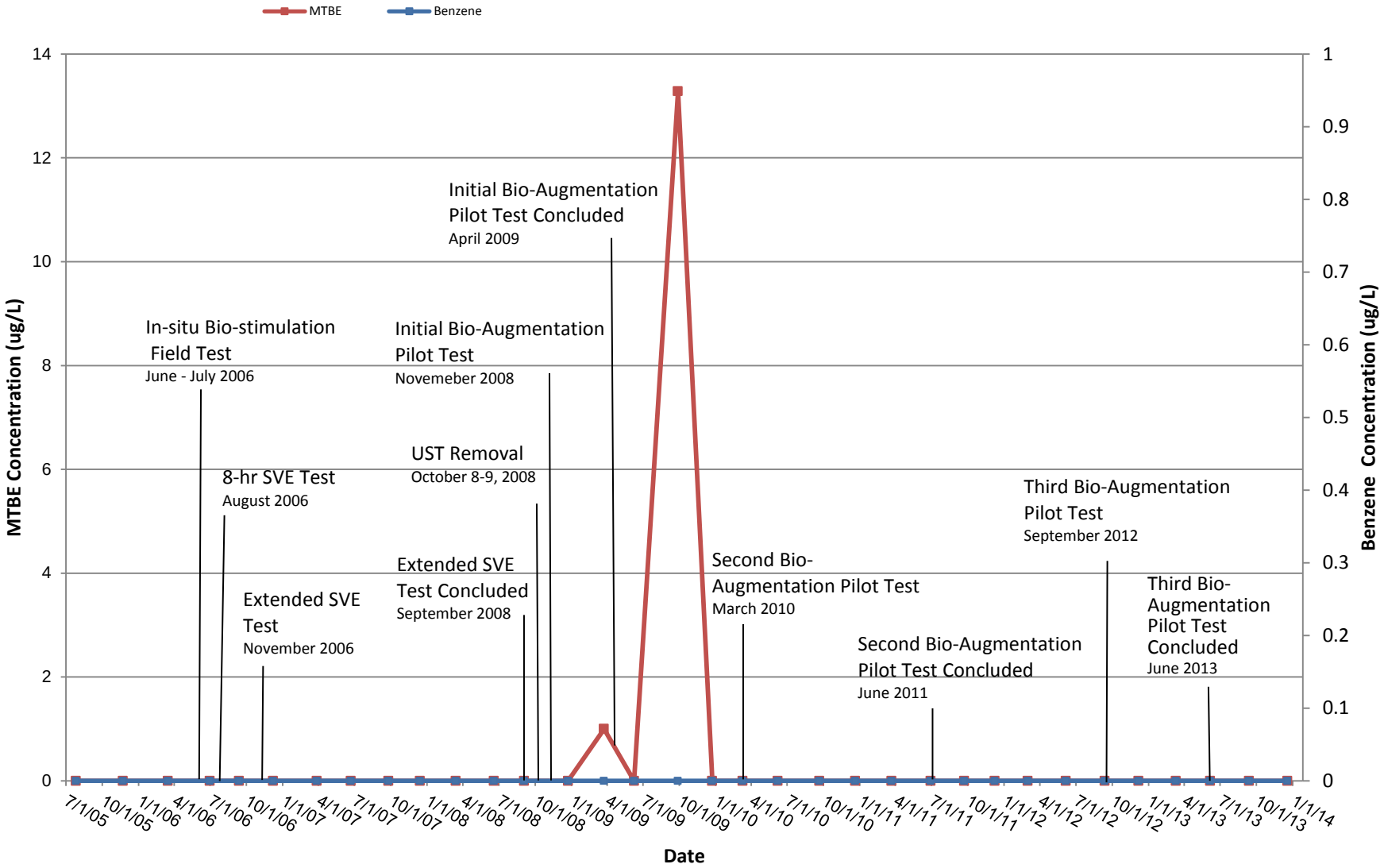
MW-6 Dissolved MTBE and Benzene Concentrations

July 26, 2005- December 18, 2013



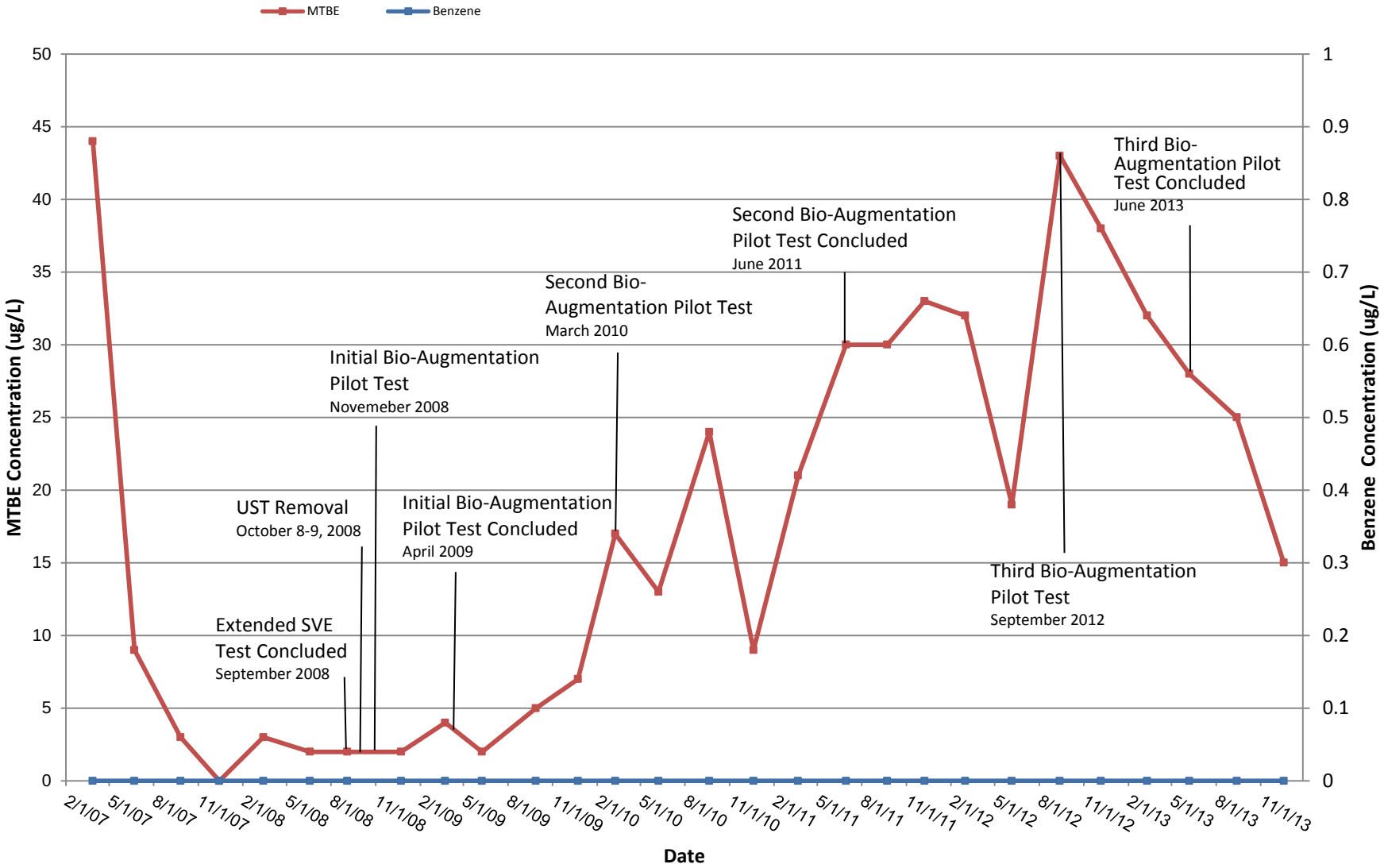
MW-7 Dissolved MTBE and Benzene Concentrations

July 26, 2005 - December 18, 2013



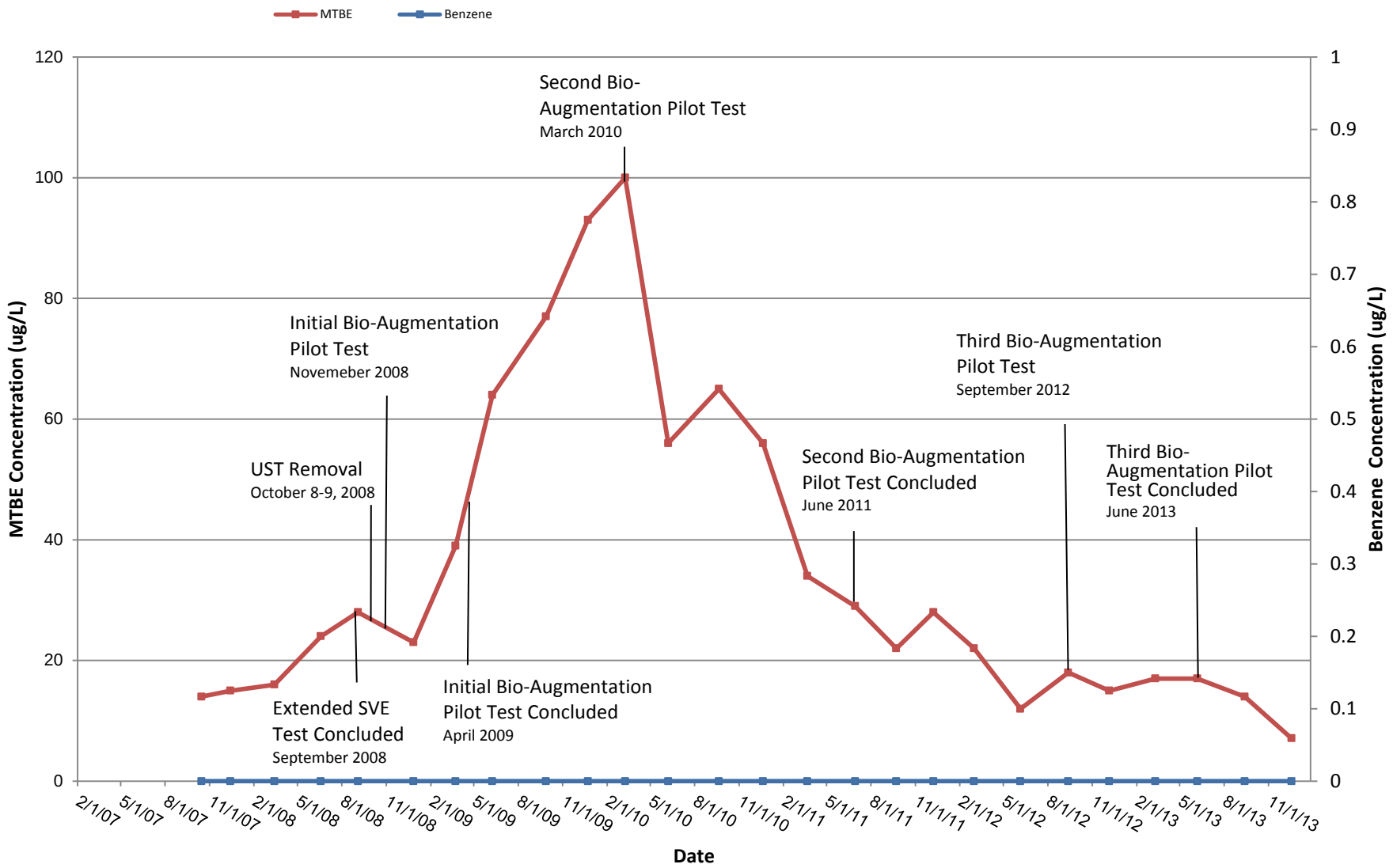
MW-8A Dissolved MTBE and Benzene Concentrations

March 28, 2007 - December 18, 2013



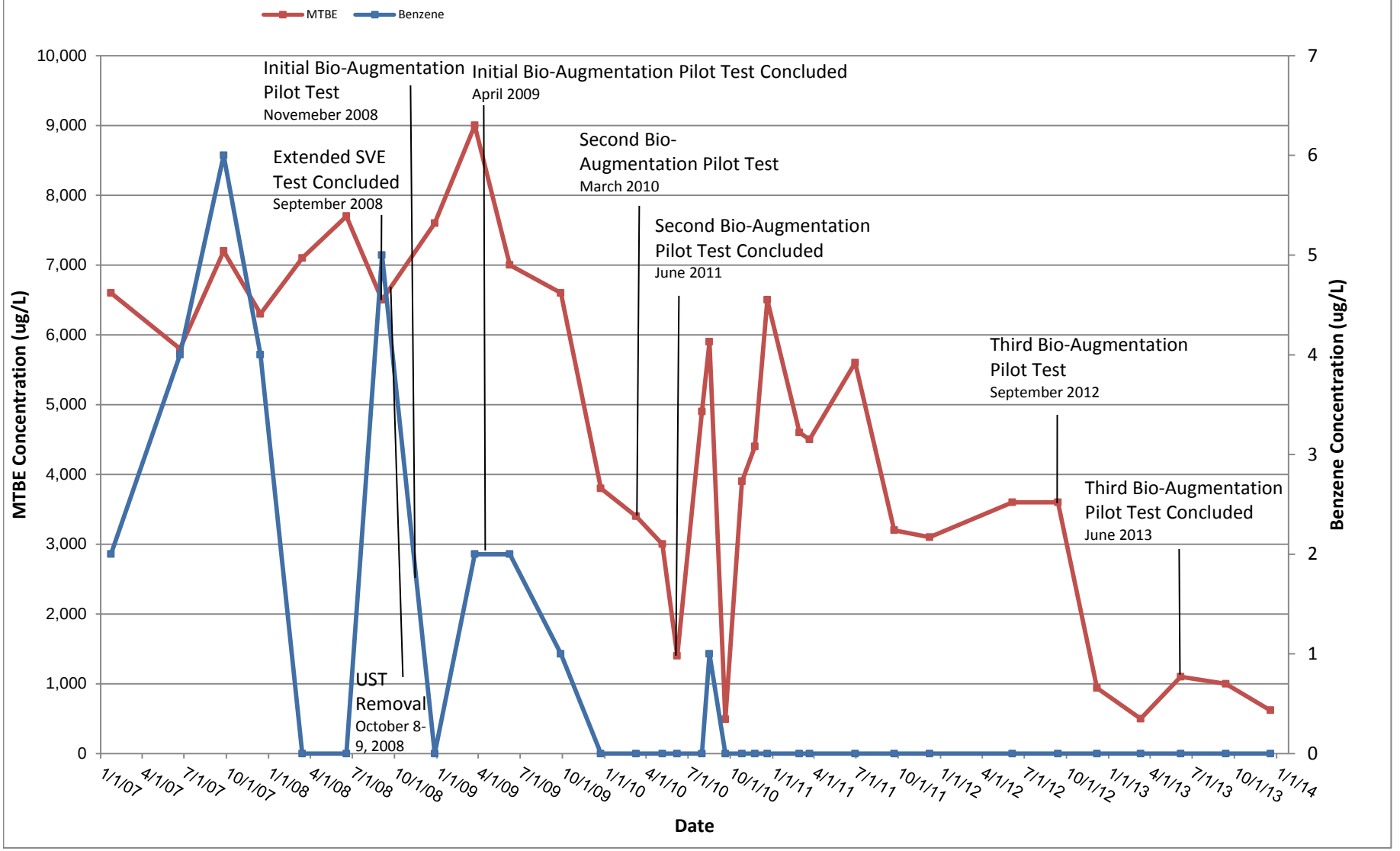
MW-8B Dissolved MTBE and Benzene Concentrations

October 15, 2007 - December 18, 2013



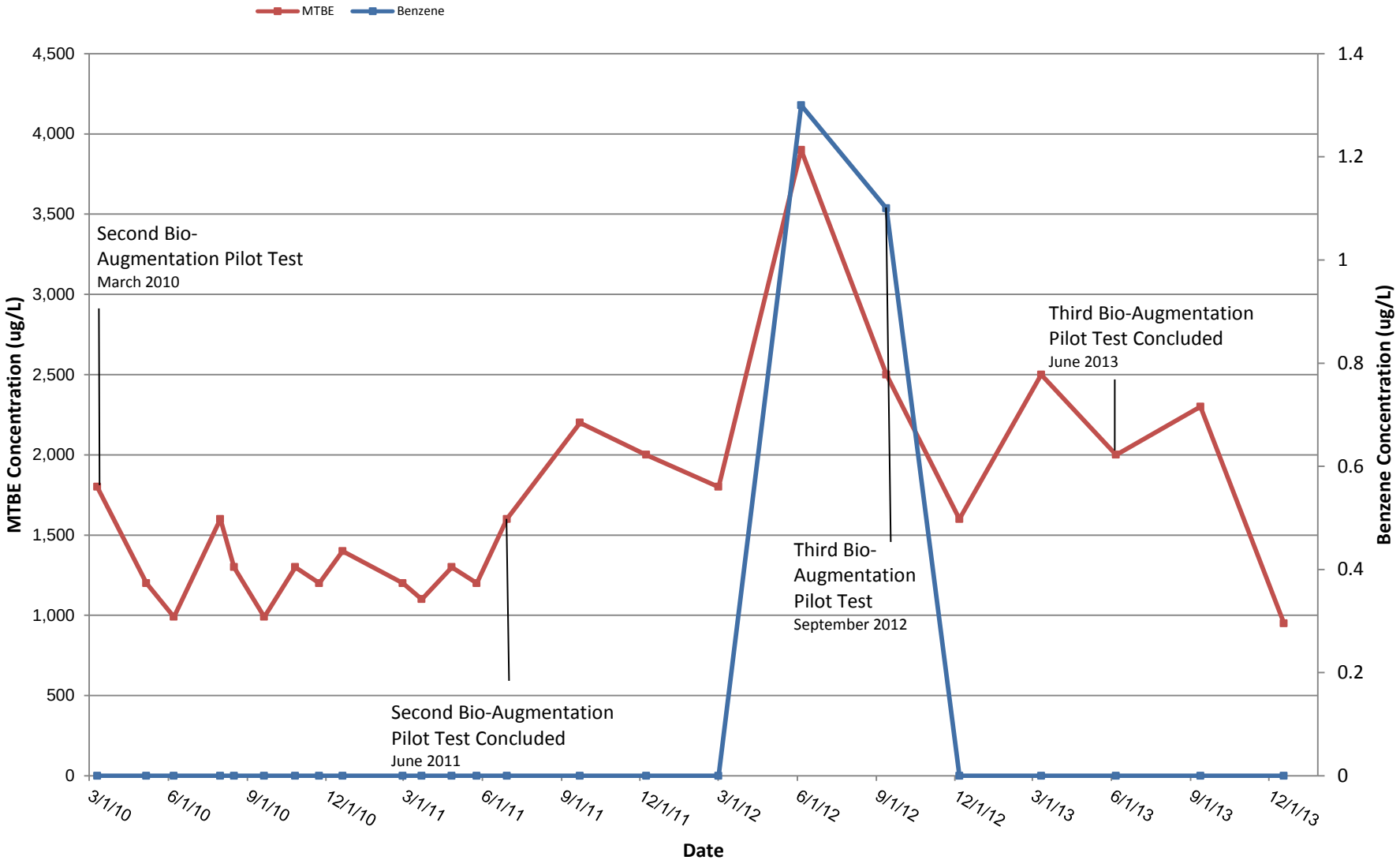
HW-3 Dissolved MTBE and Benzene Concentrations

January 23, 2007- December 18, 2013



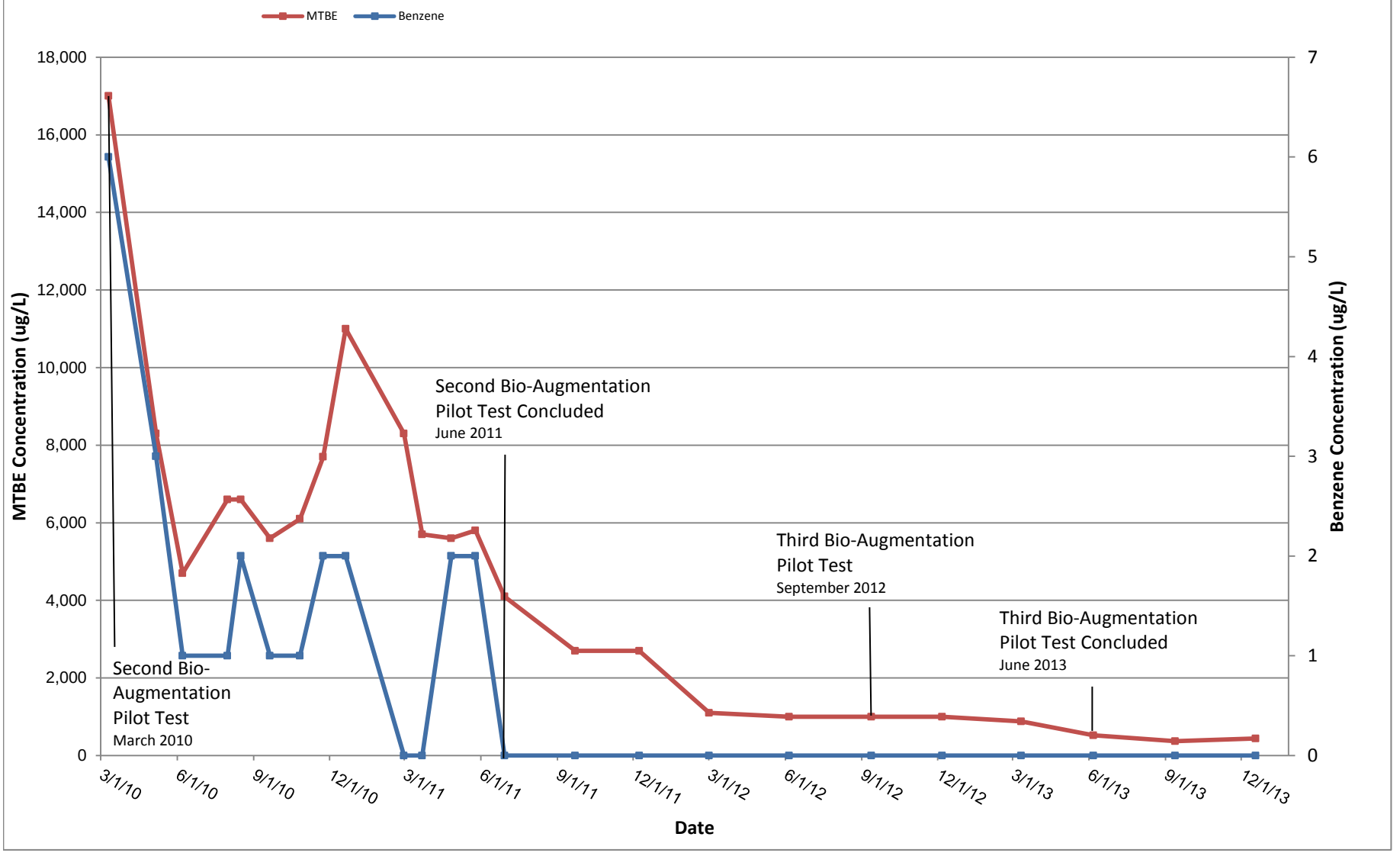
MW-9 Dissolved MTBE and Benzene Concentrations

March 10, 2010 - December 18, 2013



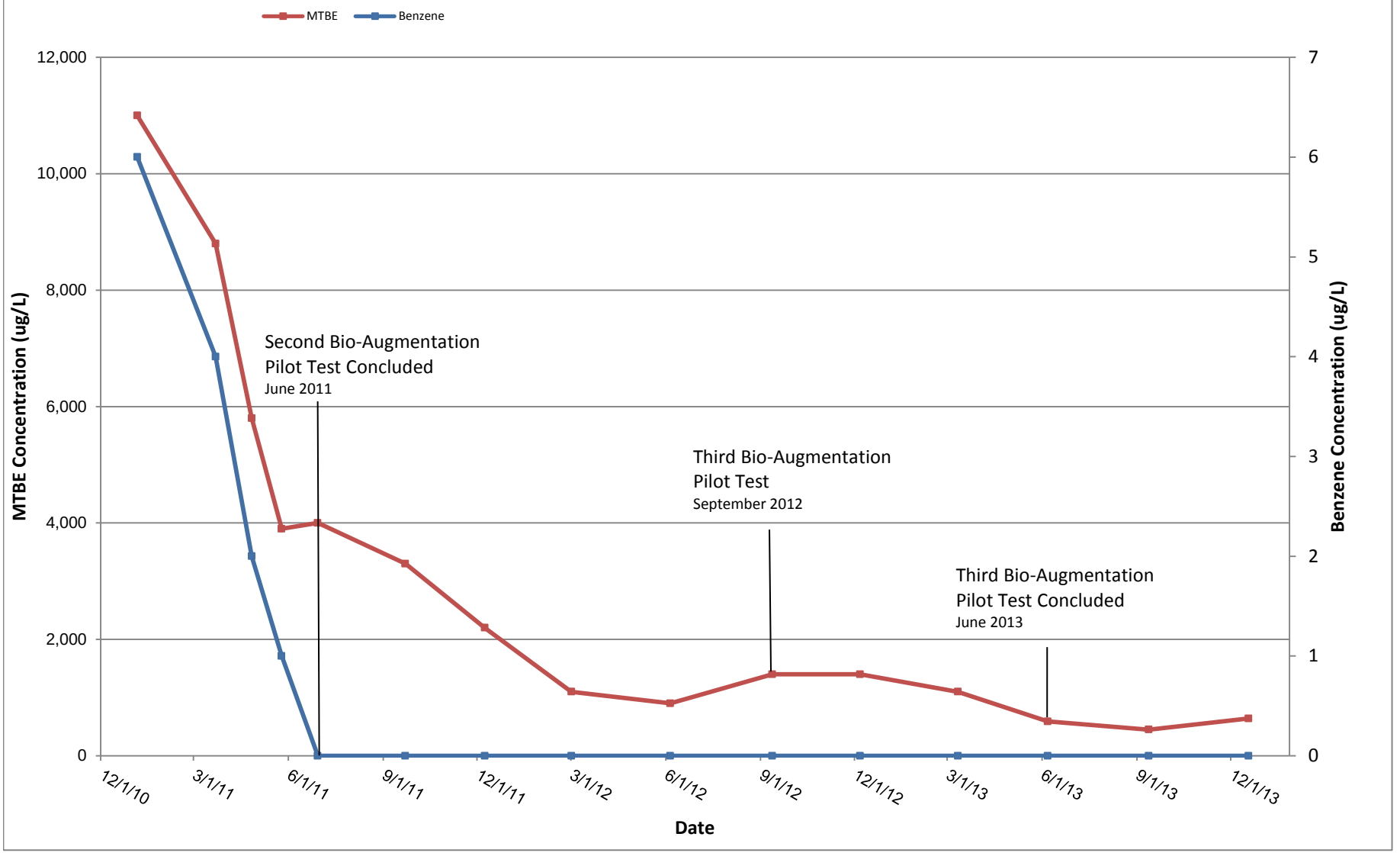
MW-10 Dissolved MTBE and Benzene Concentrations

March 10, 2010 - December 18, 2013



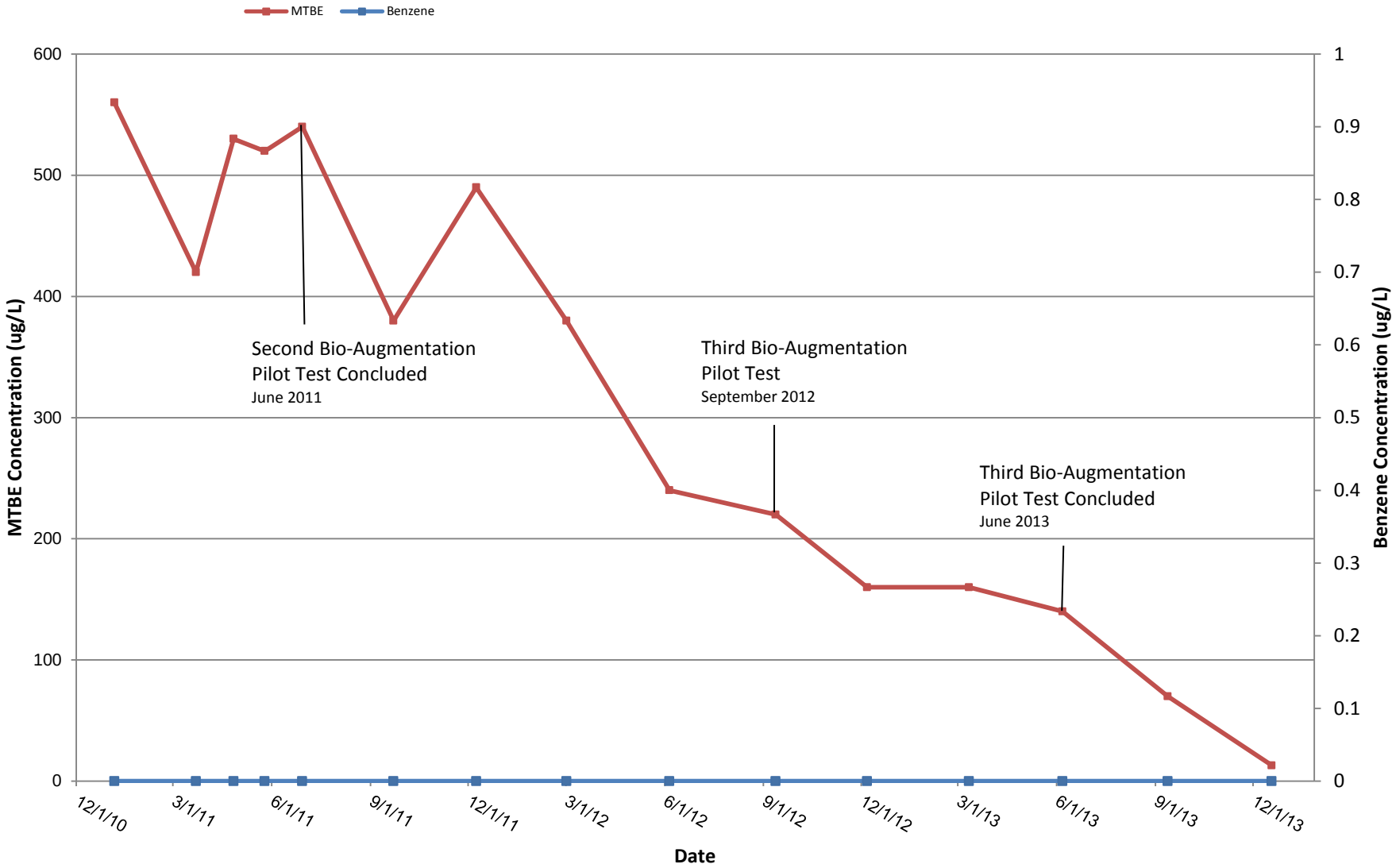
MW-11 Dissolved MTBE and Benzene Concentrations

January 5, 2011 - December 18, 2013



MW-12 Dissolved MTBE and Benzene Concentrations

January 5, 2011 - December 18, 2013



MW-13 Dissolved MTBE and Benzene Concentrations

January 5, 2011 - December 18, 2013