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ExxonMobil Environmental Services

Corrective Action Plan

ExxonMobil Site #14489
285 Old Bayview Road, North East, MD

MDE Case No. 1986-1205-CE

9 September 2011

ARCADIS

Corrective Action Plan

ExxonMobil Site #14489
285 Old Bayview Road,
North East, Maryland

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1. Introduction

ARCADIS U.S., Incorporated (ARCADIS) on behalf of ExxonMobil Environmental Services (EMES) and ExxonMobil Corporation (ExxonMobil) is pleased to submit a Corrective Action Plan (CAP) for the former Exxon Station located at 285 Old Bayview Road, North East, Maryland. The Maryland Department of Environment (MDE) Case Number assigned to this site is 1986-1205-CE. A site location figure is included as Figure 1 and a site plan is included as Figure 2.

Currently, twelve groundwater monitoring wells and two off-site potable wells are sampled on a quarterly basis as requested in an MDE letter dated May 15, 2009. Correspondences with MDE are included as Appendix A. The following CAP requests MDE approval to install three on-site injection wells and inject sodium persulfate to reduce petroleum hydrocarbon mass on-site and reduce dissolved phase MTBE concentrations in two downgradient potable wells. The site background and methodology for the sodium persulfate injection are discussed in further detail below.

1.1 Site Description

The property is currently an inactive Exxon retail station located at the intersection of Route 274 and Old Bayview Road. Three gasoline underground storage tanks (USTs) were removed in 2007. A two-story building remains on site. The surrounding area land use is mixed commercial and residential. The site is bordered by residential houses to the north and east, an open lot to the south and an auto repair shop to the west.

1.2 Site Background

Following the discovery of a drain line leaking gasoline at the site, seven monitoring wells (MW-1 through MW-7) were installed in April and May 1986. Liquid phase hydrocarbon (LPH) was detected and MDE Case 89-0867 was opened. Four additional wells (MW-8 through MW-11) were installed in May 1989. A Remedial Investigation (RI) Report was submitted to MDE in May 1998 (Hunter Services 1991).

In July 1990 a Remedial Action Plan (RAP) was submitted to the MDE, detailing plans for a recovery trench, well and treatment system. The site remediation system began operation in January 1991 and was operated until October 1996.

Five additional monitoring wells (MW-12 through MW-16) were installed in March 1991 for site delineation as part of an Extended Site Assessment (Environmental Science and Engineering, Inc. 1991).

A vapor extraction pilot study was completed in March 1992.

A risk assessment was completed in June 1994.

Additional site characterization was completed in December 1997 “to delineate soil and groundwater quality adjacent to and downgradient from the potential source area (the UST system)” (Land Tech Remedial, Inc. 1998). Soil and groundwater samples were collected from three boring locations.

The USTs at the site were removed in July 2007 and a Post Excavation Sampling Report was submitted to MDE in December 2007.

In accordance with the site status letter issued by MDE, dated May 5, 2009, the twelve groundwater monitoring wells and two of the off-site potable wells (259 and 261 Old Bayview Road) are currently sampled quarterly. Groundwater and potable well monitoring data collected during monitoring events since 1995 are included in groundwater monitoring reports previously submitted to MDE. ExxonMobil currently maintains a Granular Activated Carbon (GAC) filtration system for the potable well at 259 Old Bayview Road).

2. Conceptual Site Model

The geology and hydrogeology is based on investigative activities conducted by previous consultants and groundwater results are from the most recent sampling event conducted by ARCADIS in July 2011.

2.1 Geology and Hydrogeology

The site is located in the Coastal Plain physiographic province. Historical soil borings indicate a lithology of clay with trace mica, sand, and gravel to a depth of approximately 5 to 10 feet below land surface (bls), overlying a saprolite. Historical boring logs are included in **Appendix B**.

Depth to groundwater was measured during the most recent groundwater monitoring event in July 2011 and ranged from 3.92 feet below ground surface (ft bgs) at MW-5A to 14.09 ft bgs at MW-12. Based on this gauging data, groundwater flow at the site appears to be to the south (**Figure 3**).

2.2 Soil Quality

Soil analytical samples collected during well installation and site characterization showed no constituent concentrations above MDE Non-Residential Cleanup Standards (ESE 1991; Land Tech 1998).

2.3 Groundwater Quality

As reported in the most recent groundwater monitoring report, groundwater samples were collected on 12 July 2011 and submitted to TestAmerica Laboratories of Nashville, Tennessee for analysis of for analysis of full list volatile organic compounds (VOCs) and fuel oxygenates using Environmental Protection Agency (EPA) Method 8260B. No LPH was detected during this reporting period. Historical groundwater monitoring data are included in Table 1.

Benzene, toluene, ethylbenzene, methyl tert-butyl ether (MTBE), and naphthalene were detected at concentrations exceeding MDE Groundwater (GW) Clean-up Standards at one or more well:

- Benzene was detected at concentrations exceeding the MDE GW standard (5 µg/L) in five samples (MW-1A, MW-2A, MW-5A, MW-11, and MW-14) with a maximum concentration of 326 µg/L in the sample collected from MW-2A.

- Toluene was detected at a concentration exceeding the MDE GW standard (1,000 µg/L) in one sample (MW-1A) at a concentration of 2,450 µg/L.

- Ethylbenzene was detected at concentrations exceeding the MDE GW standard (700 µg/L) in three sample (MW-1A, MW-2A, and MW-5A) with a maximum concentration of 1,460 µg/L in the sample collected from MW-2A.

- MTBE was detected at concentrations exceeding the MDE GW standard (20 µg/L) in five samples (MW-1A, MW 2A, MW-11, MW-12, and MW-14) with a maximum concentration of 207 µg/L in the sample collected from MW-2A.

- Naphthalene was detected at concentrations exceeding the MDE GW standard (0.65 µg/L) in five samples (MW-1A, MW 2A, MW-5A, MW-11, and MW-14) with a maximum concentration of 267 µg/L in the sample collected from MW-5A.

The highest concentrations of benzene, toluene, ethylbenzene, and MTBE have been detected in monitoring wells MW-1A and MW-2A, which are located hydraulically downgradient of the former UST locations (Figure 3). At off-site monitoring well MW-14, benzene and MTBE concentrations greater than the MDE GW standard (161 and 79.1 ug/L, respectively) were detected in July 2011. Benzene and MTBE concentrations at monitoring wells MW-13 and MW-15, which are located cross-gradient from MW-14, were significantly lower (less than 6 ug/L) than concentrations detected at MW-14.

The MTBE concentration detected in the influent sample collected from the GAC filtration system at 259 Old Bayview Road in July 2011 was 43.2 ug/L, which is greater than the MDW GW standard. All analyte concentrations in the effluent sample collected after GAC filtration at 259 Old Bayview Road were below the laboratory reporting limits. MTBE was detected below the MDE GW standard in the potable water sample collected at 261 Old Bayview Road (7.41 ug/L). Based on these observations, MTBE detected at 259 and 261 Old Bayview Road appear to be migrating from the former UST locations through MW-14. The locations of the potable wells relative to the former Exxon station are shown in Figure 1.

Concentration trends plotted over time for benzene and MTBE for selected monitoring wells (Appendix C) indicate a general decrease in concentrations. However, concentrations have fluctuated and have been generally above the MDE GW standard. This suggests the presence of residual volatile organic compound (VOC) mass adsorbed to soil in the former UST and/or dispenser island locations.

3. Proposed Corrective Actions

The objective of the proposed corrective action is to reduce MTBE concentrations detected in downgradient potable water at 259 and 261 Old Bayview Road (Figure 1) by reducing concentrations of dissolved phase hydrocarbons in groundwater, including MTBE, in the vicinity of the former dispenser island near well MW-1A.

The proposed correction action includes the installation of three permanent injection wells near wells MW-1A, MW-2A and MW-11 and the injection of a chemical oxidant (sodium persulfate) and pre- and post-injection groundwater monitoring.

Pre- and post-remedial groundwater sampling will be conducted to evaluate the effectiveness of the sodium persulfate injections as part of the existing quarterly monitoring program. Sulfate analysis will be added to the analytical parameters to evaluate the distribution of the injection solution.

3.1 Well Installation

Final proposed locations of three injections wells will be marked after utility location and markings are complete. Utilities will be marked using Miss Utility and also a private utility locating contractor. Well locations will be adjusted to avoid existing overhead and underground utilities. Drilling in unconsolidated soil will be completed using hollow stem auger techniques. The proposed locations of injections wells are shown on Figure 4.

The injection wells will be installed to a depth of approximately 14 feet bgs. Soil samples will be collected during drilling. The ARCADIS field geologist will record the soil lithology and screen the soil samples with a photoionization detector (PID). The injection wells will be screened across the section of the surficial aquifer with the greatest permeability and highest PID readings. Injection wells will be constructed with 2-inch diameter polyvinyl chloride (PVC) riser pipe and 10-foot PVC screens. Sand filter pack will be placed within the space between the screen and borehole annulus to a height two feet above the top of the screen. A two-foot thick bentonite seal will be placed above the filter pack and hydrated. A bentonite amended grout will be placed from the top of the bentonite seal to within 2-3 feet of the ground surface. Each well will be completed with a flush mount steel well box.

3.2 Pre-Remedial Sampling Event

Pre-remedial sampling will be conducted as part of the existing quarterly monitoring program. Given the current schedule, pre-remedial sampling will be conducted in October 2011.

Groundwater samples will be collected from monitoring wells via low-flow methodology and analyzed for BTEX, naphthalene, and fuel oxygenates by EPA Method 8260, and sulfate by EPA Method 9056 (or comparable valid method).

3.3 Sodium Persulfate Injection

The selected chemical oxidant, sodium persulfate, will be injected into the subsurface via the three injection wells. A ferrous iron activator (ferrous sulfate) will also be injected with the sodium persulfate. Sodium persulfate is a strong oxidizer that will act to degrade the benzene and MTBE within the radius of influence around the injection wells.

An injection volume of approximate 2,500 gallons per injection well (7,500 gallons per event) is proposed with target concentrations of 50 grams per liter (g/L) of sodium persulfate and 0.5 g/L ferrous iron. The target injection rate is 1 gallons per minute (gpm) using gravity feed. Monitoring wells will also be periodically monitored for field parameters, such as temperature and pH, to monitor the movement of persulfate into the wells. The total duration of the event is expected to be approximately 5 days. Material Safety Data Sheets for sodium persulfate and ferrous iron are included in Appendix D.

3.4 Post-Remedial Sampling Event

Post-remedial sampling will be conducted as part of the existing quarterly monitoring program. Given the current schedule, post-remedial sampling will be conducted in January 2012.

Groundwater samples will be collected from monitoring wells via low-flow methodology and analyzed for BTEX, naphthalene, and fuel oxygenates by EPA Method 8260, and sulfate by EPA Method 9056 (or comparable valid method).

Evaluation of the oxidant performance will be included with the groundwater monitoring reports. The necessity of additional injections will be evaluated after two post-injection sampling events (assumed to be in 1st Quarter 2012).

3.5 Groundwater Monitoring Program Modification

Currently, twelve monitoring wells and two off-site potable wells are sampled quarterly, ARCADIS requests MDE approval to modify the current groundwater monitoring program to allow monitoring wells with lower VOC concentrations to be sampled annually, instead of quarterly. The modified monitoring program includes continued quarterly sampling for five monitoring wells (MW-1A, MW-2A, MW-5A, MW-11 and MW-14) and two off-site potable wells (259 and 261 Old Bayview Road) and annual sampling for seven monitoring wells (MW-3A, MW-8, MW-10, MW-12, MW-13, MW-15, and MW-18) as shown on Table 3. The modified monitoring program will be implemented after completion of the post-remedial sampling event, pending MDE approval.

Selected wells may be sampled for sulfate during groundwater monitoring events to evaluate the longevity of the sodium persulfate injection.

3.6 Remedial Endpoints

Remedial activities will be considered complete when defined remedial endpoints are achieved. The following sections describe the remedial endpoints for each constituent of concern.

3.6.1 Liquid Phase Hydrocarbon Endpoint

MDE regulations require that all liquid phase hydrocarbons (LPH) be removed to the maximum extent practicable. No LPH is present in on-site wells, so this endpoint has already been achieved.

3.6.2 Dissolved Phase Hydrocarbon Endpoint

The MDE OCP guidance indicates that to achieve the site goal for dissolved phase remediation, risks posed by the release must be removed, contamination migration must be prevented, and asymptotic trend in dissolved-phase contamination must be established. The purpose of the sodium persulfate injection is to reduce dissolved-

phase concentrations thereby preventing migration of contaminants and establishing long-term declining trends in constituent concentrations.

The goals of this phase of remedial action are to:

1. Reduce concentrations of benzene, toluene, ethylbenzene, and MTBE measured in groundwater monitoring wells to 25% of their concentrations from the pre-remedial (assumed October 2011) baseline sampling event.

2. Reduce MTBE concentrations in potable water at 259 Old Bayview Road to below the MDE GW standard to allow removal of the GAC filtration system.

4. Project Schedule

The following schedules are proposed for the corrective action activities.

4.1 Implementation and Monitoring Schedule

The pre-remedial sampling event will be conducted during the quarterly monitoring event scheduled after MDE approval of this CAP (assumed to be October 2011).

The injection well installation and sodium persulfate injection will be completed following the pre-remedial sampling.

The post-remedial sampling will be completed during the quarter monitoring event scheduled after the completion of the sodium persulfate injection (assumed to be January 2012).

The modified groundwater monitoring program will be implemented following the post remedial sampling event, pending MDE approval.

4.2 Reporting Schedule

A summary report of the injection event will be submitted concurrently with the subsequent groundwater monitoring report, following completion of the post-remedial sampling.

4.3 Schedule Summary

The following summarizes the project schedule assuming October 2011 CAP approval:

Date	Field Event/Report
October 2011	Receive CAP approval. Conduct pre-remedial groundwater sampling event (described in Section 3.2)
November - December 2011	Install injection wells and conduct injections (described in Section 3.3)
January 2012	Conduct post-remedial groundwater sampling event (described in Section 3.4)

February - March 2012	Submit groundwater monitoring report, and report of results
2nd Quarter 2012	Conduct quarterly groundwater monitoring event, per modified monitoring program, including evaluation of injection results

5. References

ARCADIS, 2011. Third Quarter 2011 Groundwater Monitoring Report, Former Exxon Facility #14489, 285 Old Bayview Road, North East, Maryland. September 2011.

Environmental Science & Engineering, Inc. (ESE). 1991. Extended Site Assessment Report, Mobil Northeast, 285 Old Bayview Road, Northeast, Maryland. May 1991.

Hunter Services, Inc. 1989. Remedial Investigation, Mobil Oil Corporation Retail Facility, 285 Old Bayview Road, Northeast, Maryland. August 1989.

Land Tech Remedial, Inc. Report of Additional Subsurface Site Characterization, Mobil Service Station #16-G1R, Northeast, Maryland. 2 February 1998.

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Tables

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L)** [5]	**Toluene (µg/L)** [1000]	**Ethyl-benzene (µg/L)** [700]	**Total Xylenes (µg/L)** [10000]	**Total BTEX (µg/L)** --	**MTBE (µg/L)** [20]	**TBA (µg/L)** --	**DIPE (µg/L)** --	**ETBE (µg/L)** --	**TAME (µg/L)** --	**Naph-thalene (µg/L)** [0.65]	**Comments**
MW-1A	6/1/2005	97.65	5.23	ND	ND	92.42	**560**	**5,770**	**2,360**	8,970	17,660	**156**	ND(500)	NA	NA	NA	NA	
	12/7/2005	97.65	6.77	ND	ND	90.88	**252**	**2,410**	**2,560**	7,500	12,722	**149**	ND(500)	NA	NA	NA	NA	
	5/24/2006	97.65	6.82	ND	ND	90.83	**97.7**	**1,260**	**1,720**	4,870	7,948	**114**	ND(500)	NA	NA	NA	NA	
	11/7/2006	97.65	5.38	ND	ND	92.27	**116**	703	**1,130**	2,880	4,829	**112**	92.2 J	NA	NA	NA	NA	
	6/21/2007	97.65	6.15	ND	ND	91.50	**145**	**1,750**	**1,020**	3,220	6,135	**53.3**	ND(250)	NA	NA	NA	NA	
	12/11/2007	97.65	7.02	ND	ND	90.63	**212**	**3,730**	**2,380**	8,180	14,502	**133**	ND(500)	NA	NA	NA	NA	
	3/24/2008	97.65	4.94	ND	ND	92.71	**216**	**3,280**	**2,270**	7,550	13,316	**510**	ND(630)	NA	NA	NA	NA	
	6/29/2008	97.65	6.10	ND	ND	91.55	**201**	**2,970**	**1,520**	5,380	10,071	**593**	ND(500)	ND(100)	ND(100)	ND(100)	**378**	
	8/14/2008	97.65	7.12	ND	ND	90.53	**151**	**2,300**	**1,410**	4,460	8,321	**561**	ND(500)	ND(100)	ND(100)	59.2 J	**345**	
	11/20/2008	97.65	7.12	ND	ND	90.53	**150**	**2,330**	**1,860**	6,030	10,370	**398**	ND(630)	ND(130)	ND(130)	58.9 J	**497**	
	2/11/2009	97.65	5.35	ND	ND	92.30	**185**	**2,720**	**1,510**	5,440	9,855	**307**	ND(500)	ND(100)	ND(100)	ND(100)	**375**	
	4/21/2009	97.65	5.08	ND	ND	92.57	**148**	**2,700**	**1,790**	6,230	10,868	**269**	ND(630)	ND(130)	ND(130)	44.0 J	**402**	
	7/31/2009	97.65	6.35	ND	ND	91.30	**101**	**1,460**	**730**	2,760	5,051	**151**	ND(250)	ND(50)	ND(50)	20.1 J	**235**	
	10/13/2009	97.65	4.80	ND	ND	92.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	97.65	5.25	ND	ND	92.40	**62.8**	873	**1,080**	2,830	4,846	**143**	ND(250)	ND(50)	ND(50)	17.2 J	**263**	
	1/12/2010	97.65	4.57	ND	ND	93.08	**162**	**2,430**	**1,350**	4,170	8,112	**139**	ND(250)	ND(50)	ND(50)	24.0 J	**355**	
	4/21/2010	97.65	4.21	ND	ND	93.44	**204**	**3,100**	**1,610**	5,510	10,424	**117**	ND(630)	ND(130)	ND(130)	ND(130)	**369**	
	7/22/2010	97.65	6.74	ND	ND	90.91	**197**	**2,900**	**1,340**	4,780	9,217	**108**	ND(630)	ND(130)	ND(130)	31.4 J	**225**	
	11/23/2010	97.65	6.55	ND	ND	91.10	**51.2**	**1,190**	**1,100**	3,530	5,871	**54.6**	ND(130)	ND(25)	ND(25)	9.0 J	**277**	
	3/2/2011	97.65	4.89	ND	ND	92.76	**60.2**	**1,220**	**1,120**	4,440	6,840	**33.8**	40.4	<1	<1	<1	**218**	
	5/19/2011	97.65	4.82	ND	ND	92.83	**101**	**1,340**	584	2,140	4,165	**28.2**	<20	<1	<1	7.47	**244**	
	7/12/2011	97.65	6.48	ND	ND	91.17	**117**	**2,450**	**1,140**	3,970	7,677	**24.4**	<20	<1	<1	<1	234	

Table 1
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Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L) [5]**	**Toluene (µg/L) [1000]**	**Ethyl-benzene (µg/L) [700]**	**Total Xylenes (µg/L) [10000]**	**Total BTEX (µg/L) --**	**MTBE (µg/L) [20]**	**TBA (µg/L) --**	**DIPE (µg/L) --**	**ETBE (µg/L) --**	**TAME (µg/L) --**	**Naph-thalene (µg/L) [0.65]**	**Comments**
MW-2A	6/1/2005	97.10	4.74	ND	ND	92.36	**1,740**	595	**2,590**	9,200	14,125	**829**	ND(500)	NA	NA	NA	NA	
	12/7/2005	97.10	5.65	ND	ND	91.45	**1,580**	**2,440**	**2,660**	9,530	16,210	**670**	ND(630)	NA	NA	NA	NA	
	5/24/2006	97.10	5.71	ND	ND	91.39	**1,570**	**4,950**	**2,790**	9,990	19,300	**599**	ND(630)	NA	NA	NA	NA	
	11/7/2006	97.10	4.35	ND	ND	92.75	**964**	**3,090**	**2,550**	8,730	15,334	**413**	189 J	NA	NA	NA	NA	
	6/21/2007	97.10	5.26	ND	ND	91.84	**456**	788	**2,290**	7,470	11,004	**198**	ND(250)	NA	NA	NA	NA	
	12/11/2007	97.10	5.77	ND	ND	91.33	**216**	157	569	1,830	2,772	**86.4**	30.0 J	NA	NA	NA	NA	
	3/24/2008	97.10	4.73	ND	ND	92.37	**747**	529	**1,900**	3,920	7,096	**568**	256 J	NA	NA	NA	NA	
	6/29/2008	97.10	5.66	ND	ND	91.44	**379**	**4,610**	**2,160**	8,620	15,769	**457**	ND(630)	ND(130)	ND(130)	ND(130)	**462**	
	8/14/2008	97.10	5.57	ND	ND	91.53	**489**	**4,240**	**3,310**	8,760	16,799	**531**	ND(630)	ND(130)	ND(130)	46.4 J	**652**	
	11/20/2008	97.10	5.64	5.63	0.01	91.47	**817**	308	**1,770**	5,450	8,345	**624**	ND(250)	ND(50)	ND(50)	55.6	**405**	
	2/11/2009	97.10	4.90	ND	ND	92.20	**567**	**1,220**	**1,330**	4,140	7,257	**680**	215 J	ND(50)	ND(50)	51.6	**306**	
	4/21/2009	97.10	1.82	ND	ND	95.28	**452**	**4,520**	**1,860**	7,870	14,702	**516**	ND(630)	ND(130)	ND(130)	64.0 J	**299**	
	7/31/2009	97.10	5.37	ND	ND	91.73	**191**	**1,830**	**1,270**	4,250	7,541	**341**	ND(250)	ND(50)	ND(50)	38.1 J	**316**	
	10/13/2009	97.10	3.93	ND	ND	93.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	97.10	4.51	ND	ND	92.59	**266**	656	**2,530**	7,620	11,072	**371**	ND(500)	ND(100)	ND(100)	48.5 J	**360**	
	1/12/2010	97.10	4.36	ND	ND	92.74	**699**	231	**2,340**	4,360	7,630	**532**	ND(500)	ND(100)	ND(100)	55.2 J	**402**	
	4/21/2010	97.10	4.04	ND	ND	93.06	**858**	**1,070**	**1,720**	2,690	6,338	**538**	156 J	ND(50)	ND(50)	43.4 J	**325**	
	7/22/2010	97.10	5.10	ND	ND	92.00	**544**	865	**1,590**	5,010	8,009	**430**	ND(250)	ND(50)	ND(50)	54.8	**262**	
	11/23/2010	97.10	5.51	ND	ND	91.59	**220**	367	**2,140**	3,980	5,807	**169**	ND(130)	ND(25)	ND(25)	20.2	**223**	
	3/2/2011	97.10	4.20	ND	ND	92.90	**147**	702	**1,290**	4,920	7,059	**151**	<20	<1	<1	18.4	**232**	
	5/19/2011	97.10	4.40	ND	ND	92.70	**373**	**1,530**	**1,300**	4,050	7,253	**274**	<20	1.07	<1	23.8	**222**	
	7/12/2011	97.10	5.45	ND	ND	91.65	**316**	850	**1,460**	4,690	7,316	**207**	<200	<10	<10	16.4	243	

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MW-3A	6/1/2005	96.99	2.71	ND	ND	94.28	**6.7**	18	31	108	163	19.8	ND(25)	NA	NA	NA	NA	
	12/7/2005	96.99	4.55	ND	ND	92.44	**92.0**	23.3	99.9	128	343	**353**	ND(25)	NA	NA	NA	NA	
	5/24/2006	96.99	2.72	ND	ND	94.27	ND(1.0)	1.1	5.7	19	26	**47.1**	ND(25)	NA	NA	NA	NA	
	11/7/2006	96.99	2.06	ND	ND	94.93	3.4	15.2	36.6	126	181	ND(1.0)	ND(25)	NA	NA	NA	NA	
	6/21/2007	96.99	2.45	ND	ND	94.54	**278**	111	325	991	1,705	**17900**	ND(1300)	NA	NA	NA	NA	
	12/11/2007	96.99	2.25	ND	ND	94.74	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	**23.2**	ND(25)	NA	NA	NA	NA	
	3/24/2008	96.99	2.41	ND	ND	94.58	0.32 J	7.5	14.8	57	79.2 J	0.64 J	ND(25)	NA	NA	NA	NA	
	6/29/2008	96.99	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Not accessible
	8/14/2008	96.99	5.57	ND	ND	91.42	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	3.7	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/20/2008	96.99	2.21	ND	ND	94.78	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	0.60 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	96.99	2.75	ND	ND	94.24	**28.0**	13.7	2.8	6	50	**67.2**	26.0	ND(5.0)	ND(5.0)	2.7 J	ND(5.0)	
	4/21/2009	96.99	1.30	ND	ND	95.69	**9.6**	7.6	1.8	4	23	**37.2**	21.2 J	ND(5.0)	ND(5.0)	1.2 J	ND(5.0)	
	7/31/2009	96.99	2.83	ND	ND	94.16	0.25 J	ND(1.0)	ND(1.0)	ND(1.0)	0.25 J	1.4	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/13/2009	96.99	2.10	ND	ND	94.89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	96.99	1.90	ND	ND	95.09	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	3.6	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	1/12/2010	96.99	2.45	ND	ND	94.54	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	**18.9**	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	96.99	2.26	ND	ND	94.73	**23.8**	14.2	5.2	9	52	**20.9**	7.5 J	ND(5.0)	ND(5.0)	0.98 J	ND(5.0)	
	7/22/2010	96.99	2.85	ND	ND	94.14	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	10.2	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/23/2010	96.99	4.75	ND	ND	92.24	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	3/2/2011	96.99	2.14	ND	ND	94.85	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	5/19/2011	96.99	2.53	ND	ND	94.46	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	7/12/2011	96.99	5.76	ND	ND	91.23	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
MW-4	6/1/2005	97.26	2.55	ND	ND	94.71	**6.9**	3.8	4.7	10.8	26.2	13.8	ND(25)	NA	NA	NA	NA	
	12/7/2005	97.26	2.77	ND	ND	94.49	2.9	0.81 J	7.6	5.7	17.0 J	5.3	ND(25)	NA	NA	NA	NA	
	5/24/2006	97.26	2.82	ND	ND	94.44	0.38 J	4.0	16.9	48.1	69.4 J	11.8	ND(25)	NA	NA	NA	NA	
	11/7/2006	97.26	2.48	ND	ND	94.78	2.1	2.4	9.3	31.8	45.6	**291**	ND(25)	NA	NA	NA	NA	
	6/21/2007	97.26	2.73	ND	ND	94.53	**22.9**	30.8	21.8	81.1	156.6	**934**	ND(100)	NA	NA	NA	NA	
	12/11/2007	97.26	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Monitoring well destroyed.

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L) [5]**	**Toluene (µg/L) [1000]**	**Ethyl-benzene (µg/L) [700]**	**Total Xylenes (µg/L) [10000]**	**Total BTEX (µg/L) --**	**MTBE (µg/L) [20]**	**TBA (µg/L) --**	**DIPE (µg/L) --**	**ETBE (µg/L) --**	**TAME (µg/L) --**	**Naph-thalene (µg/L) [0.65]**	**Comments**
MW-5A	6/1/2005	95.02	2.40	ND	ND	92.62	**132**	**1,360**	**1,670**	7,270	10,432	ND(10)	ND(250)	NA	NA	NA	NA	
	12/7/2005	95.02	3.25	ND	ND	91.77	**58.2**	230	**1130**	3,420	4,838	ND(10)	ND(250)	NA	NA	NA	NA	
	5/24/2006	95.02	3.72	ND	ND	91.30	**22.4**	144	661	1,840	2,667	ND(5.0)	ND(130)	NA	NA	NA	NA	
	11/7/2006	95.02	2.09	ND	ND	92.93	**136**	868	**1,370**	4,780	7,154	ND(5.0)	ND(130)	NA	NA	NA	NA	
	6/21/2007	95.02	5.35	ND	ND	89.67	**49.7**	460	**929**	2,750	4,189	ND(5.0)	ND(130)	NA	NA	NA	NA	
	12/11/2007	95.02	3.63	ND	ND	91.39	**20.1**	62.3	**831**	2,520	3,433	ND(10)	ND(250)	NA	NA	NA	NA	
	3/24/2008	95.02	2.60	ND	ND	92.42	**56.2**	306	**855**	1,940	3,157	ND(5)	ND(130)	NA	NA	NA	NA	
	6/29/2008	95.02	4.04	ND	ND	90.98	**38.5**	251	**920**	3,200	4,410	ND(10)	ND(250)	ND(50)	ND(50)	ND(50)	**246**	
	8/14/2008	95.02	4.32	ND	ND	90.70	**26.0**	139	**766**	2,910	3,841	ND(5.0)	ND(130)	ND(25)	ND(25)	ND(25)	**242**	
	11/20/2008	95.02	2.42	ND	ND	92.60	**111**	856	**1,180**	4,070	6,217	ND(20)	ND(500)	ND(100)	ND(100)	ND(100)	**362**	
	2/11/2009	95.02	2.48	ND	ND	92.54	**76.0**	900	**1,170**	4,510	6,656	ND(10)	ND(250)	ND(50)	ND(50)	ND(50)	**347**	
	4/21/2009	95.02	4.76	ND	ND	90.26	**29.9**	236	574	1,920	2,760	ND(5.0)	ND(130)	ND(25)	ND(25)	ND(25)	**176**	
	7/31/2009	95.02	2.87	ND	ND	92.15	**17.3**	108	488	1,570	2,183	ND(5.0)	ND(130)	ND(25)	ND(25)	ND(25)	**169**	
	10/13/2009	95.02	2.57	ND	ND	92.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	95.02	2.06	ND	ND	92.96	**41.3**	207	**876**	2,800	3,924	ND(10)	ND(250)	ND(50)	ND(50)	ND(50)	**251**	
	1/12/2010	95.02	1.10	ND	ND	93.92	**54.6**	609	**1,050**	3,800	5,514	ND(10)	ND(250)	ND(50)	ND(50)	ND(50)	**269**	
	4/21/2010	95.02	1.44	ND	ND	93.58	**89.3**	942	**1,230**	4,710	6,971	ND(5.0)	ND(130)	ND(25)	ND(25)	ND(25)	**295**	
	7/22/2010	95.02	3.87	ND	ND	91.15	**45.6**	306	**1,030**	3,600	4,982	ND(10)	ND(250)	ND(50)	ND(50)	ND(50)	**239**	
	11/23/2010	95.02	3.53	ND	ND	91.49	**86.0**	531	**1,210**	4,070	5,897	ND(10)	ND(250)	ND(50)	ND(50)	ND(50)	**294**	
	3/2/2011	95.02	2.41	ND	ND	92.61	**32.1**	168	**841**	2,250	3,291.1	<1	<20	<1	<1	<1	**227**	
	5/19/2011	95.02	2.59	ND	ND	92.43	**14.1**	162	555	1,730	2,461.1	<1	<20	<1	<1	<1	**148**	
	7/12/2011	95.02	3.92	ND	ND	91.10	**35.5**	323	**898**	2,530	3,786.5	<1	<20	<1	<1	<1	267	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L) [5]**	**Toluene (µg/L) [1000]**	**Ethyl-benzene (µg/L) [700]**	**Total Xylenes (µg/L) [10000]**	**Total BTEX (µg/L) --**	**MTBE (µg/L) [20]**	**TBA (µg/L) --**	**DIPE (µg/L) --**	**ETBE (µg/L) --**	**TAME (µg/L) --**	**Naph-thalene (µg/L) [0.65]**	**Comments**
MW-8	12/7/2005	97.04	2.56	ND	ND	94.48	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	NA	NA	NA	NA	
	5/24/2006	97.04	2.61	ND	ND	94.43	ND(1.0)	2.0	10.3	34	46	**24.3**	ND(25)	NA	NA	NA	NA	
	11/7/2006	97.04	2.27	ND	ND	94.77	ND(1.0)	4.1	13.9	49	67	ND(1.0)	ND(25)	NA	NA	NA	NA	
	6/21/2007	97.04	2.53	ND	ND	94.51	**104**	27.7	130	644	906	**8870**	ND(500)	NA	NA	NA	NA	
	12/11/2007	97.04	2.28	ND	ND	94.76	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	NA	NA	NA	NA	
	3/24/2008	97.04	2.46	ND	ND	94.58	ND(1)	0.3 J	0.7 J	2	2.9 J	18.9	ND(25)	NA	NA	NA	NA	
	6/29/2008	97.04	2.92	ND	ND	94.12	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	13.5	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	8/14/2008	97.04	3.02	ND	ND	94.02	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	1.6	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/20/2008	97.04	2.30	ND	ND	94.74	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	97.04	2.67	ND	ND	94.37	0.34 J	ND(1.0)	ND(1.0)	ND(1.0)	0.34 J	**86.2**	13.8 J	ND(5.0)	ND(5.0)	0.84 J	ND(5.0)	
	4/21/2009	97.04	1.90	ND	ND	95.14	0.58 J	ND(1.0)	ND(1.0)	ND(1.0)	0.58 J	**52.3**	86.4	ND(5.0)	ND(5.0)	0.95 J	ND(5.0)	
	7/31/2009	97.04	2.55	ND	ND	94.49	0.91 J	9.2	3.3	10	23.0 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/13/2009	97.04	3.00	ND	ND	94.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	97.04	4.65	ND	ND	92.39	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	1/12/2010	97.04	2.59	ND	ND	94.45	2.2	ND(1.0)	1.3	0.95 J	4.5 J	**71.8**	ND(25)	ND(5.0)	ND(5.0)	3.8 J	ND(5.0)	
	4/21/2010	97.04	2.46	ND	ND	94.58	0.28 J	ND(1.0)	ND(1.0)	ND(1.0)	0.28 J	18.5	20.5 J	ND(5.0)	ND(5.0)	0.71 J	ND(5.0)	
	7/22/2010	97.04	2.65	ND	ND	94.39	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	0.62 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/23/2010	97.04	2.90	ND	ND	94.14	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	3/2/2011	97.04	2.01	ND	ND	95.03	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	5/19/2011	97.04	2.53	ND	ND	94.51	<1	<1	<1	<3	BRL	2.76	<20	<1	<1	<1	<5	
	7/12/2011	97.04	4.65	ND	ND	92.39	<1	11.5	15	56.3	82.8	<1	<20	<1	<1	<1	<5	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
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		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L) [5]**	**Toluene (µg/L) [1000]**	**Ethyl-benzene (µg/L) [700]**	**Total Xylenes (µg/L) [10000]**	**Total BTEX (µg/L) --**	**MTBE (µg/L) [20]**	**TBA (µg/L) --**	**DIPE (µg/L) --**	**ETBE (µg/L) --**	**TAME (µg/L) --**	**Naph-thalene (µg/L) [0.65]**	**Comments**
MW-10	6/1/2005	93.35	3.82	ND	ND	89.53	**9**	1	4	7	21	9.3	ND(25)	NA	NA	NA	NA	
	12/7/2005	93.35	4.51	ND	ND	88.84	**24.7**	0.38 J	26.8	8	59.4 J	19.6	ND(25)	NA	NA	NA	NA	
	5/24/2006	93.35	4.67	ND	ND	88.68	**13.3**	0.52 J	5.8	4	23.6 J	**45.7**	25.3	NA	NA	NA	NA	
	11/7/2006	93.35	4.04	ND	ND	89.31	**11.2**	38.1	83.9	266	399	**164**	127	NA	NA	NA	NA	
	6/21/2007	93.35	4.54	ND	ND	88.81	**18.9**	7.4	20.1	46	93	**42.5**	ND(25)	NA	NA	NA	NA	
	12/11/2007	93.35	3.73	ND	ND	89.62	0.85 J	2.6	10.1	28	41.1 J	**22.5**	ND(25)	NA	NA	NA	NA	
	3/24/2008	93.35	4.10	ND	ND	89.25	0.39 J	3.4	7.9	21	32.3 J	6.7	ND(25)	NA	NA	NA	NA	
	6/29/2008	93.35	4.40	ND	ND	88.95	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	8/14/2008	93.35	4.75	ND	ND	88.60	ND(1.0)	ND(1.0)	ND(1.0)	0.45 J	0.45 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/20/2008	93.35	4.56	ND	ND	88.79	3.6	ND(1.0)	2.0	ND(1.0)	6	11.6	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	93.35	4.27	ND	ND	89.08	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	3.0	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2009	93.35	2.72	ND	ND	90.63	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	1.4	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/31/2009	93.35	4.31	ND	ND	89.04	ND(1.0)	0.65 J	0.30 J	0.69 J	1.64 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/13/2009	93.35	3.87	ND	ND	89.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	93.35	3.33	ND	ND	90.02	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	0.40 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	1/12/2010	93.35	3.41	ND	ND	89.94	0.30 J	ND(1.0)	ND(1.0)	ND(1.0)	0.30 J	2.7	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	93.35	2.94	ND	ND	90.41	ND(1.0)	0.40 J	1.2	4	5.8 J	0.57 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/22/2010	93.35	4.41	ND	ND	88.94	ND(1.0)	0.58 J	0.61 J	2	3.2 J	1.6	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/23/2010	93.35	4.71	ND	ND	88.64	5	0.82 J	13.5	5	24.2 J	**40.3**	30.4	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	3/2/2011	93.35	3.96	ND	ND	89.39	<1	<1	<1	<3	BRL	1.37	<20	<1	<1	<1	<5	
	5/19/2011	93.35	3.55	ND	ND	89.80	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	7/12/2011	93.35	4.40	ND	ND	88.95	<1	<1	<1	<3	BRL	15.4	<20	<1	<1	<1	<5	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L)** [5]	**Toluene (µg/L)** [1000]	**Ethyl-benzene (µg/L)** [700]	**Total Xylenes (µg/L)** [10000]	**Total BTEX (µg/L)** --	**MTBE (µg/L)** [20]	**TBA (µg/L)** --	**DIPE (µg/L)** --	**ETBE (µg/L)** --	**TAME (µg/L)** --	**Naph-thalene (µg/L)** [0.65]	**Comments**
MW-11	6/1/2005	96.64	7.84	ND	ND	88.80	**461**	**1,410**	**1,690**	5,380	8,941	**748**	185	NA	NA	NA	NA	
	12/7/2005	96.64	8.48	ND	ND	88.16	**504**	488	**839**	2,500	4,331	**614**	ND(130)	NA	NA	NA	NA	
	5/24/2006	96.64	8.52	ND	ND	88.12	**270**	317	**729**	1,920	3,236	**422**	ND(130)	NA	NA	NA	NA	
	11/7/2006	96.64	6.10	ND	ND	90.54	**148**	117	463	921	1,649	**206**	55.8	NA	NA	NA	NA	
	6/21/2007	96.64	8.16	ND	ND	88.48	**102**	64.0	341	423	930	**185**	ND(25)	NA	NA	NA	NA	
	12/11/2007	96.64	9.15	ND	ND	87.49	**275**	307	**833**	2,060	3,475	**328**	ND(250)	NA	NA	NA	NA	
	3/24/2008	96.64	6.07	ND	ND	90.57	**135**	117	443	1,160	1,855	**289**	69.3 J	NA	NA	NA	NA	
	6/29/2008	96.64	7.96	ND	ND	88.68	**14.0**	12.4	12.7	159	198	**65.4**	ND(25)	ND(5.0)	ND(5.0)	4.2 J	**19.0**	
	8/14/2008	96.64	7.78	ND	ND	88.86	3.0	0.42 J	0.96 J	6	10.5 J	**36.7**	ND(25)	ND(5.0)	ND(5.0)	0.92 J	**2.1 J**	
	11/20/2008	96.64	9.18	ND	ND	87.46	**131**	89.5	**738**	1,570	2,529	**214**	ND(130)	ND(25)	ND(25)	ND(25)	**212**	
	2/11/2009	96.64	6.87	ND	ND	89.77	**65.8**	63.1	333	781	1,243	**149**	34.8	ND(5.0)	ND(5.0)	10.7	**87.3**	
	4/21/2009	96.64	5.68	ND	ND	90.96	**60.6**	48.9	360	758	1,228	**142**	34.5 J	ND(13)	ND(13)	10.9 J	**84.9**	
	7/31/2009	96.64	8.45	ND	ND	88.19	**60.4**	47.0	521	523	1,151	**169**	ND(50)	ND(10)	ND(10)	11.9	**118**	
	10/13/2009	96.64	6.73	ND	ND	89.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	96.64	6.23	ND	ND	90.41	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	16.1	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	1/12/2010	96.64	5.22	ND	ND	91.42	**8.9**	4.5	70.9	95	180	19.2	ND(25)	ND(5.0)	ND(5.0)	1.4 J	**16.0**	
	4/21/2010	96.64	4.93	ND	ND	91.71	**29.6**	11.3	198	241	480	**76.1**	16.2 J	ND(5.0)	ND(5.0)	4.5 J	**51.8**	
	7/22/2010	96.64	9.31	ND	ND	87.33	**78.7**	64.2	**884**	1,210	2,237	**206**	ND(63)	ND(13)	ND(13)	17.4	**213**	
	11/23/2010	96.64	8.85	ND	ND	87.79	**103**	65.4	422	566	1,156	**176**	30.8	ND(5.0)	ND(5.0)	11.8	**143**	
	3/2/2011	96.64	5.96	ND	ND	90.68	**4.64**	4	47	66	121	12.8	<20	<1	<1	<1	**9.29**	
	5/19/2011	96.64	5.99	ND	ND	90.65	**16.4**	12	126	203	357	**41.7**	<20	<1	<1	<1	**35.2**	
	7/12/2011	96.64	8.58	ND	ND	88.06	**51.6**	37.8	432	487	1,008.4	**120**	<20	<1	<1	8.06	87.5	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L)** [5]	**Toluene (µg/L)** [1000]	**Ethyl-benzene (µg/L)** [700]	**Total Xylenes (µg/L)** [10000]	**Total BTEX (µg/L)** --	**MTBE (µg/L)** [20]	**TBA (µg/L)** --	**DIPE (µg/L)** --	**ETBE (µg/L)** --	**TAME (µg/L)** --	**Naph-thalene (µg/L)** [0.65]	**Comments**
MW-12	6/1/2005	100.00	10.50	ND	ND	89.50	3.6	ND(2)	ND(2)	ND(2)	3.6	**283**	ND(50)	NA	NA	NA	NA	
	12/7/2005	100.00	12.65	ND	ND	87.35	0.45 J	ND(1.0)	0.72 J	1.3	2.5 J	**135**	ND(25)	NA	NA	NA	NA	
	5/24/2006	100.00	13.16	ND	ND	86.84	4.0	25.1	31.7	101	162	**198**	ND(50)	NA	NA	NA	NA	
	11/7/2006	100.00	8.19	ND	ND	91.81	1.2	7.6	26.9	75.0	110.7	**161**	ND(25)	NA	NA	NA	NA	
	6/21/2007	100.00	12.97	ND	ND	87.03	1.8	7.3	15.4	48.6	73.1	**224**	ND(25)	NA	NA	NA	NA	
	12/11/2007	100.00	15.78	ND	ND	84.22	ND(1.0)	0.92 J	16.6	56.3	73.8 J	**25.7**	ND(25)	NA	NA	NA	NA	
	3/24/2008	100.00	7.98	ND	ND	92.02	0.84 J	0.38 J	1.3	4.1	6.6 J	**144**	11.2 J	NA	NA	NA	NA	
	6/29/2008	100.00	12.35	ND	ND	87.65	0.85 J	ND(1.0)	ND(1.0)	ND(1.0)	0.85 J	**153**	9.8 J	ND(5.0)	ND(5.0)	27.4	**1.4 J**	
	8/14/2008	100.00	13.85	ND	ND	86.15	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	**126**	ND(25)	ND(5.0)	ND(5.0)	21.6	ND(5.0)	
	11/20/2008	100.00	14.53	ND	ND	85.47	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	**56.0**	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	100.00	9.07	ND	ND	90.93	0.31 J	ND(1.0)	0.31 J	0.81 J	1.43 J	**114**	ND(25)	ND(5.0)	ND(5.0)	14.3	**1.4 J**	
	4/21/2009	100.00	8.62	ND	ND	91.38	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	**96.7**	13.2 J	ND(5.0)	ND(5.0)	16.6	ND(5.0)	
	7/31/2009	100.00	13.86	ND	ND	86.14	ND(1.0)	1.5	0.61 J	1.6	3.7 J	**96.7**	ND(25)	ND(5.0)	ND(5.0)	18.0	ND(5.0)	
	10/13/2009	100.00	10.90	ND	ND	89.10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	100.00	8.54	ND	ND	91.46	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	**38.8**	ND(25)	ND(5.0)	ND(5.0)	4.9 J	ND(5.0)	
	1/12/2010	100.00	7.36	ND	ND	92.64	0.32 J	ND(1.0)	ND(1.0)	ND(1.0)	0.32 J	**90.4**	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	100.00	7.39	ND	ND	92.61	1.4	ND(1.0)	0.86 J	0.64 J	2.9 J	**80.9**	9.5 J	ND(5.0)	ND(5.0)	13.2	**2.6 J**	
	7/22/2010	100.00	15.90	ND	ND	84.10	ND(1.0)	1.1	1.3	5.0	7.4	**53.0**	ND(25)	ND(5.0)	ND(5.0)	13.1	ND(5.0)	
	11/23/2010	100.00	14.50	ND	ND	85.50	ND(1.0)	ND(1.0)	0.42 J	1.4	1.8 J	19.1	ND(25)	ND(5.0)	ND(5.0)	3.2 J	ND(5.0)	
	3/2/2011	100.00	7.72	ND	ND	92.28	<1 [<1]	<1 [<1]	<1 [<1]	<3 [<3]	BRL	**36.8 [35.5]**	<20 [<20]	<1 [<1]	<1 [<1]	6.32 [5.99]	<5 [<5]	
	5/19/2011	100.00	8.63	ND	ND	91.37	<1 [<1]	<1 [<1]	1.15 [1.02]	<3 [<3]	BRL	**60.9 [54.1]**	<20 [<20]	<1 [<1]	<1 [<1]	<1 [10.6]	**5.01 [<5]**	
	7/12/2011	100.00	14.09	ND	ND	85.91	<1	<1	<1	<3	BRL	**37**	<20	<1	<1	6.78	<5	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L) [5]**	**Toluene (µg/L) [1000]**	**Ethyl-benzene (µg/L) [700]**	**Total Xylenes (µg/L) [10000]**	**Total BTEX (µg/L) --**	**MTBE (µg/L) [20]**	**TBA (µg/L) --**	**DIPE (µg/L) --**	**ETBE (µg/L) --**	**TAME (µg/L) --**	**Naph-thalene (µg/L) [0.65]**	**Comments**
MW-13	6/1/2005	94.38	9.60	ND	ND	84.78	0.99 J	11.7	62.3	225	300 J	2.2	ND(25)	NA	NA	NA	NA	
	12/7/2005	94.38	10.93	ND	ND	83.45	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	NA	NA	NA	NA	
	5/24/2006	94.38	12.06	ND	ND	82.32	1.4	16.3	25.5	83.9	127.1	ND(1.0)	ND(25)	NA	NA	NA	NA	
	11/7/2006	94.38	7.87	ND	ND	86.51	ND(1.0)	1.5	7.3	21.2	30.0	ND(1.0)	ND(25)	NA	NA	NA	NA	
	6/21/2007	94.38	11.29	ND	ND	83.09	ND(1.0)	7.0	15.4	48.0	70.4	ND(1.0)	ND(25)	NA	NA	NA	NA	
	12/11/2007	94.38	11.61	ND	ND	82.77	ND(1.0)	0.76 J	10.5	31.0	42.3 J	ND(1.0)	ND(25)	NA	NA	NA	NA	
	3/24/2008	94.38	7.58	ND	ND	86.80	ND(1)	1.8	21.8	63.7	87.3	2.1	ND(25)	NA	NA	NA	NA	
	6/29/2008	94.38	11.11	ND	ND	83.27	ND(1.0)	ND(1.0)	ND(1.0)	0.91 J	0.91 J	0.46 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	8/14/2008	94.38	12.62	ND	ND	81.76	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/20/2008	94.38	11.97	ND	ND	82.41	ND(1.0)	ND(1.0)	0.56 J	1.3	1.9 J	0.64 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	94.38	9.52	ND	ND	84.86	ND(1.0)	2.0	25.3	73.5	100.8	3.5	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	**11.8**	
	4/21/2009	94.38	3.75	ND	ND	90.63	ND(1.0)	0.45 J	8.0	18.3	26.8 J	1.7	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	**3.2 J**	
	7/31/2009	94.38	12.49	ND	ND	81.89	1.2	1.3	2.1	9.3	13.9	5.5	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	**5.3**	
	10/13/2009	94.38	10.00	ND	ND	84.38	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/27/2009	94.38	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/12/2010	94.38	6.36	ND	ND	88.02	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	94.38	6.55	ND	ND	87.83	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	1.5	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/22/2010	94.38	14.77	ND	ND	79.61	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/23/2010	94.38	14.40	ND	ND	79.98	ND(1.0)	ND(1.0)	0.44 J	1.1	1.5 J	0.46 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	3/2/2011	94.38	4.58	ND	ND	89.80	<1	<1	5.25	11.8	17	<1	<20	<1	<1	<1	<5	
	5/19/2011	94.38	8.85	ND	ND	85.53	<1	<1	13.9	46.5	60	3.27	<20	<1	<1	<1	**7.24**	
	7/12/2011	94.38	12.63	ND	ND	81.75	<1	<1	14	43	57	5.76	<20	<1	<1	<1	17.1	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L)** [5]	**Toluene (µg/L)** [1000]	**Ethyl-benzene (µg/L)** [700]	**Total Xylenes (µg/L)** [10000]	**Total BTEX (µg/L)** --	**MTBE (µg/L)** [20]	**TBA (µg/L)** --	**DIPE (µg/L)** --	**ETBE (µg/L)** --	**TAME (µg/L)** --	**Naph-thalene (µg/L)** [0.65]	**Comments**
MW-14	6/1/2005	93.10	11.90	ND	ND	81.20	**456**	51.1	50.8	144	702	**102**	ND(50)	NA	NA	NA	NA	
	12/7/2005	93.10	11.58	ND	ND	81.52	ND(1.0)	5.3	ND(1.0)	ND(1.0)	5.3	ND(1.0)	ND(25)	NA	NA	NA	NA	
	5/24/2006	93.10	12.88	ND	ND	80.22	**66.7**	14.8	23.5	86.1	191.1	**25.9**	23.2 J	NA	NA	NA	NA	
	11/7/2006	93.10	8.87	ND	ND	84.23	**62.9**	3.1	8.8	35.9	110.7	**28.5**	24.4 J	NA	NA	NA	NA	
	6/21/2007	93.10	12.69	ND	ND	80.41	**580**	75.8	87.3	225	968	**142**	141	NA	NA	NA	NA	
	12/11/2007	93.10	10.25	ND	ND	82.85	ND(1.0)	0.31 J	2.9	9.5	12.7 J	ND(1.0)	ND(25)	NA	NA	NA	NA	
	3/24/2008	93.10	8.40	ND	ND	84.70	4.7	0.41 J	0.47 J	1	7 J	5.3	ND(25)	NA	NA	NA	NA	
	6/29/2008	93.10	12.50	ND	ND	80.60	**27.0**	2.8	1.7	19.8	51.3	**32.5**	11.3 J	ND(5.0)	ND(5.0)	ND(5.0)	**2.9 J**	
	8/14/2008	93.10	14.52	ND	ND	78.58	**104**	0.33 J	1.3	11.5	117 J	**61.7**	42.2	0.80 J	ND(5.0)	ND(5.0)	**15.9**	
	11/20/2008	93.10	12.32	ND	ND	80.78	0.72 J	ND(1.0)	ND(1.0)	ND(1.0)	0.72 J	2.4	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	93.10	10.33	ND	ND	82.77	**19.8**	1.1	1.2	2.7	24.8	18.2	11.3 J	ND(5.0)	ND(5.0)	ND(5.0)	**1.5 J**	
	4/21/2009	93.10	7.85	ND	ND	85.25	2.0	ND(1.0)	ND(1.0)	ND(1.0)	2.0	3.6	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/31/2009	93.10	13.09	ND	ND	80.01	**109**	4.9	1.7	33.1	149	**69.6**	44.2	1.1 J	ND(5.0)	ND(5.0)	**11.2**	
	10/13/2009	93.10	11.37	ND	ND	81.73	**41.7**	4.4	ND(1.0)	7.3	53.4	**23.7**	17.1 J	0.38 J	ND(5.0)	ND(5.0)	**6.0**	
	10/27/2009	93.10	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/12/2010	93.10	8.54	ND	ND	84.56	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	7.1	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	93.10	5.98	ND	ND	87.12	**45**	10.1	9.0	38.0	102.1	**39.6**	21.4 J	0.57 J	ND(5.0)	ND(5.0)	**10.4**	
	7/22/2010	93.10	15.94	ND	ND	77.16	**118**	0.61 J	0.90 J	20.4	140 J	**109**	100	1.9 J	ND(5.0)	ND(5.0)	**28.8**	
	11/23/2010	93.10	17.50	ND	ND	75.60	ND(1.0)	0.50 J	0.54 J	0.27 J	1.31 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	**1.6 J**	
	3/2/2011	93.10	7.59	ND	ND	85.51	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	5/19/2011	93.10	9.91	ND	ND	83.19	**28.1**	17.9	22.4	62.7	131	**49.4**	<20	<1	<1	<1	**8.02**	
	7/12/2011	93.10	13.98	ND	ND	79.12	**161 [151]**	<1 [<1]	11.5 [9.9]	61.9 [52.7]	234.4 [213.6]	**79.1 [78.4]**	31.7 [31.1]	<1 [<1]	<1 [<1]	1.29 [1.27]	42.2 [35.7]	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L)** [5]	**Toluene (µg/L)** [1000]	**Ethyl-benzene (µg/L)** [700]	**Total Xylenes (µg/L)** [10000]	**Total BTEX (µg/L)** --	**MTBE (µg/L)** [20]	**TBA (µg/L)** --	**DIPE (µg/L)** --	**ETBE (µg/L)** --	**TAME (µg/L)** --	**Naph-thalene (µg/L)** [0.65]	**Comments**
MW-15	6/1/2005	92.40	8.31	ND	ND	84.09	1.6	ND(1.0)	0.87 J	2.3	4.8 J	ND(1.0)	ND(25)	NA	NA	NA	NA	
	12/7/2005	92.40	6.02	ND	ND	86.38	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	NA	NA	NA	NA	
	5/24/2006	92.40	8.51	ND	ND	83.89	0.68 J	8.5	15.8	51.7	76.7 J	ND(1.0)	ND(25)	NA	NA	NA	NA	
	11/7/2006	92.40	5.32	ND	ND	87.08	ND(1.0)	2.7	10.7	31.9	45.3	ND(1.0)	ND(25)	NA	NA	NA	NA	
	6/21/2007	92.40	11.29	ND	ND	81.11	1.8	5.0	11.6	35.5	53.9	ND(1.0)	ND(25)	NA	NA	NA	NA	
	12/11/2007	92.40	7.31	ND	ND	85.09	ND(1.0)	ND(1.0)	1.6	5.3	6.9	ND(1.0)	ND(25)	NA	NA	NA	NA	
	3/24/2008	92.40	5.22	ND	ND	87.18	0.78 J	ND(1)	ND(1)	ND(1)	0.78 J	ND(1)	ND(25)	NA	NA	NA	NA	
	6/29/2008	92.40	7.79	ND	ND	84.61	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	8/14/2008	92.40	9.00	ND	ND	83.40	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/20/2008	92.40	4.84	ND	ND	87.56	1.2	ND(1.0)	ND(1.0)	ND(1.0)	1.2	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	92.40	6.66	ND	ND	85.74	2.3	ND(1.0)	0.63 J	0.65 J	3.6 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	**2.0 J**	
	4/21/2009	92.40	1.90	ND	ND	90.50	0.60 J	ND(1.0)	ND(1.0)	ND(1.0)	0.60 J	1.1	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/31/2009	92.40	8.55	ND	ND	83.85	0.55 J	4.7	1.5	4.6	11.4 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/13/2009	92.40	7.90	ND	ND	84.50	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/27/2009	92.40	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/12/2010	92.40	5.21	ND	ND	87.19	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	92.40	5.88	ND	ND	86.52	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/22/2010	92.40	10.31	ND	ND	82.09	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/23/2010	92.40	11.14	ND	ND	81.26	1.7	ND(1.0)	0.34 J	0.27 J	2.3 J	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	3/2/2011	92.40	3.94	ND	ND	88.46	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	5/19/2011	92.40	6.56	ND	ND	85.84	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	7/12/2011	92.40	8.88	ND	ND	83.52	1.4	<1	<1	<3	1.4	<1	<20	<1	<1	<1	<5	

Table 1
Groundwater Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

		Gauging Data					Analytical Data											
Well ID	**Date**	**Top of Casing Elevation (feet)**	**Depth to Water (feet)**	**Depth to Hydro-carbon (feet)**	**Hydro-carbon Thickness (feet)**	**Corrected GW Elevation (feet)**	**Benzene (µg/L) [5]**	**Toluene (µg/L) [1000]**	**Ethyl-benzene (µg/L) [700]**	**Total Xylenes (µg/L) [10000]**	**Total BTEX (µg/L) --**	**MTBE (µg/L) [20]**	**TBA (µg/L) --**	**DIPE (µg/L) --**	**ETBE (µg/L) --**	**TAME (µg/L) --**	**Naph-thalene (µg/L) [0.65]**	**Comments**
MW-16	6/1/2005	90.30	7.42	ND	ND	82.88	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	NA	NA	NA	NA	
	12/7/2005	90.30	6.12	ND	ND	84.18	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	NA	NA	NA	NA	
	5/24/2006	90.30	7.50	ND	ND	82.80	ND(1.0)	2.0	6.0	31.6	39.6	ND(1.0)	ND(25)	NA	NA	NA	NA	
	11/7/2006	90.30	5.16	ND	ND	85.14	0.51 J	4.7	17.8	51.1	74.1 J	ND(1.0)	ND(25)	NA	NA	NA	NA	
	6/21/2007	90.30	8.50	ND	ND	81.80	ND(1.0)	9.8	19.8	61.8	91.4	ND(1.0)	ND(25)	NA	NA	NA	NA	
	12/11/2007	90.30	5.84	ND	ND	84.46	ND(1.0)	ND(1.0)	1.0	3.3	4.3	ND(1.0)	ND(25)	NA	NA	NA	NA	
	3/24/2008	90.30	5.13	ND	ND	85.17	ND(1)	ND(1)	ND(1)	ND(1)	BRL	ND(1)	ND(25)	NA	NA	NA	NA	
	6/29/2008	90.30	7.19	ND	ND	83.11	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	8/14/2008	90.30	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	Well not located, not
	11/20/2008	90.30	9.43	ND	ND	80.87	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	2/11/2009	90.30	6.05	ND	ND	84.25	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2009	90.30	4.15	ND	ND	86.15	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	0.54 J	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/31/2009	90.30	6.50	ND	ND	83.80	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	10/13/2009	90.30	5.15	ND	ND	85.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/27/2009	90.30	3.95	ND	ND	86.35	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	1/12/2010	90.30	5.16	ND	ND	85.14	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	4/21/2010	90.30	4.96	ND	ND	85.34	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	7/22/2010	90.30	8.49	ND	ND	81.81	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	11/23/2010	90.30	7.49	ND	ND	82.81	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	BRL	ND(1.0)	ND(25)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	
	3/2/2011	90.30	4.89	ND	ND	85.41	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	5/19/2011	90.30	5.36	ND	ND	84.94	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	
	7/12/2011	90.30	8.84	ND	ND	81.46	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	

Notes:

µg/L - micrograms/liter
BRL - Below laboratory reporting limits
BTEX - Benzene, toluene, ethylbenzene, and total xylenes
DIPE - Di-Isopropyl Ether
ETBE - Ethyl Tertiary Butyl Ether
GW - Groundwater
J - Indicates an estimated value
MTBE - Methyl Tert Butyl Ether
NA - Not analyzed
ND - Not detected
ND(5.0) - Not detected at or above the laboratory reporting limit, laboratory reporting limit included.
NM - Not monitored
NS - Not sampled
NSVD - Not surveyed to vertical datum
TAME - Tertiary Amyl Methyl Ether
TBA - Tertiary Butyl Alcohol

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
215 Bayview	4/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.19 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
223 Bayview	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.19	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.29 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.32 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.18 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
223 Bayview	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
237 Bayview	6/23/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	0.11 J	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.50)	BRL	0.11 J	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
243 Bayview	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.18 J	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.18 J	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.070 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
246 Bayview	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.1	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.16 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.13 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
256 Bayview	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	1.00	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.8	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.67	ND(5.0)	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.76	ND(5.0)	NA	NA	NA	ND(0.50)	
259 Bayview	3/30/2005	0.1	0.081	ND(0.50)	ND(0.50)	0.2	15.5	41	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	21.1	68.1	NA	NA	NA	NA	
	8/29/2005	0.18 J	0.30 J	ND(0.50)	0.15 J	0.63 J	16.8	52.8	NA	NA	NA	ND(0.50)	
	9/26/2005	0.083	ND(0.50)	ND(0.50)	0.213	0.296	16.4	44.3	NA	NA	NA	NA	
	10/25/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	19.3	38.6	NA	NA	NA	NA	
	11/14/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	5.9	16.7	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	19.8	50.0	NA	NA	NA	NA	
	1/20/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	13.3	44.3	NA	NA	NA	ND(0.50)	
	3/3/2006	0.096 J	ND(0.50)	ND(0.50)	ND(0.50)	0.096 J	16.9	53.6	NA	NA	NA	ND(0.50)	
	4/3/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	17.6	65.3	NA	NA	NA	ND(0.50)	
	5/15/2006	0.087 J	ND(0.50)	ND(0.50)	ND(0.50)	0.087 J	20.0	58.9	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	18.4	64.5	NA	NA	NA	ND(0.50)	
	7/27/2006	0.083 J	ND(0.50)	ND(0.50)	ND(0.50)	0.083 J	22.1	73.7	NA	NA	NA	ND(0.50)	
	8/29/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	23.7	98.6	NA	NA	NA	ND(0.50)	
	9/26/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	25.7	73.8	ND(0.50)	ND(0.50)	1.7	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	30.2	93.0	ND(0.50)	ND(0.50)	1.5	ND(0.50)	
	11/30/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	30.9	103	NA	NA	NA	ND(0.50)	
	12/19/2006	0.084 J	ND(0.50)	ND(0.50)	ND(0.50)	0.084 J	32.5	121	ND(0.50)	ND(0.50)	2.0	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	33.2	128	NA	NA	NA	ND(0.50)	
	2/28/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	38.6	133	NA	NA	NA	ND(0.50)	
	3/15/2007	0.096 J	ND(0.50)	ND(0.50)	ND(0.50)	0.096 J	33.1	140	0.14 J	ND(0.50)	1.6	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
259 Bayview EFF	3/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/17/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/22/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	9/19/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	4.7 J	NA	NA	NA	ND(0.50)	
	11/29/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	22.4	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.22 J	4.8 J	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.18 J	100	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.15 J	111	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/20/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	7/31/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	10.4	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	10/13/2009	ND(0.50)	0.25 J	ND(0.50)	ND(0.50)	0.25 J	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	1/13/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	7/22/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/23/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	16.1	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/1/2011	<0.5	<0.5	<0.5	<1	BRL	<0.5	<10	<0.5	<0.5	<0.5	<5	
	5/19/2011	<0.5	<0.5	<0.5	<1	BRL	<0.5	<10	<0.5	<0.5	<0.5	<5	
	7/12/2011	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	

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Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
259 Bayview INF	3/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	32.2	136	NA	NA	NA	ND(0.50)	
	4/17/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	29.9	104	NA	NA	NA	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	38.0	145	NA	NA	NA	ND(0.50)	
	6/22/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	36.8	133	NA	NA	NA	ND(0.50)	
	9/19/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	39.9	158	NA	NA	NA	ND(0.50)	
	10/23/2007	0.081 J	ND(0.50)	ND(0.50)	ND(0.50)	0.081 J	39.3	142	NA	NA	NA	ND(0.50)	
	11/29/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	37.6	189	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	35.0	148	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	37.9	105	0.093 J	ND(0.50)	1.4	ND(0.50)	
	9/23/2008	0.087 J	ND(0.50)	ND(0.50)	ND(0.50)	0.087 J	47.3	149	0.082 J	ND(0.50)	1.2	ND(0.50)	
	11/20/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	38.2	131	0.11 J	ND(0.50)	1.6	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	35.8	102	ND(0.50)	ND(0.50)	1.3	ND(0.50)	
	4/21/2009	0.079 J	ND(0.50)	ND(0.50)	ND(0.50)	0.079 J	44.6	121	0.095 J	ND(0.50)	1.5	ND(0.50)	
	7/31/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	34.5	134	0.075 J	ND(0.50)	1.2	ND(0.50)	
	10/13/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	35.6	118	0.11 J	ND(0.50)	1.3	ND(0.50)	
	1/13/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	50.9	173	ND(0.50)	ND(0.50)	1.6	ND(0.50)	
	4/21/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	40.6	105	0.19 J	ND(0.50)	1.5	ND(0.50)	
	7/22/2010	0.083 J	ND(0.50)	ND(0.50)	ND(0.50)	0.083 J	40.3	123	0.19 J	ND(0.50)	1.4	ND(0.50)	
	11/23/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	39.6	91	0.12 J	ND(0.50)	1.2	ND(0.50)	
	3/1/2011	<0.5	<0.5	<0.5	<1	BRL	43.6	59.9	1.58	<0.5	<0.5	<5	
	5/19/2011	<0.5	<0.5	<0.5	<1	BRL	44.8	86.2	<0.5	<0.5	1.63	<5	
	7/12/2011	<1	<1	<1	<3	BRL	43.2	114	<1	<1	1.85	<5	

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Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
259 Bayview MID	3/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/17/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/22/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	9/19/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	56.3	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	85.5	NA	NA	NA	ND(0.50)	
	11/29/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	156	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.089 J	3.7 J	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	10.0	81.4	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.49 J	119	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/20/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	4.3 J	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	7/31/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	93.3	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	10/13/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	1/13/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	58.3	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	20.5	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	7/22/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/23/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	101	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/1/2011	<0.5	<0.5	<0.5	<1	BRL	<0.5	<10	<0.5	<0.5	<0.5	<5	
	5/19/2011	<0.5	<0.5	<0.5	<1	BRL	<0.5	<10	<0.5	<0.5	<0.5	<5	
	7/12/2011	<1	<1	<1	<3	BRL	<1	<20	<1	<1	<1	<5	

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Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
261 Bayview	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	1.1	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	1.2	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	1.7	2.6	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	1.6	2.8 J	NA	NA	NA	ND(0.50)	
	1/30/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	2.6	6.4	NA	NA	NA	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	4.6	16.3	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/9/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	5.0	18.5	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	4.0	12.4	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	5.1	16.0	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	7/31/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	5.9	17.1	ND(0.50)	ND(0.50)	0.34 J	ND(0.50)	
	10/13/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	5.2	18.3	ND(0.50)	ND(0.50)	0.22 J	ND(0.50)	
	1/13/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	6.7	21.8	ND(0.50)	ND(0.50)	0.31 J	ND(0.50)	
	4/21/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	6.4	16.0	ND(0.50)	ND(0.50)	0.34 J	ND(0.50)	
	7/22/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	7.0	21.3	ND(0.50)	ND(0.50)	0.30 J	ND(0.50)	
	11/23/2010	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	6.4	19.4	ND(0.50)	ND(0.50)	0.25 J	ND(0.50)	
	3/1/2011	<0.5	<0.5	<0.5	<1	BRL	7.2	11.6	<0.5	<0.5	<0.5	<5	
	5/19/2011	<0.5	<0.5	<0.5	<1	BRL	6.8	15.0	<0.5	<0.5	<0.5	<5	
	7/12/2011	<1	<1	<1	<3	BRL	7.41	<20	<1	<1	<1	<5	
265 Bayview	6/23/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	0.57	ND(5.0)	NA	NA	NA	NA	
	12/19/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.50)	BRL	0.47	ND(5.0)	NA	NA	NA	NA	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.57	ND(5.0)	NA	NA	NA	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.35 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

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Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
280 Bayview EFF	3/30/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	0.34 J	ND(5)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/27/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/19/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/15/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	7/27/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/20/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

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280 Bayview INF	3/30/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.27 J	ND(5.0)	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	0.32 J	ND(5)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.19 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/27/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.22 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.36 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.24 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/19/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.24 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/15/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.23 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.17 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	7/27/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.15 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.15 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.15 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.18 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.13 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/20/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.14 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	0.052 J	ND(0.50)	ND(0.50)	0.052 J	0.14 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
280 Bayview MIN	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	7/27/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.090 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/20/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.10 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
281 Bayview EFF	3/30/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	ND(0.5)	ND(5)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/3/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/19/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/15/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/18/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
281 Bayview INF	3/30/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.5	ND(5.0)	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	0.64	ND(5)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.76	ND(5.0)	NA	NA	NA	ND(0.50)	
	4/3/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.57	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.36 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.24 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/19/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.74	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/15/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.69	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.67	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.70	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.66	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.70	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/18/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.66	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.75	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.73	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
281 Bayview MID	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.22 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/18/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
285 Bayview EFF	3/30/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	BRL	ND(0.5)	ND(5)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/27/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.31 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/19/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/15/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/18/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
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Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Naph-thalene (µg/L)	Comments
285 Bayview INF	3/30/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.66	ND(5.0)	NA	NA	NA	NA	
	6/23/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.53	ND(5.0)	NA	NA	NA	NA	
	9/26/2005	1.4	ND(0.5)	ND(0.5)	ND(0.5)	1.4	1.0	ND(5)	NA	NA	NA	NA	
	12/19/2005	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.80	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/27/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.36 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/12/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.72	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/31/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.71	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	12/19/2006	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.27 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	3/15/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.71	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/18/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/21/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
285 Bayview MID	5/31/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	NA	NA	NA	ND(0.50)	
	10/23/2007	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.11 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	3/24/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.17 J	ND(5.0)	NA	NA	NA	ND(0.50)	
	6/30/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.26 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	9/23/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	ND(0.50)	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	11/18/2008	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.20 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	2/11/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.16 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	
	4/24/2009	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	BRL	0.19 J	ND(5.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	

Table 2
Potable Water Monitoring and Analytical Data
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Notes:

µg/L - micrograms/liter
BRL - Below laboratory reporting limits
BTEX - Benzene, toluene, ethylbenzene, and total xylenes
DIPE - Di-Isopropyl Ether
ETBE - Ethyl Tertiary Butyl Ether
J - Indicates an estimated value
MTBE - Methyl Tert Butyl Ether
NA - Not analyzed
ND(5.0) - Not detected at or above the laboratory reporting limit, laboratory reporting limit included.
NS - Not sampled
TAME - Tertiary Amyl Methyl Ether
TBA - Tertiary Butyl Alcohol

Table 3
Proposed Groundwater Monitoring Progam
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland

Sampling Locations	Sampling Frequency	Planned Sampling Schedule	Analytical Parameters
MW-1A, MW-2A, MW-5A, MW-11, MW-14 259 OLD BAYVIEW ROAD 261 OLD BAYVIEW ROAD	QUARTERLY	January April July October	Full-Suite VOCs including fuel oxygenates (EPA Method 8260)
MW-3A, MW-8, MW-10, MW-12, MW-13, MW-15, MW-16	ANNUALLY	January[1]	Full-Suite VOCs including fuel oxygenates (EPA Method 8260)

Notes:

VOC - volatile organic compound

EPA - U.S. Environmental Protection Agency

1 - Annual sampling schedule will be determined based on implemtation of the Corrective Action Plan.

ARCADIS

Figures

0 200 400 Feet

GRAPHIC SCALE

NOTE:

AERIAL IMAGE: USGS WMS, 2008 MD CECIL COUNTY

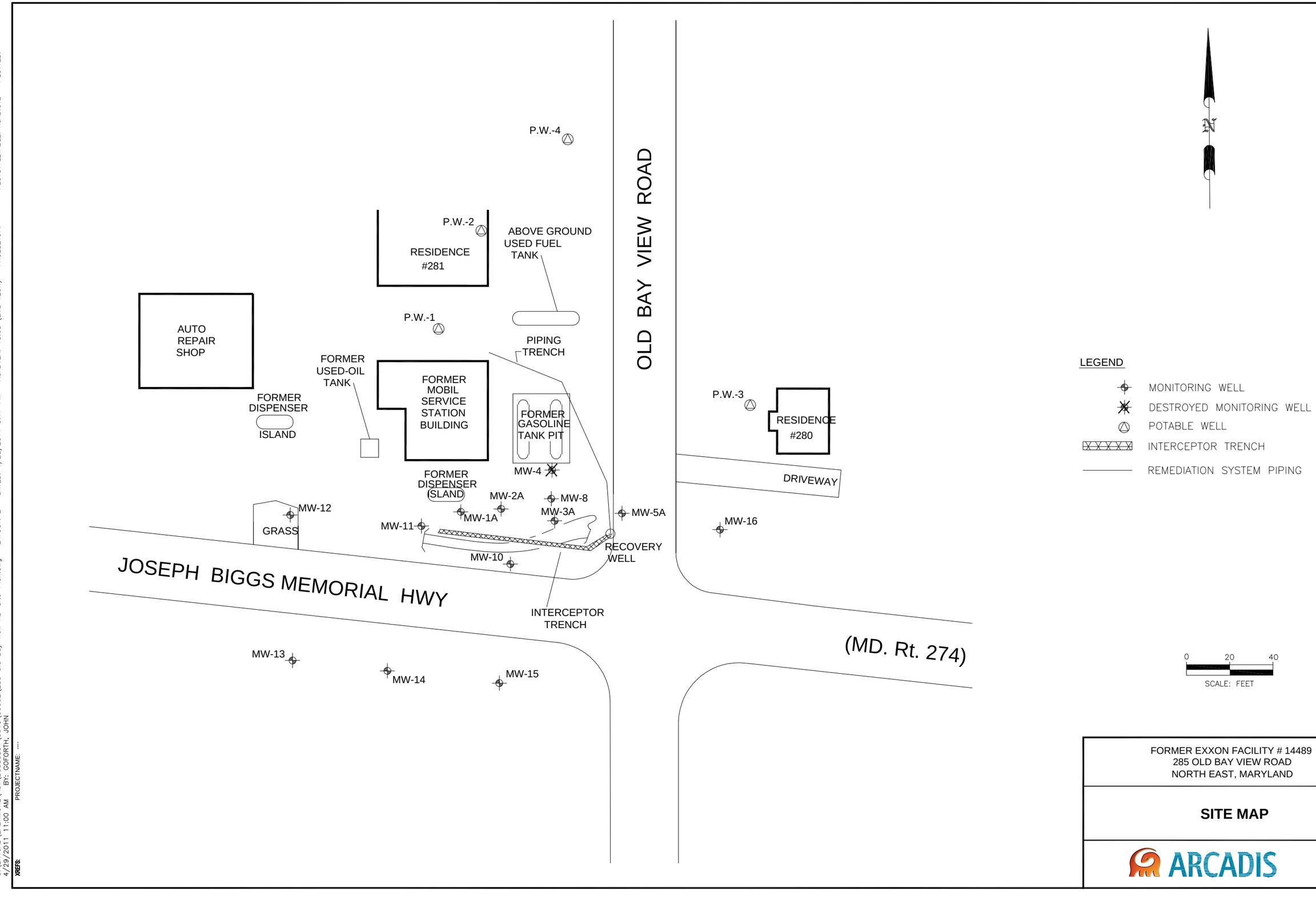
FORMER EXXON FACILITY #14489
285 OLD BAYVIEW ROAD
NORTH EAST, MARYLAND

SITE LOCATION

ARCADIS

FIGURE 1

CITY: MPLS DIV/GROUP: IM DB: MG LD: BB
EXXON NORTH EAST MD
G:\GIS\Projects\Exxon_Northeast\Site_Location.mxd - 8/24/2011 @ 12:30:24 PM



FORMER EXXON FACILITY # 14489
285 OLD BAY VIEW ROAD
NORTH EAST, MARYLAND

SITE MAP

ARCADIS

FIGURE
2

CITY:(Read) DIV/GROUP:(Read) DB:(Read) LD:(Opt) PIC:(Opt) PM:(Read) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\BALTIMORE\ACT\B0085851\0010\00002\285 Old Bay View RD-Site-Plan.dwg LAYOUT: 2 SAVED: 4/28/2011 3:17 PM
4/29/2011 11:00 AM BY: GOFORTH, JOHN ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED:
XREFs: PROJECTNAME: ----

MW–11 (7/12/2011)	
Benzene	**51.6**
Toluene	37.8
Ethylbenzene	432
Total Xylenes	487
MTBE	**120**
TBA	<20
DIPE	<1
ETBE	<1
TAME	8.06
Naphthalene	**87.5**

MW–2A (7/12/2011)	
Benzene	**316**
Toluene	850
Ethylbenzene	**1,460**
Total Xylenes	4,690
MTBE	**207**
TBA	<200
DIPE	<10
ETBE	<10
TAME	16.4
Naphthalene	**243**

MW–3A (7/12/2011)	
Benzene	<1
Toluene	<1
Ethylbenzene	<1
Total Xylenes	<3
MTBE	<1
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	<5

MW–8 (7/12/2011)	
Benzene	<1
Toluene	11.5
Ethylbenzene	15
Total Xylenes	56.3
MTBE	<1
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	<5

MW–5A (7/12/2011)	
Benzene	**35.5**
Toluene	323
Ethylbenzene	**898**
Total Xylenes	2,530
MTBE	<1
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	**267**

MW–16 (7/12/2011)	
Benzene	<1
Toluene	<1
Ethylbenzene	<1
Total Xylenes	<3
MTBE	<1
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	<5

MW–12 (7/12/2011)	
Benzene	<1
Toluene	<1
Ethylbenzene	<1
Total Xylenes	<3
MTBE	**37**
TBA	<20
DIPE	<1
ETBE	<1
TAME	6.78
Naphthalene	<5

MW–13 (7/12/2011)	
Benzene	<1
Toluene	<1
Ethylbenzene	14
Total Xylenes	43
MTBE	5.76
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	**17.1**

MW–1A (7/12/2011)	
Benzene	**117**
Toluene	**2,450**
Ethylbenzene	**1,140**
Total Xylenes	3,970
MTBE	**24.4**
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	**234**

MW–14 (7/12/2011)	
Benzene	**161**
Toluene	<1
Ethylbenzene	11.5
Total Xylenes	61.9
MTBE	**79.1**
TBA	31.7
DIPE	<1
ETBE	<1
TAME	1.29
Naphthalene	**42.2**

MW–15 (7/12/2011)	
Benzene	1.4
Toluene	<1
Ethylbenzene	<1
Total Xylenes	<3
MTBE	<1
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	<5

MW–10 (7/12/2011)	
Benzene	<1
Toluene	<1
Ethylbenzene	<1
Total Xylenes	<3
MTBE	15.4
TBA	<20
DIPE	<1
ETBE	<1
TAME	<1
Naphthalene	<5

MDE Residential Groundwater Standards	
Benzene	5
Toluene	1000
Ethylbenzene	700
Total Xylenes	10000
MTBE	20
TBA	--
TAME	--
ETBE	--
DIPE	--
Naphthalene	0.65

AUTO REPAIR SHOP
FORMER USED-OIL TANK
FORMER DISPENSER ISLAND
FORMER MOBILE SERVICE STATION BUILDING
FORMER GASOLINE TANK PIT
FORMER DISPENSER ISLAND
P.W.-1
P.W.-2
P.W.-3
P.W.-4
RESIDENCE #281
RESIDENCE #280
ABOVE GROUND USED FUEL TANK
PIPING TRENCH
OLD BAY VIEW
DRIVEWAY
GRASS
RECOVERY WELL
INTERCEPTOR TRENCH
JOSEPH BIGGS MEMORIAL HWY
(MD. Rt. 274)
MW-1A
MW-2A
MW-3A
MW-4
MW-5A
MW-8
MW-10
MW-11
MW-12
MW-13
MW-14
MW-15
MW-16
(91.17)
(91.65)
(92.39)
(91.10)
(91.23)
(88.06)
(88.95)
(85.91)
(81.75)
(79.12)
(83.52)
(81.46)

LEGEND:
- MONITORING WELL
- DESTROYED MONITORING WELL
- POTABLE WELL
- INTERCEPTOR TRENCH
- REMEDIATION SYSTEM PIPING
- 90 GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)
- (88.46) GROUND WATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

NOTES:

[254] – MDE Groundwater Clean–Up Standard
MTBE – methyl tertiary butyl ether
TBA – tert–butyl alcohol
MDE – Maryland Department of the Environment
ETBE – Ethyl Tertiary Butyl Ether
DIPE – Di–Isopropyl Ether
TAME – Tertiary Amyl Methyl Ether

All results listed in µg/L

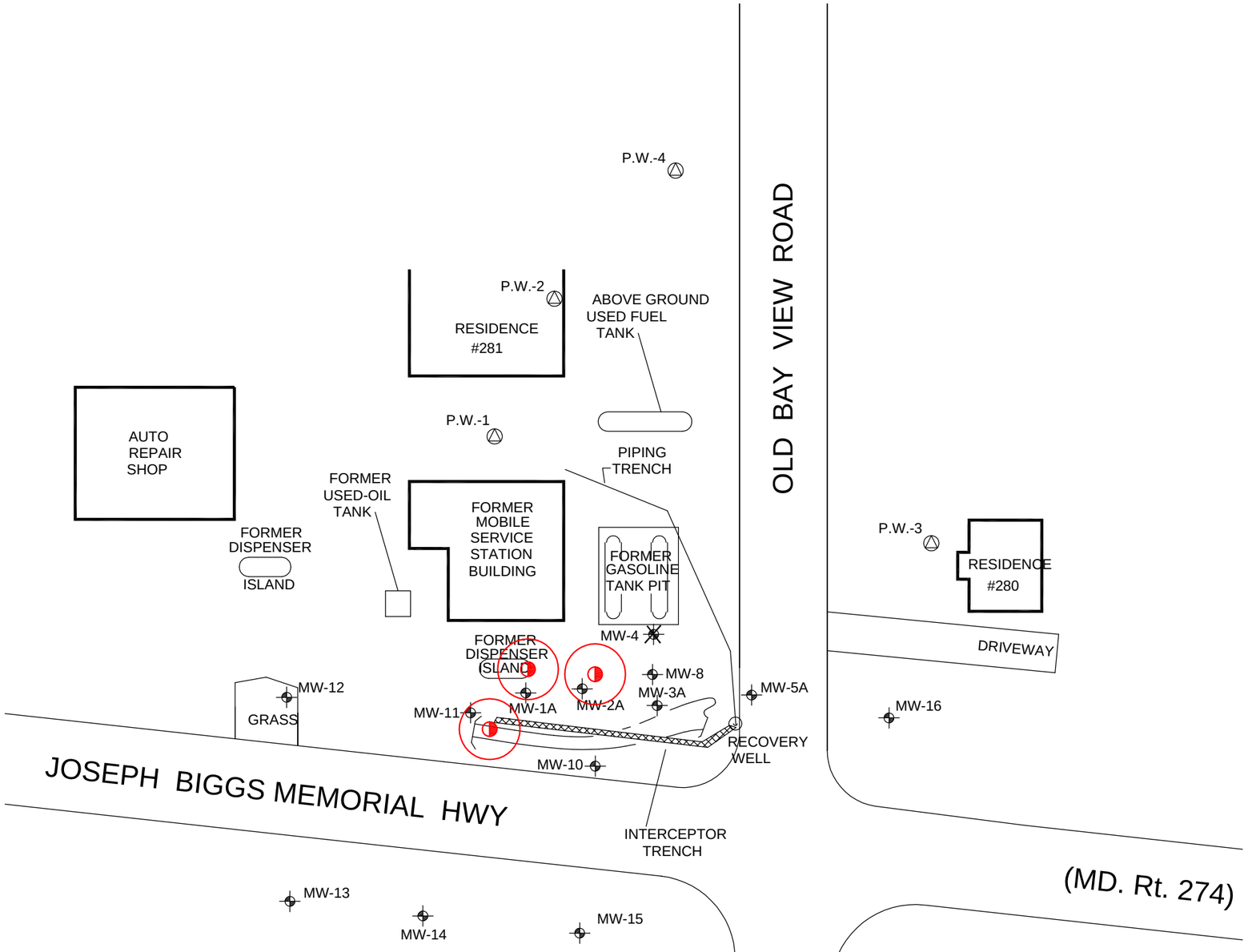
0 20 40
SCALE: FEET

FORMER EXXON FACILITY # 14489
285 OLD BAY VIEW ROAD
NORTH EAST, MARYLAND

GROUNDWATER ELEVATION CONTOURS AND ANALYTICAL DATA 12 JULY 2011

ARCADIS

FIGURE 3



LEGEND:

- MONITORING WELL
- DESTROYED MONITORING WELL
- POTABLE WELL
- PROPOSED INJECTION WELL WITH 10 FOOT RADIUS OF INFLUENCE
- INTERCEPTOR TRENCH
- REMEDIATION SYSTEM PIPING

NOTE:

1. MW-4 DESTROYED IN 2007

0 20 40

SCALE: FEET

FORMER EXXON FACILITY # 14489
285 OLD BAY VIEW ROAD
NORTH EAST, MARYLAND

PROPOSED INJECTION WELL LOCATIONS

ARCADIS

FIGURE
4

ARCADIS

Appendix A

MDE Correspondence

KLEINFELDER

CERTIFIED MAIL: 7009 3400 0012 1818 4544

January 16, 2008

Ms. Yolande Norman
Chief Remediation and State-Lead Division
Maryland Department of the Environment
Oil Control Program
Suite 620, 1800 Washington Blvd
Baltimore, Maryland 21230

RE: Response to Site Status Letter Dated November 16, 2007
Case No. 6-1205-CE
Former BayView Mobil Service Station No. 16-G1R
285 Old Bayview Road
North East, Maryland
Facility I.D. No. 2615

Dear Ms Norman:

Kleinfelder, on behalf of Exxon Mobil Corporation (ExxonMobil), has prepared this correspondence in follow up to the requirements specified in the *Site Status Letter* correspondence from the Maryland Department of Environment (MDE) dated November 16, 2007. The requirements are commented on below, but it should be noted that Kleinfelder accepts the requirements as stated by the MDE

"*1) Submit the UST Removal and Post Excavation Sampling Report*;"

The MDE required the submittal of the UST Removal and Post-excavation sampling report no later than January 15, 2007. The UST removal, excavation, and sampling activities were completed by Mr. Curtis Abrams (Property Owner and Current Operator). ExxonMobil does not have responsibility for this requirement and expects that the MDE will receive the report from Mr. Abrams.

"*2) Begin Quarterly (every three months) sampling of the monitoring well network*;"

A review of the historic groundwater analytical data suggests that primarily the trends in dissolved phase hydrocarbon concentrations, in the monitoring wells, are either decreasing or stable; suggesting that quarterly groundwater sampling may not be necessary at this time. Therefore, Kleinfelder, on behalf of ExxonMobil, proposes that this site remain on a semi-annual groundwater sampling schedule, unless a significant deviation from existing trends is observed. The groundwater samples will be analyzed for full suite volatile organic compounds (VOCs) including fuel oxygenates using Environmental Protection Agency (EPA) Method 8260, and total petroleum hydrocarbons – gasoline range organics (TPH-GRO) and total petroleum hydrocarbons – diesel range organics (TPH-DRO) using EPA Method 8015 as proposed by the MDE.

"3) *Provide written documentation of a schedule for when area drinking water wells will be connected to public water.*"

Kleinfelder and ExxonMobil are currently in the process of securing easements from the residents and town for installation and connection of the water line. It is expected that the easement requests will be approved by the town and the permitting process will be completed by June 2008.

Kleinfelder, on behalf of ExxonMobil, will continue to coordinate the connection of the residence to municipal water, and will update the MDE when the approved easements are received from the town, with an anticipated schedule of installation and connection. If you have any questions or require any additional information, please contact us at (410) 850-0404

Sincerely,
Kleinfelder East, Inc.

Brian P. Shedd
Environmental Scientist

Ann Harris
Senior Project Manager

cc: Mr. Curtis Abrams – Property Owner and Current Operator
Ms. Ann F. Barker – Town of North East
Mr. Charles Smyser – Cecil County Health Department
Mr. Herbert M. Meade – Maryland Department of the Environment
Ms. Beth S. Conklin – Exxon Mobil Corporation

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Oil Control Program, Suite 620, 1800 Washington Blvd , Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

April 14, 2008

Ms Anne F. Barker, Clerk/Treasurer
Town of North East
106 South Main Street
P.O Box 528
North East MD 21901-0528

RE: SITE STATUS LETTER
Case No. 1986-1205-CE
Former Bayview Mobil Service Station No. 16-G1R
285 Old Bayview Road, North East
Facility ID No. 2615

Dear Ms Barker:

The Oil Control Program is in receipt of your letter dated February 29, 2008 concerning the status of the pending connection of Bayview area citizens to public water as a result of petroleum contamination documented and monitored at the above-referenced property located in Cecil County The Department has been in communication with the new project manager for the ExxonMobil Corporation, Ms. Beth Conklin. The Department was assured that attorneys for ExxonMobil were instructed to work with area residents to secure the necessary easements prior to approaching the Town of North East for water allocations

The Oil Control Program appreciates your assistance in this matter. If you have any questions, please contact the case manager, Ms Susan Bull, at 410-537-3499 or via email: sbull@mde state md us

Sincerely,

Yolande J C. Norman, Chief
Remediation and State-Lead Division
Oil Control Program

SRB
cc: Ms Beth Conklin (ExxonMobil Corp)
Mr. Curtis Abrams (Property Owner)
Mr. Brian P. Shedd (Kleinfelder, Inc.)
Mr. Charles Smyser (Cecil County Health Dept.)
Mr Herbert M. Meade
Mr Horacio Tablada

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

May 5, 2009

Mrs. Mary Hughes
77 Fair Hill Drive
Elkton MD 21921

RE: Case No. 1986-1205-CE
Former Bayview Mobil Service Station #16-G1R
285 Old Bayview Road, North East
Cecil County, Maryland

Dear Mrs. Hughes:

The Oil Control Program (OCP) recently completed a review of the analytical data (*enclosed)* for samples collected from the drinking water supply well at 280 Old Bayview Road. Between February 1996 and February 2009, ExxonMobil monitored the quality of the drinking water at your residential property. The sample collected on September 6, 2001 detected the highest level of methyl tertiary-butyl ether (MTBE) at 2.6 parts per billion (ppb). The most recent sample collected from this well on February 11, 2009 was non-detect for petroleum constituents.

The State's action level for MTBE is 20 ppb. For close to 13 years of sampling, MTBE within your well water has never reached the State's action level. Based on the analytical data, the Department does not require ExxonMobil to continue sampling or maintaining treatment on your drinking water well. The Department appreciates your cooperation and will continue to monitor groundwater conditions at the former Bayview Mobil facility under MDE-OCP Case No. 1986-1205-CE. The Department reserves the right to require future sampling of private off-site drinking water wells should site conditions change.

If you have any questions regarding the groundwater investigation, please contact the case manager, Mr. Chad Widney at 410-537-3386 (email: cwidney@mde.state.md.us) or me at 410-537-3499 (email: sbull@mde.state.md.us).

Sincerely,

Susan Bull, Western Region Section Head
Remediation and State-Lead Division, Oil Control Program

CW/nln
Enclosure
cc: Ms. Natalie Morales Hendricks (Kleinfelder East, Inc.)
Ms. Ann F. Baker (Town of North East)
Mr. Charles Smyser (Cecil County Health Department)
Mr. Christopher H. Ralston
Mr. Herbert M. Meade
Mr. Horacio Tablada

Off-site Private Drinking Water Sampling Results for 280 Old Bayview Road

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
280 Old Bayview Road (PW-3)	2/12/96	ND (pre/post-filtration)	ND (pre/post-filtration)
	2/21/96	ND (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	3/27/96	ND (pre/post-filtration)	NS (pre/post-filtration)
	11/8/96	ND (post-filtration)	NS (post-filtration)
	4/16/97	ND (post-filtration)	ND (post-filtration)
	10/15/97	ND (post-filtration)	ND (post-filtration)
	12/30/97	ND (post-filtration)	ND (post-filtration)
	4/28/98	ND (post-filtration)	ND (post-filtration)
	10/30/98	ND (post-filtration)	ND (post-filtration)
	2/20/99	ND (post-filtration)	ND (post-filtration)
	6/17/99	ND (pre/post-filtration)	1.1 (pre-filtration) ND (post-filtration)
	8/18/99	ND (pre/post-filtration)	0.8 (pre-filtration) ND (post-filtration)
	11/8/99	ND (post-filtration)	ND (post-filtration)
	2/16/00	ND (post-filtration)	ND (post-filtration)
	5/18/00	ND (pre/post-filtration)	0.6 (pre-filtration) ND (post-filtration)
	8/23/00	ND (post-filtration)	ND (post-filtration)
	2/12/01	ND (pre/post-filtration)	ND (pre/post-filtration)
	6/29/01	ND (pre/post-filtration)	0.8 (pre-filtration) ND (post-filtration)
	9/6/01	ND (pre/post-filtration)	2.6 (pre-filtration) 1.5 (post-filtration)
	12/11/01	ND (pre-filtration)	0.40 estimated value (pre-filtration)
	3/14/02	ND (pre/post-filtration)	0.29 estimated value (pre-filtration) ND (post-filtration)
	9/17/02	ND (pre/post-filtration)	ND (pre-filtration) 0.65 estimated value (post-filtration)
	12/18/02	ND (pre/post-filtration)	0.29 estimated value (pre-filtration) 0.36 estimated value (post-filtration)
	3/12/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	9/29/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	6/16/04	ND (pre/post-filtration)	0.25 estimated value (pre-filtration) 0.31 estimated value (post-filtration)
	9/29/04	ND (post-filtration)	ND (post-filtration)
	12/21/04	ND (pre/post-filtration)	0.23 (pre-filtration) ND (post-filtration)
	3/30/05	ND (pre/post-filtration)	0.27 estimated value (pre-filtration) ND (post-filtration)
	6/23/05	ND (pre/post-filtration)	0.29 (pre-filtration) ND (mid-filtration) 0.23 (post-filtration)
	9/26/05	ND (pre/post-filtration)	0.32 estimated value (pre-filtration) 0.34 estimated value (post-filtration)
	12/19/05	ND (pre/mid/post-filtration)	0.19 (pre-filtration) ND (mid/post-filtration)
	3/27/06	ND (pre/post-filtration)	0.22 (pre-filtration) ND (post-filtration)
	6/12/06	ND (pre/mid/post filtration)	0.36 (pre-filtration) ND (mid/post-filtration)
	10/31/06	ND (pre/mid/post filtration)	0.24 (pre-filtration) ND (mid/post-filtration)
	12/19/06	ND (pre/post-filtration)	0.24 estimated value (pre-filtration) ND (post-filtration)
	3/15/07	ND (pre/mid/post-filtration)	0.23 (pre-filtration) ND (mid/post-filtration)
	5/31/07	ND (pre/mid/post-filtration)	0.17 (pre-filtration) ND (mid/post-filtration)
	7/27/07	ND (pre/mid/post-filtration)	0.15 (pre-filtration) ND (mid/post-filtration)
	10/23/07	ND (pre/mid/post filtration)	0.15 (pre-filtration) ND (mid/post-filtration)
	03/24/08	ND (pre/mid/post filtration)	0.15 (pre-filtration) ND (mid/post-filtration)

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
280 Old Bayview Road (PW-3) cont.	06/30/08	ND (pre/mid/post filtration)	0.18 (pre-filtration) 0.09 (mid-filtration) ND (post-filtration)
	09/23/08	ND (pre/mid/post filtration)	0.13 (pre-filtration) ND (mid/post-filtration)
	11/20/08	ND (pre/mid/post filtration)	0.14 (pre-filtration) ND (mid/post-filtration)
	02/11/09	ND (pre/mid/post filtration)	ND (pre/mid/post filtration)

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

February 27, 2008

Ms. Beth Conklin (Former Operator)
ExxonMobil Corporation
217 Country Club Park, PMB #101
Birmingham AL 35213

Mr. Curtis Abrams (Property Owner and Former Operator)
285 Old Bay View Road
North East MD 21901

RE: SITE STATUS LETTER
Case No. 1986-1205-CE
Former Bayview Mobil Service Station #16-G1R
285 Old Bayview Road, Northeast
Facility No. 2615

Dear Ms. Conklin and Mr. Abrams:

The Oil Control Program recently completed a review of the *Response to Site Status Letter Dated November 16, 2007 - January 16, 2008* and the *UST Removal and Post-Excavation Sampling Report - December 2, 2007* for the above-referenced property located in Cecil County. ExxonMobil is in the process of securing easements from the residents and the town for the installation and connection of the municipal water line. ExxonMobil projects that the easement requests will be approved by the Town of North East and the permitting process will be completed by June 2008. Construction and connection to municipal water will commence thereafter

The Department is in receipt of the tank disposal receipts and post-excavation sampling data. Post-excavation soil samples collected on July 10, 2007 revealed the continued presence of petroleum constituents including: total petroleum hydrocarbons/gasoline range organics (TPH-GRO) at 345,900 parts per billion (ppb). The Department is still awaiting soil disposal receipts.

The Department does not agree with ExxonMobil's consultant that quarterly sampling of the monitoring well network is not necessary at this time. Although the underground storage tanks (USTs) and petroleum-impacted soils were removed in July 2007, groundwater samples collected in December 2007 revealed the continued presence of residual groundwater contamination [benzene at 275 ppb; toluene at 3,730 ppb; ethylbenzene at 2,380 ppb; and methyl tertiary butyl ether (MTBE) at 934 ppb]. The Department also notes seasonal fluctuations in the sampling data provided.

Upon completion of the connection of residential properties to municipal water, the Department will be reviewing this case for potential closure. Given that the site is located is a high-risk groundwater use area; off-site impacts to private wells have been documented. Until the connection to municipal water has been completed, the Department hereby requires the following:

1. No later than April 1, 2008, submit soil disposal receipts.

2. To ensure the Department has the seasonal time series data required to properly assess this site for closure, quarterly **(every three months)** sampling of all remaining monitoring wells must begin on April 1, 2008. All samples collected must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates, using EPA Method 8260.

3. Beginning April 2008, the granular activated carbon (GAC) filtration unit retro-fitted to the drinking water supply well servicing 259 Old Bayview Road must be sampled quarterly **(every three months)**. Samples must be collected pre-; mid-; and post-filtration and analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2.

If you have any questions regarding this case, please contact the case manager, Ms. Susan Bull, at 410-537-3499 or via email sbull@mde.state.md.us.

Sincerely,

Yolande J.C. Norman, Chief
Remediation and State Lead Division
Oil Control Program

SRB

cc: Mr. Brian P. Shedd (Kleinfelder East, Inc.)
Mr. Charles Broomall (resident 259 Old Bayview Road)
Ms. Ann F. Baker (Town of North East)
Mr. Chuck Smyser (Cecil County Health Department)
Mr. Herbert M. Meade
Mr. Horacio Tablada

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

May 5, 2009

Mr. Mike Geci (Former Operator)
Project Manager
ExxonMobil Corporation
PO Box 221436
Chantilly VA 20153

Mr. Curtis Abrams (Property Owner and Former Operator)
285 Old Bayview Road
North East MD 21901

RE: SITE STATUS LETTER
Case No. 1986-1205-CE
Former Bayview Mobil Service Station #16-G1R
285 Old Bayview Road, North East
Cecil County, Maryland
Facility No. 2615

Dear Messrs. Geci and Abrams:

The Oil Control Program recently completed a review of the case file for the above-referenced property, including the *Fourth Quarter 2008 Groundwater Monitoring Report - January 30, 2009* and the *February 2009 Potable Well Analytical Results - April 6, 2009* report. Since the final decommission of all known underground storage tanks (USTs) in July 2007, ExxonMobil has monitored a network of 16 on-site and off-site monitoring wells. Recent sampling in November 2008 revealed the continued presence of residual groundwater contamination [benzene at 817 parts per billion (ppb); toluene at 2,330 ppb; ethylbenzene at 1,860 ppb; and methyl tertiary-butyl ether (MTBE) at 624 ppb] in the vicinity of the former UST system.

Between 1995 and 2009, 15 off-site private drinking water supply wells were sampled. Granular activated carbon (GAC) filtration systems were retrofitted to four private drinking water wells (259, 280, 281, and 285 Old Bayview Road). Petroleum constituents remain in one off-site private well above regulatory levels (259 Old Bayview Road).

Based on the current and historical groundwater sampling data, removal of the former UST system, and excavation of petroleum impacted soil, the Department no longer requires the continued operation of the GAC systems retrofitted to 280, 281, and 285 Old Bayview Road. The Department is aware that ExxonMobil continues to secure easements from the residents located at 259 Old Bayview Road for the installation and connection of the municipal water line. Until easements are secured, the Department will continue to require ExxonMobil to provide, monitor, and maintain the GAC system at this location.

Until further notice the Department requires:

(1) Continued **quarterly (every three months)** sampling of the on-site and off-site monitoring well network. All samples collected must be analyzed for **full-suite** volatile organic compounds (VOCs), including fuel oxygenates, using EPA Method 8260.

(2) Continue **quarterly (every three months)** monitoring of the GAC system retro-fitted to the drinking water well serving 259 Old Bayview Road. Samples must be collected pre-, mid-, and post-filtration and analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2.

(3) Continue **quarterly (every three months)** sampling of the drinking water well located at 261 Old Bayview Road. Samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2.

If you have any questions, please contact the case manager, Mr. Chad Widney, at 410-537-3386 (email cwidney@mde.state.md.us) or me at 410-537-3499 (email: sbull@mde.state.md.us).

Sincerely,

Susan R. Bull, Western Region Section Head
Remediation and State Lead Division
Oil Control Program

SRB/nln

cc: Ms. Natalie Morales Hendricks (Kleinfelder East, Inc.)
Mr. and Mrs. Thomas Murtaugh (261 Old Bayview Road)
Mrs. Mary Hughes (280 Old Bayview Road)
Mr. Charles Broomall (259 Old Bayview Road)
Ms. Ann F. Baker (Town of North East)
Mr. Charles Smyser (Cecil County Health Department)
Mr. Christopher H. Ralston
Mr. Herbert M. Meade
Mr. Horacio Tablada

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

May 5, 2009

Mr. Mike Geci (Former Operator)
Project Manager
ExxonMobil Corporation
PO Box 221436
Chantilly VA 20153

Mr. Curtis Abrams (Property Owner and Former Operator)
285 Old Bayview Road
North East MD 21901

RE: SITE STATUS LETTER
Case No. 1986-1205-CE
Former Bayview Mobil Service Station #16-G1R
285 Old Bayview Road, North East
Cecil County, Maryland
Facility No. 2615

Dear Messrs. Geci and Abrams:

The Oil Control Program recently completed a review of the case file for the above-referenced property, including the *Fourth Quarter 2008 Groundwater Monitoring Report - January 30, 2009* and the *February 2009 Potable Well Analytical Results - April 6, 2009* report. Since the final decommission of all known underground storage tanks (USTs) in July 2007, ExxonMobil has monitored a network of 16 on-site and off-site monitoring wells. Recent sampling in November 2008 revealed the continued presence of residual groundwater contamination [benzene at 817 parts per billion (ppb); toluene at 2,330 ppb; ethylbenzene at 1,860 ppb; and methyl tertiary-butyl ether (MTBE) at 624 ppb] in the vicinity of the former UST system.

Between 1995 and 2009, 15 off-site private drinking water supply wells were sampled. Granular activated carbon (GAC) filtration systems were retrofitted to four private drinking water wells (259, 280, 281, and 285 Old Bayview Road). Petroleum constituents remain in one off-site private well above regulatory levels (259 Old Bayview Road).

Based on the current and historical groundwater sampling data, removal of the former UST system, and excavation of petroleum impacted soil, the Department no longer requires the continued operation of the GAC systems retrofitted to 280, 281, and 285 Old Bayview Road. The Department is aware that ExxonMobil continues to secure easements from the residents located at 259 Old Bayview Road for the installation and connection of the municipal water line. Until easements are secured, the Department will continue to require ExxonMobil to provide, monitor, and maintain the GAC system at this location.

Until further notice the Department requires:

(1) Continued **quarterly (every three months)** sampling of the on-site and off-site monitoring well network. All samples collected must be analyzed for **full-suite** volatile organic compounds (VOCs), including fuel oxygenates, using EPA Method 8260.

(2) Continue **quarterly (every three months)** monitoring of the GAC system retro-fitted to the drinking water well serving 259 Old Bayview Road. Samples must be collected pre-, mid-, and post-filtration and analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2.

(3) Continue **quarterly (every three months)** sampling of the drinking water well located at 261 Old Bayview Road. Samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2.

If you have any questions, please contact the case manager, Mr. Chad Widney, at 410-537-3386 (email cwidney@mde.state.md.us) or me at 410-537-3499 (email: sbull@mde.state.md.us).

Sincerely,

Susan R. Bull, Western Region Section Head
Remediation and State Lead Division
Oil Control Program

SRB/nln

cc: Ms. Natalie Morales Hendricks (Kleinfelder East, Inc.)
Mr. and Mrs. Thomas Murtaugh (261 Old Bayview Road)
Mrs. Mary Hughes (280 Old Bayview Road)
Mr. Charles Broomall (259 Old Bayview Road)
Ms. Ann F. Baker (Town of North East)
Mr. Charles Smyser (Cecil County Health Department)
Mr. Christopher H. Ralston
Mr. Herbert M. Meade
Mr. Horacio Tablada

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

May 5, 2009

Mr. Curtis Abrams
285 Old Bayview Road
North East MD 21901

RE: Case No. 1986-1205-CE
Former Bayview Mobil Service Station #16-G1R
285 Old Bayview Road, North East
Cecil County, Maryland
Facility No. 2615

Dear Mr. Abrams:

The Oil Control Program (OCP) recently completed a review of the analytical data *(enclosed)* for samples collected from the drinking water supply wells located at 281 and 285 Old Bayview Road. Between December 1995 and February 2009, ExxonMobil monitored the quality of the drinking water at both of these properties.

281 Old Bayview Road

The sample collected on June 12, 2003 detected the highest level of methyl tertiary-butyl ether (MTBE) in the well serving 281 Old Bayview Road [4.5 parts per billion (ppb)]. The most recent sample collected on February 11, 2009 detected MTBE at 0.75 ppb. The State's action level for MTBE is 20 ppb. For close to 13 years of sampling, MTBE within your well water has never reached the State's action level.

285 Old Bayview Road

The sample collected on December 27, 1995 detected the highest level of benzene in the well serving 281 Old Bayview Road (9.4 ppb). The sampling history reveals that benzene was last detected in this well in September 2005 (1.4 ppb) and has not been detected since. Benzene is a compound generally found in petroleum products. The maximum contaminant level (MCL) for benzene is 5 ppb. Benzene contamination has not exceeded the MCL since February 2001.

Sampling of this well also detected MTBE. The sample collected on February 12, 2001 detected the highest level of MTBE at 1.6 ppb. The most recent sample collected on February 11, 2009 was non-detect for MTBE in the pre-treatment sample. For close to 13 years of monitoring, MTBE within your well water has never reached the State's action level of 20 ppb.

Based on the analytical data, the Department does not require ExxonMobil to continue sampling or maintaining treatment on your drinking water wells. The Department appreciates your cooperation and will continue to monitor groundwater conditions at the former Bayview Mobil facility under MDE-OCP Case No. 1986-1205-CE. The Department reserves the right to require future sampling of private off-site drinking water wells should site conditions change.

If you have any questions regarding the groundwater investigation, please contact the case manager, Mr. Chad Widney at 410-537-3386 (email: cwidney@mde.state.md.us) or me at 410-537-3499 (email: sbull@mde.state.md.us).

Sincerely,

Susan Bull, Western Region Section Head
Remediation and State-Lead Division
Oil Control Program

CW/nln

Enclosure

cc: Ms. Natalie Morales Hendricks (Kleinfelder East, Inc.)
Ms. Ann F. Baker (Town of North East)
Mr. Charles Smyser (Cecil County Health Department)
Mr. Christopher H. Ralston
Mr. Herbert M. Meade
Mr. Horacio Tablada

Private Drinking Water Sampling Results for 281 Old Bayview Road

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
Off-site Private Wells cont.			
281 Old Bayview Road (residence)	12/27/95	ND (pre/post-filtration)	NS (pre/post-filtration)
	3/27/96	ND (pre/post-filtration)	NS (pre/post-filtration)
	7/24/96	ND (post-filtration)	NS (post-filtration)
	11/8/96	ND (post-filtration)	NS (post-filtration)
	1/27/97	ND (pre/post-filtration)	ND (pre/post-filtration)
	4/16/97	ND (pre/post-filtration)	ND (pre/post-filtration)
	7/24/97	ND (pre/post-filtration)	ND (pre/post-filtration)
	10/15/97	ND (pre/post-filtration)	ND (pre/post-filtration)
	12/30/97	ND (pre/post-filtration)	ND (pre/post-filtration)
	4/28/98	ND (pre/post filtration)	3.3 (pre-filtration); ND (post-filtration)
	7/30/98	ND (pre/post filtration)	2.9 (pre-filtration); ND (post-filtration)
	10/30/98	ND (pre/post filtration)	1.4 (pre-filtration); ND (post-filtration)
	2/20/99	ND (pre/post filtration)	0.8 (pre-filtration); ND (post-filtration)
	6/17/99	ND (pre/post filtration)	0.7 (pre-filtration); ND (post-filtration)
	8/18/99	ND (pre/post filtration)	1 (pre-filtration); ND (post-filtration)
	11/8/99	ND (pre/post-filtration)	ND (pre/post-filtration)
	2/16/00	ND (pre/post-filtration)	ND (pre/post-filtration)
	5/18/00	ND (pre/post-filtration)	ND (pre/post-filtration)
	8/23/00	ND (pre/post-filtration)	ND (pre/post-filtration)
	2/12/01	ND (pre/post-filtration)	ND (pre/post-filtration)
	6/29/01	ND (pre/post-filtration)	ND (pre/post-filtration)
	9/6/01	ND (pre/post-filtration)	ND (pre/post-filtration)
	12/11/01	ND (pre/post filtration)	0.33 estimated value (pre-filtration) ND (post-filtration)
	3/14/02	ND (pre/post filtration)	0.48 estimated value (pre-filtration) ND (post-filtration)
	6/13/02	ND (pre/post filtration)	0.37 estimated value (pre-filtration) ND (post-filtration)
	9/17/02	ND (pre/post-filtration)	ND (pre/post-filtration)
	12/18/02	ND (pre/post-filtration)	ND (pre/post-filtration)
	3/12/03	ND (pre/post filtration)	2.5 (pre-filtration); ND (post-filtration)
	6/12/03	ND (pre/post filtration)	4.5 (pre-filtration); ND (post-filtration)
	9/29/03	ND (pre/post filtration)	4.1 (pre-filtration); ND (post-filtration)
	12/18/03	ND (pre/post filtration)	2.1 (pre-filtration); ND (post-filtration)
	3/10/04	ND (pre/post filtration)	3.0 (pre-filtration); ND (post-filtration)
	6/16/04	ND (pre/post filtration)	1.8 (pre-filtration); ND (post-filtration)
	9/29/04	ND (pre/post filtration)	2.0 (pre-filtration); ND (post-filtration)
	12/21/04	ND (pre/post filtration)	1.4 (pre-filtration); ND (post-filtration)
		ND (pre/post filtration)	0.51 (pre); ND (post-filtration)
	6/23/05	ND (pre/mid/ post-filtration)	0.49 (pre); ND (mid/post-filtration)
	9/26/05	ND (pre/post filtration)	0.64 (pre-); ND (post-filtration)
	12/19/05	ND (pre/post filtration)	0.76 (pre-); ND (post-filtration)
	04/03/06	ND (pre/mid/ post-filtration)	0.57 (pre); 0.51 (mid); D (post-filter)
	6/12/06	ND (pre/mid/ post-filtration)	0.36 (pre-); ND (mid/post-filtration)
	10/31/06	ND (pre/mid/ post-filtration)	0.24 (pre-);ND (mid/post-filtration)
	12/19/06	ND (pre/post-filtration)	0.74 (pre-);ND (post-filtration)
	3/15/07	ND (pre/mid/post filtration)	0.69 (pre); 0.58 (mid); ND (post-filter)
	5/31/07	ND (pre/mid/post-filtration)	0.67 (pre-); ND (mid/post-filtration)
	7/27/07	ND (pre/mid/post-filtration)	ND (pre); 0.11 (mid); ND (post filter)
	10/23/07	ND (pre/mid/post-filtration)	ND (pre); 0.70 (mid); ND (post-filter)
	03/24/08	ND (pre/mid/post filtration)	0.66 (pre-); ND (mid/post-filtration)
	06/30/08	ND (pre/mid/post filtration)	0.70 (pre-); ND (mid/post-filtration)
	09/23/08	ND (pre/mid/post filtration)	ND (pre/mid/post-filtration)
	11/18/08	ND (pre/mid/post filtration)	0.66 (pre-); ND (mid/post-filtration)
	02/11/09	ND (pre/mid/post filtration)	0.75 (pre-); ND (mid/post-filtration)

Drinking Water Sampling Results from 285 Old Bayview Road, Northeast

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
285 Old Bayview Road (Bayview Mobil)	12/27/95	9.4 (pre-filtration) ND (post-filtration)	NS (pre-filtration) NS (post-filtration)
	3/27/96	9.2 (pre-filtration) ND (post-filtration)	NS (pre-filtration) NS (post-filtration)
	5/14/96	ND (post-filtration)	NS (post-filtration)
	7/24/96	ND (post-filtration)	NS (post-filtration)
	11/8/96	ND (post-filtration)	NS (post-filtration)
	1/27/97	8.1 (pre-filtration) ND (post-filtration)	NS (pre-filtration) NS (post-filtration)
	4/16/97	4.6 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	7/24/97	4.5 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	10/15/97	8.2 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	12/30/97	6 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	4/28/98	1.4 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	7/30/98	0.9 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	10/30/98	10 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	2/20/99	17 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	6/17/99	2.8 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	8/18/99	25 (pre-filtration) ND (post-filtration)	1.2 (pre-filtration) ND (post-filtration)
	11/8/99	2.9 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	2/16/00	1.4 (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	5/18/00	10 (pre-filtration) ND (post-filtration)	0.8 (pre-filtration) ND (post-filtration)
	8/23/00	5.9 (pre-filtration) ND (post-filtration)	0.7 (pre-filtration) ND (post-filtration)
	2/12/01	7.3 (pre-filtration) ND (post-filtration)	1.6 (pre-filtration) ND (post-filtration)
	6/29/01	ND (pre/post-filtration)	ND (pre/post-filtration)
	9/6/01	ND (pre-filtration) ND (post-filtration)	0.7 (pre-filtration) ND (post-filtration)
	12/11/01	ND (pre-filtration) ND (post-filtration)	0.68 (pre-filtration) ND (post-filtration)
	3/14/02	ND (pre-filtration) ND (post-filtration)	0.46 estimated value (pre-filtration) ND (post-filtration)
	6/13/02	ND (pre-filtration) ND (post-filtration)	0.35 estimated value (pre-filtration) ND (post-filtration)
	9/17/02	ND (pre-filtration) ND (post-filtration)	1.1 (pre-filtration) ND (post-filtration)
	12/18/02	ND (pre-filtration) ND (post-filtration)	0.45 estimated value (pre-filtration) ND (post-filtration)
	3/12/03	ND (pre-filtration) ND (post-filtration)	0.34 estimated value (pre-filtration) ND (post-filtration)
	6/12/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	9/29/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	12/18/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	3/10/04	ND (pre/post-filtration)	ND (pre/post-filtration)
	6/16/04	ND (pre/post-filtration)	ND (pre/post-filtration)
	9/29/04	ND (pre-filtration) ND (post-filtration)	0.4 estimated value (pre-filtration) ND (post-filtration)
	12/21/04	ND (pre-filtration) ND (post-filtration)	0.62 (pre-filtration) ND (post-filtration)
	3/30/05	ND (pre-filtration) ND (post-filtration)	0.66 (pre-filtration) ND (post-filtration)

Drinking Water Sampling Results from 285 Old Bayview Road, Northeast (cont.)

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
Transient Non-Community Supply Well			
285 Old Bayview Road	6/23/05	ND (pre-filtration) ND (mid/post-filtration)	0.53 (pre-filtration) 0.56 (mid-filtration) ND (post-filtration)
	9/26/05	1.4 (pre-filtration) ND (post-filtration)	1.0 (pre-filtration) ND (post-filtration)
	12/19/05	ND (pre-filtration) ND (post-filtration)	0.80 (pre-filtration) ND (post-filtration)
	3/27/06	ND (pre-filtration) ND (post-filtration)	0.36 (pre-filtration) ND (post-filtration)
	6/12/06	ND (pre-filtration) ND (mid/post-filtration)	0.72 (pre-filtration) 0.68 (mid-filtration) 0.31 (post-filtration)
	10/31/06	ND (pre-filtration) ND (mid/post-filtration)	0.71 (pre-filtration) 0.66 (mid-filtration) ND (post-filtration)
	12/19/06	ND (pre-filtration) ND (post-filtration)	0.27 estimated (pre-filtration) ND (post-filtration)
	3/15/07	ND (pre/mid/post-filtration)	ND (pre/mid/post-filtration)
	5/31/07	ND (pre/mid/post-filtration)	ND (pre/mid/post-filtration)
	7/27/07	ND (pre/mid/post-filtration)	0.65 (pre-filtration) ND (mid/post-filtration)
	10/23/07	ND (pre/mid/post-filtration)	ND (pre-filtration) 0.11 (mid-filtration) ND (post-filtration)
	03/24/08	ND (pre/mid/post-filtration)	ND (pre-filtration) 0.17 (mid-filtration) ND (post-filtration)
	06/30/08	ND (pre/mid/post-filtration)	ND (pre-filtration) 0.26 (mid-filtration) ND (post-filtration)
	09/23/08	ND (pre/mid/post-filtration)	ND (pre-filtration) ND (mid-filtration) ND (post-filtration)
	11/18/08	ND (pre/mid/post-filtration)	ND (pre-filtration) 0.20 (mid-filtration) ND (post-filtration)
	02/11/09	ND (pre/mid/post-filtration)	ND (pre-filtration) 0.16 (mid-filtration) ND (post-filtration)

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 • 410-537-3092 (fax) 1-800-633-6101

May 5, 2009

Mrs. Mary Hughes
77 Fair Hill Drive
Elkton MD 21921

RE: Case No. 1986-1205-CE
Former Bayview Mobil Service Station #16-G1R
285 Old Bayview Road, North East
Cecil County, Maryland

Dear Mrs. Hughes:

The Oil Control Program (OCP) recently completed a review of the analytical data (*enclosed)* for samples collected from the drinking water supply well at 280 Old Bayview Road. Between February 1996 and February 2009, ExxonMobil monitored the quality of the drinking water at your residential property. The sample collected on September 6, 2001 detected the highest level of methyl tertiary-butyl ether (MTBE) at 2.6 parts per billion (ppb). The most recent sample collected from this well on February 11, 2009 was non-detect for petroleum constituents.

The State's action level for MTBE is 20 ppb. For close to 13 years of sampling, MTBE within your well water has never reached the State's action level. Based on the analytical data, the Department does not require ExxonMobil to continue sampling or maintaining treatment on your drinking water well. The Department appreciates your cooperation and will continue to monitor groundwater conditions at the former Bayview Mobil facility under MDE-OCP Case No. 1986-1205-CE. The Department reserves the right to require future sampling of private off-site drinking water wells should site conditions change.

If you have any questions regarding the groundwater investigation, please contact the case manager, Mr. Chad Widney at 410-537-3386 (email: cwidney@mde.state.md.us) or me at 410-537-3499 (email: sbull@mde.state.md.us).

Sincerely,

Susan Bull, Western Region Section Head
Remediation and State-Lead Division, Oil Control Program

CW/nln
Enclosure
cc: Ms. Natalie Morales Hendricks (Kleinfelder East, Inc.)
Ms. Ann F. Baker (Town of North East)
Mr. Charles Smyser (Cecil County Health Department)
Mr. Christopher H. Ralston
Mr. Herbert M. Meade
Mr. Horacio Tablada

Off-site Private Drinking Water Sampling Results for 280 Old Bayview Road

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
280 Old Bayview Road (PW-3)	2/12/96	ND (pre/post-filtration)	ND (pre/post-filtration)
	2/21/96	ND (pre-filtration) ND (post-filtration)	ND (pre-filtration) ND (post-filtration)
	3/27/96	ND (pre/post-filtration)	NS (pre/post-filtration)
	11/8/96	ND (post-filtration)	NS (post-filtration)
	4/16/97	ND (post-filtration)	ND (post-filtration)
	10/15/97	ND (post-filtration)	ND (post-filtration)
	12/30/97	ND (post-filtration)	ND (post-filtration)
	4/28/98	ND (post-filtration)	ND (post-filtration)
	10/30/98	ND (post-filtration)	ND (post-filtration)
	2/20/99	ND (post-filtration)	ND (post-filtration)
	6/17/99	ND (pre/post-filtration)	1.1 (pre-filtration) ND (post-filtration)
	8/18/99	ND (pre/post-filtration)	0.8 (pre-filtration) ND (post-filtration)
	11/8/99	ND (post-filtration)	ND (post-filtration)
	2/16/00	ND (post-filtration)	ND (post-filtration)
	5/18/00	ND (pre/post-filtration)	0.6 (pre-filtration) ND (post-filtration)
	8/23/00	ND (post-filtration)	ND (post-filtration)
	2/12/01	ND (pre/post-filtration)	ND (pre/post-filtration)
	6/29/01	ND (pre/post-filtration)	0.8 (pre-filtration) ND (post-filtration)
	9/6/01	ND (pre/post-filtration)	2.6 (pre-filtration) 1.5 (post-filtration)
	12/11/01	ND (pre-filtration)	0.40 estimated value (pre-filtration)
	3/14/02	ND (pre/post-filtration)	0.29 estimated value (pre-filtration) ND (post-filtration)
	9/17/02	ND (pre/post-filtration)	ND (pre-filtration) 0.65 estimated value (post-filtration)
	12/18/02	ND (pre/post-filtration)	0.29 estimated value (pre-filtration) 0.36 estimated value (post-filtration)
	3/12/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	9/29/03	ND (pre/post-filtration)	ND (pre/post-filtration)
	6/16/04	ND (pre/post-filtration)	0.25 estimated value (pre-filtration) 0.31 estimated value (post-filtration)
	9/29/04	ND (post-filtration)	ND (post-filtration)
	12/21/04	ND (pre/post-filtration)	0.23 (pre-filtration) ND (post-filtration)
	3/30/05	ND (pre/post-filtration)	0.27 estimated value (pre-filtration) ND (post-filtration)
	6/23/05	ND (pre/post-filtration)	0.29 (pre-filtration) ND (mid-filtration) 0.23 (post-filtration)
	9/26/05	ND (pre/post-filtration)	0.32 estimated value (pre-filtration) 0.34 estimated value (post-filtration)
	12/19/05	ND (pre/mid/post-filtration)	0.19 (pre-filtration) ND (mid/post-filtration)
	3/27/06	ND (pre/post-filtration)	0.22 (pre-filtration) ND (post-filtration)
	6/12/06	ND (pre/mid/post filtration)	0.36 (pre-filtration) ND (mid/post-filtration)
	10/31/06	ND (pre/mid/post filtration)	0.24 (pre-filtration) ND (mid/post-filtration)
	12/19/06	ND (pre/post-filtration)	0.24 estimated value (pre-filtration) ND (post-filtration)
	3/15/07	ND (pre/mid/post-filtration)	0.23 (pre-filtration) ND (mid/post-filtration)
	5/31/07	ND (pre/mid/post-filtration)	0.17 (pre-filtration) ND (mid/post-filtration)
	7/27/07	ND (pre/mid/post-filtration)	0.15 (pre-filtration) ND (mid/post-filtration)
	10/23/07	ND (pre/mid/post filtration)	0.15 (pre-filtration) ND (mid/post-filtration)
	03/24/08	ND (pre/mid/post filtration)	0.15 (pre-filtration) ND (mid/post-filtration)

Sample Location	Sample Date	Petroleum Constituents of Concern	
		Benzene *(MCL - 5 ppb)*	MTBE *(20 ppb – action level)*
280 Old Bayview Road (PW-3) cont.	06/30/08	ND (pre/mid/post filtration)	0.18 (pre-filtration) 0.09 (mid-filtration) ND (post-filtration)
	09/23/08	ND (pre/mid/post filtration)	0.13 (pre-filtration) ND (mid/post-filtration)
	11/20/08	ND (pre/mid/post filtration)	0.14 (pre-filtration) ND (mid/post-filtration)
	02/11/09	ND (pre/mid/post filtration)	ND (pre/mid/post filtration)

Appendix B

Soil Boring Logs

DRILL LOG

CLIENT: Mobil Corporation LOCATION: Northeast Maryland Station #16-G1R	MONITOR WELL#: MW-12 TOTAL DEPTH: 18 Feet LOGGED BY: George Flam DRILLER: KCI Drilling Company DRILL RIG: Truck Mounted B-61 METHOD: Hollow Stem Auger DATE DRILLED: 3/7/91
WELL CONSTRUCTION: 3 Feet Riser 15 Feet Screen Locking Cap and Cover	

DEPTH (FT)	CLASSIFICATION	LITHOLOGICAL DESCRIPTION	OVA (ppm)
0-1	OL	Topsoil (FILL)	
1-6	CL	Red sandy CLAY with gravel and cobbles (fill)	1 @ 2'-4' 94 @ 4'-6'
6-18	ML	Light brown and yellow clayey SILT	24 @ 6'-8' 105 @ 8'-10'

REMARKS: Water at 18 feet upon completion.

Form F/0583.1

DRILL LOG

CLIENT: Mobil Corporation LOCATION: Northeast Maryland Station #16-G1R	MONITOR WELL#: MW-13 TOTAL DEPTH: 18 Feet LOGGED BY: George Flam DRILLER: KCI Drilling Company DRILL RIG: Truck Mounted B-61 METHOD: Hollow Stem Auger DATE DRILLED: 3/7/91
WELL CONSTRUCTION: 3 Feet Riser 15 Feet Screen Locking Cap and Cover	

DEPTH (FT)	CLASSIFICATION	LITHOLOGICAL DESCRIPTION	OVA (ppm)
0-1	OL	Topsoil (FILL)	
1-5	ML	Yellow-brown SILT with trace gravel	0 @ 2'-4' 0 @ 4'-6'
5-19	ML	Yellow to red-yellow SILT (saprolite)	0 @ 6'-8' 0 @ 8'-10'

REMARKS: Caved at 18 feet; water at 12 feet upon completion. Large quartz fragments at 5 feet.

DRILL LOG

CLIENT: Mobil Corporation LOCATION: Northeast Maryland Station #16-G1R	MONITOR WELL#: MW-14 TOTAL DEPTH: 18 Feet LOGGED BY: George Flam DRILLER: KCI Drilling Company DRILL RIG: Truck Mounted B-61 METHOD: Hollow Stem Auger DATE DRILLED: 3/7/91
WELL CONSTRUCTION: 3 Feet Riser 15 Feet Screen Locking Cap and Cover	

DEPTH (FT)	CLASSIFICATION	LITHOLOGICAL DESCRIPTION	OVA (ppm)
0-1	OL	Topsoil (FILL)	
1-4	ML	Red to white-yellow SILT, trace mica, sand, and gravel	0 @ 2'-4' 0 @ 4'-6'
4-18	ML	Gray and yellow micaceous SILT with trace sand (saprolite)	0 @ 6'-8' 0 @ 8'-10'

REMARKS: Water at 16 feet upon completion. Large quartz fragment and difficult drilling from 4.5 to 5 feet.

DRILL LOG

CLIENT: Mobil Corporation LOCATION: Northeast Maryland Station #16-G1R	MONITOR WELL#: MW-15 TOTAL DEPTH: 18 Feet LOGGED BY: George Flam DRILLER: KCI Drilling Company DRILL RIG: Truck Mounted B-61 METHOD: Hollow Stem Auger DATE DRILLED: 3/7/91
WELL CONSTRUCTION: 3 Feet Riser 15 Feet Screen Locking Cap and Cover	

DEPTH (FT)	CLASSIFICATION	LITHOLOGICAL DESCRIPTION	OVA (ppm)
0-1	OL	Topsoil (FILL)	
1-5	ML	Red to light yellow SILT, trace mica and sand	0 @ 2'-4' 0 @ 4'-6'
5-18	ML	Gray-yellow SILT with some mica and sand (saprolite)	.2 @ 6'-8' .2 @ 8'-10'

REMARKS: Water at 17 feet upon completion.

Form F/0518

DRILL LOG

CLIENT: Mobil Corporation LOCATION: Northeast Maryland Station #16-G1R	MONITOR WELL#: MW-16 TOTAL DEPTH: 18 Feet LOGGED BY: George Flam DRILLER: KCI Drilling Company DRILL RIG: Truck Mounted B-61 METHOD: Hollow Stem Auger DATE DRILLED: 3/7/91
WELL CONSTRUCTION: 3 Feet Riser 15 Feet Screen Locking Cap and Cover	

DEPTH (FT)	CLASSIFICATION	LITHOLOGICAL DESCRIPTION	OVA (ppm)
0-1	OL	Topsoil (FILL)	
1-5	CL	Red micaceous sandy CLAY with gravel and some cobbles (fill)	0 @ 2'-4' 0 @ 4'-6'
5-19	ML	Gray-orange micaceous SILT with trace sand	0 @ 6'-8' 0 @ 8'-10'

REMARKS: Caved at 18.5 feet; water at 18 feet upon completion.

Form F/0518

TABLE 1

Summary of Soil Boring and Well Point Construction Details

Mobil Oil Corporation
Service Station No. 16-G1R
Northeast, Maryland

Boring ID	Sample Depth (feet below grade)	VOC Concentration ppm	Soil Composition
SB-1	3 - 7 7 - 10 10 - 13	18.3 12.8 20.2	Brown, gray clay, dry Same as Above Yellow/green clay, some pebbles, moist @ 12 feet End of Boring at 20 feet Well completed with 10 feet of screen and 10 feet of riser
SB-2	6 - 8	18.7	Brown clay, some pebbles, moist @ 7.5 feet End of Boring at 20 feet Well completed with 10 feet of screen and 10 feet of riser
SB-3	8 - 10	1,243	Brown clay, some pebbles, moist @ 9 feet End of Boring at 25 feet Well completed with 15 feet of screen and 10 feet of riser

VOC - Volatile organic compounds (parts per million) as measured with a photo ionization detector
ppm - parts per million

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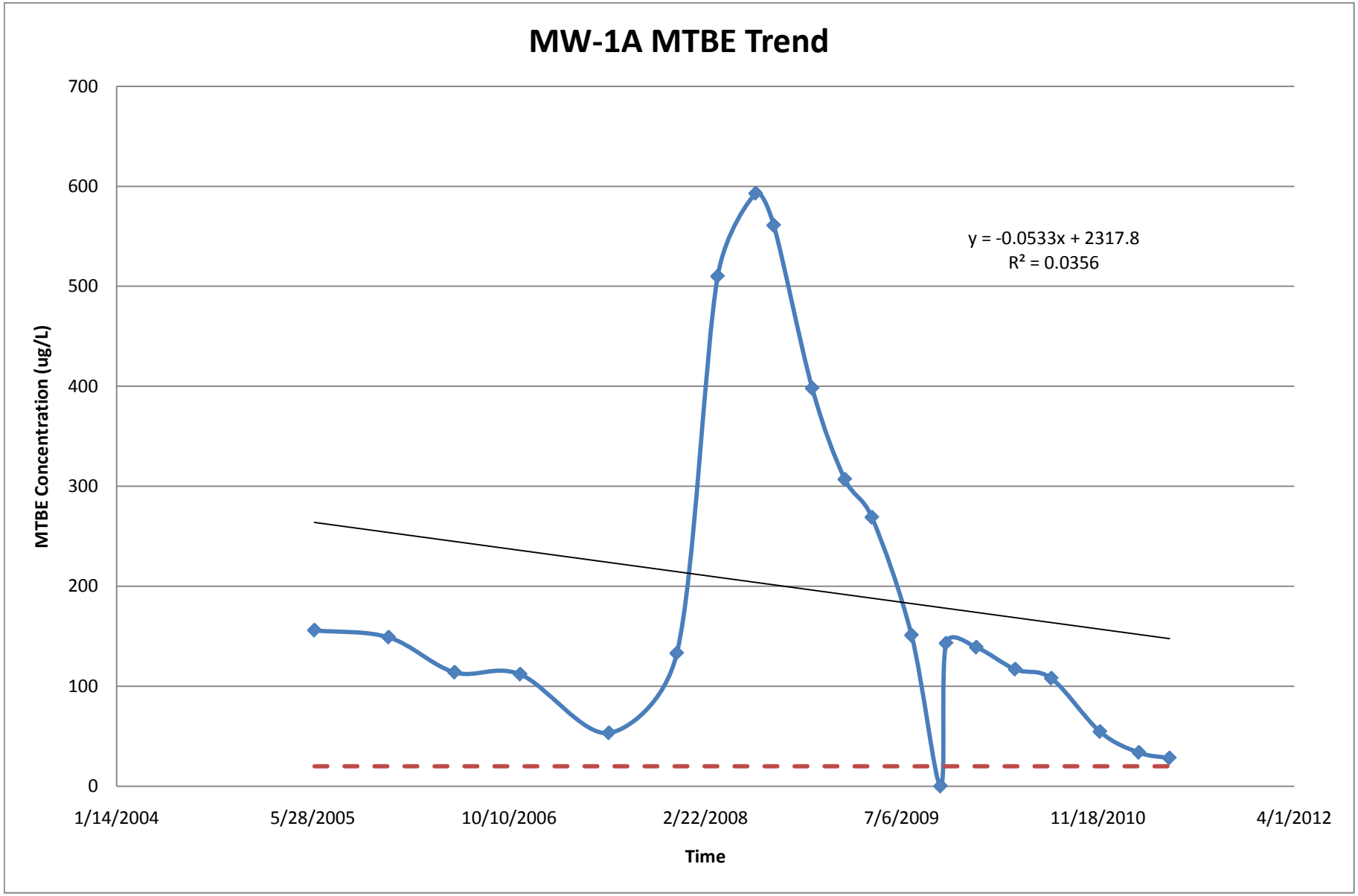
Appendix C

Trend Plots for Benzene and MTBE

Appendix C
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



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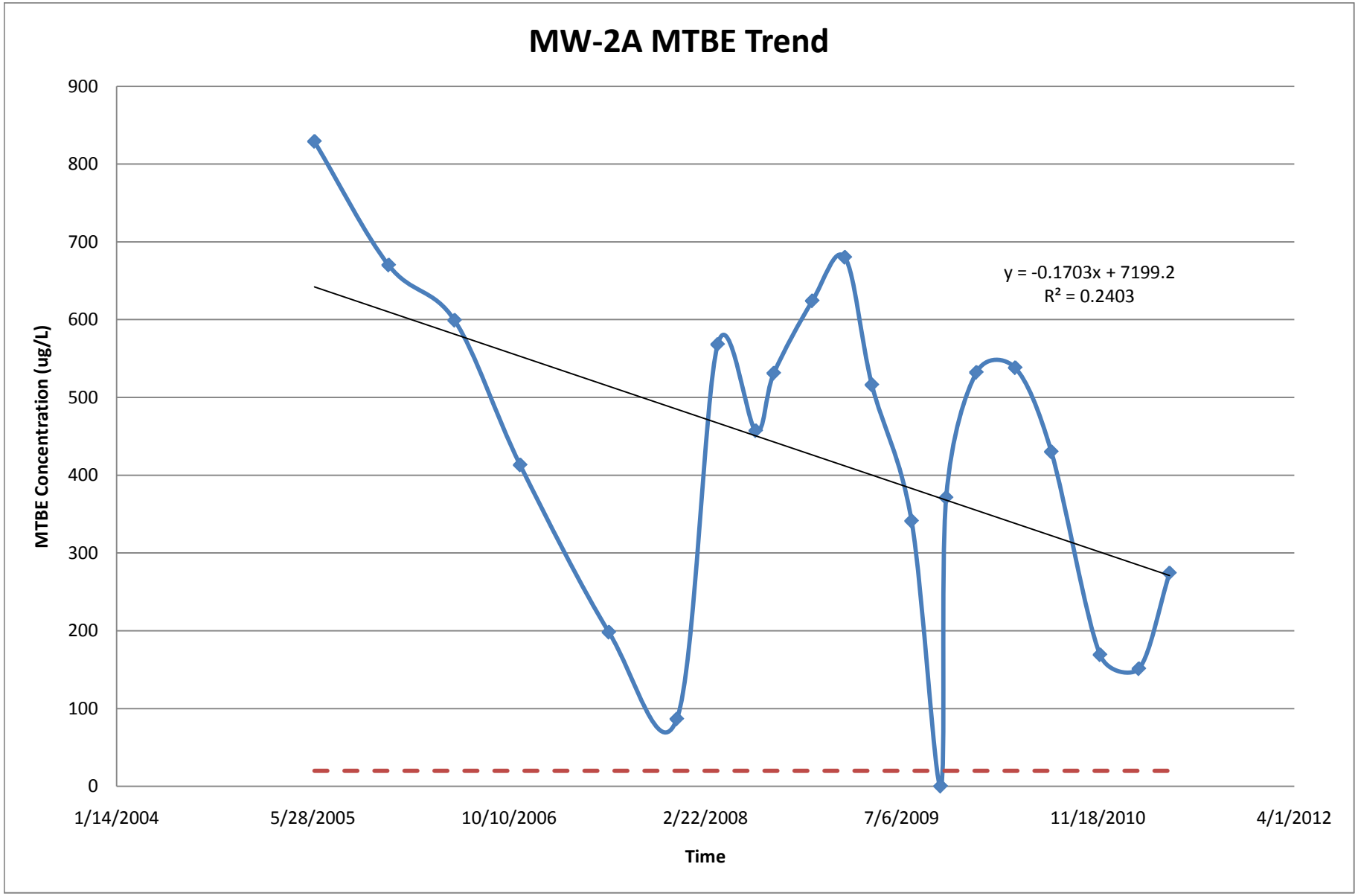
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



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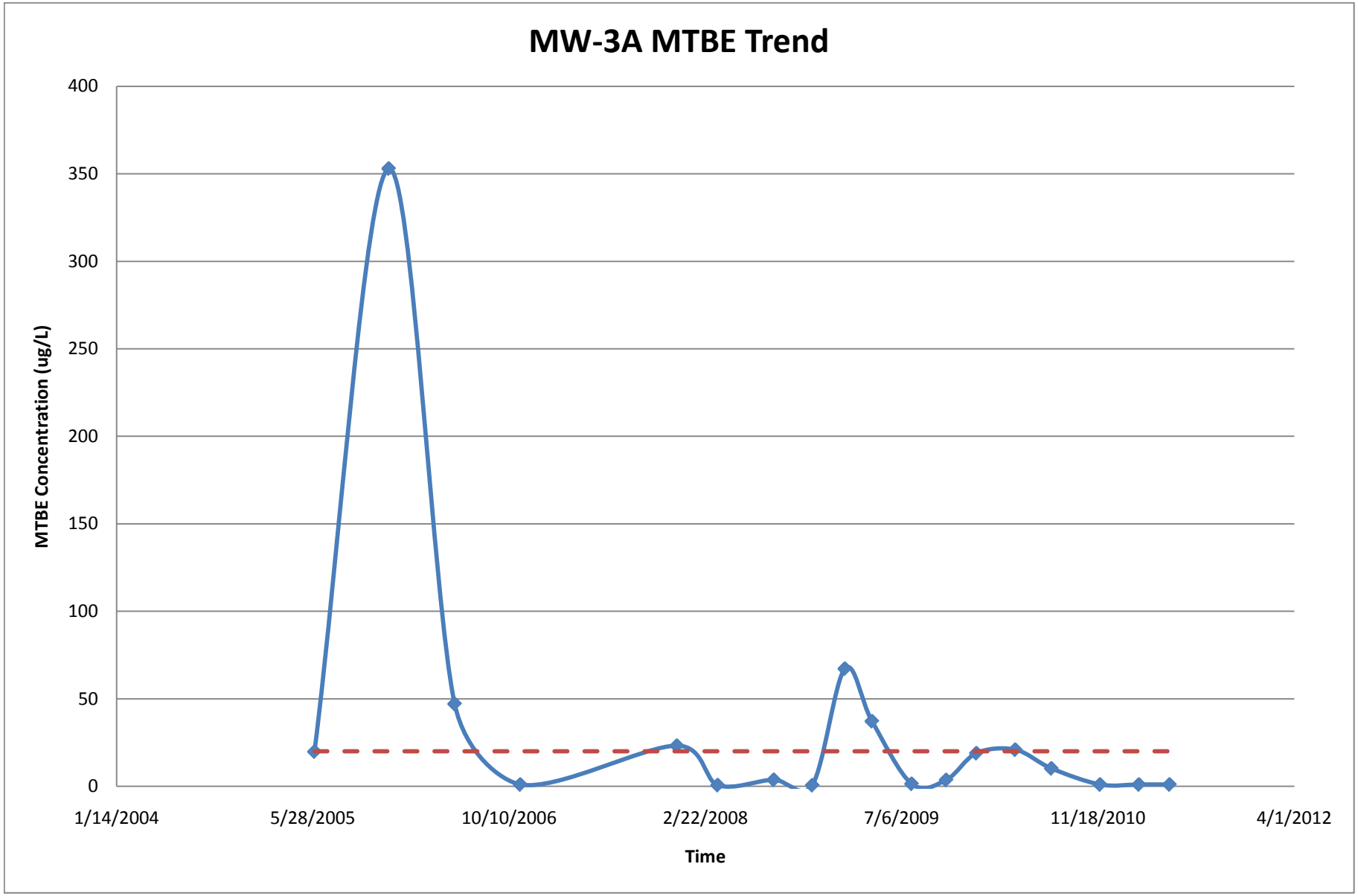
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



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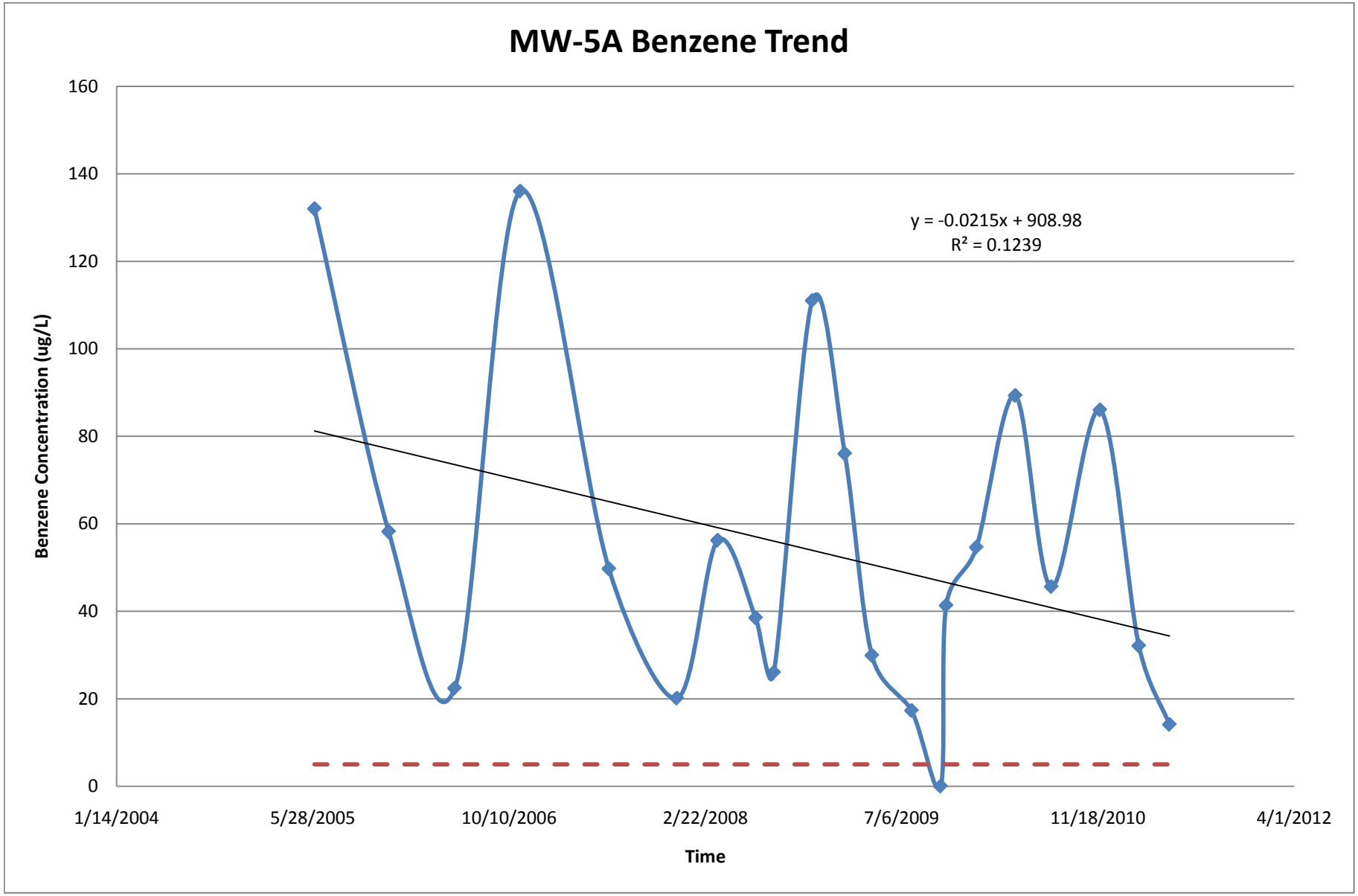
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



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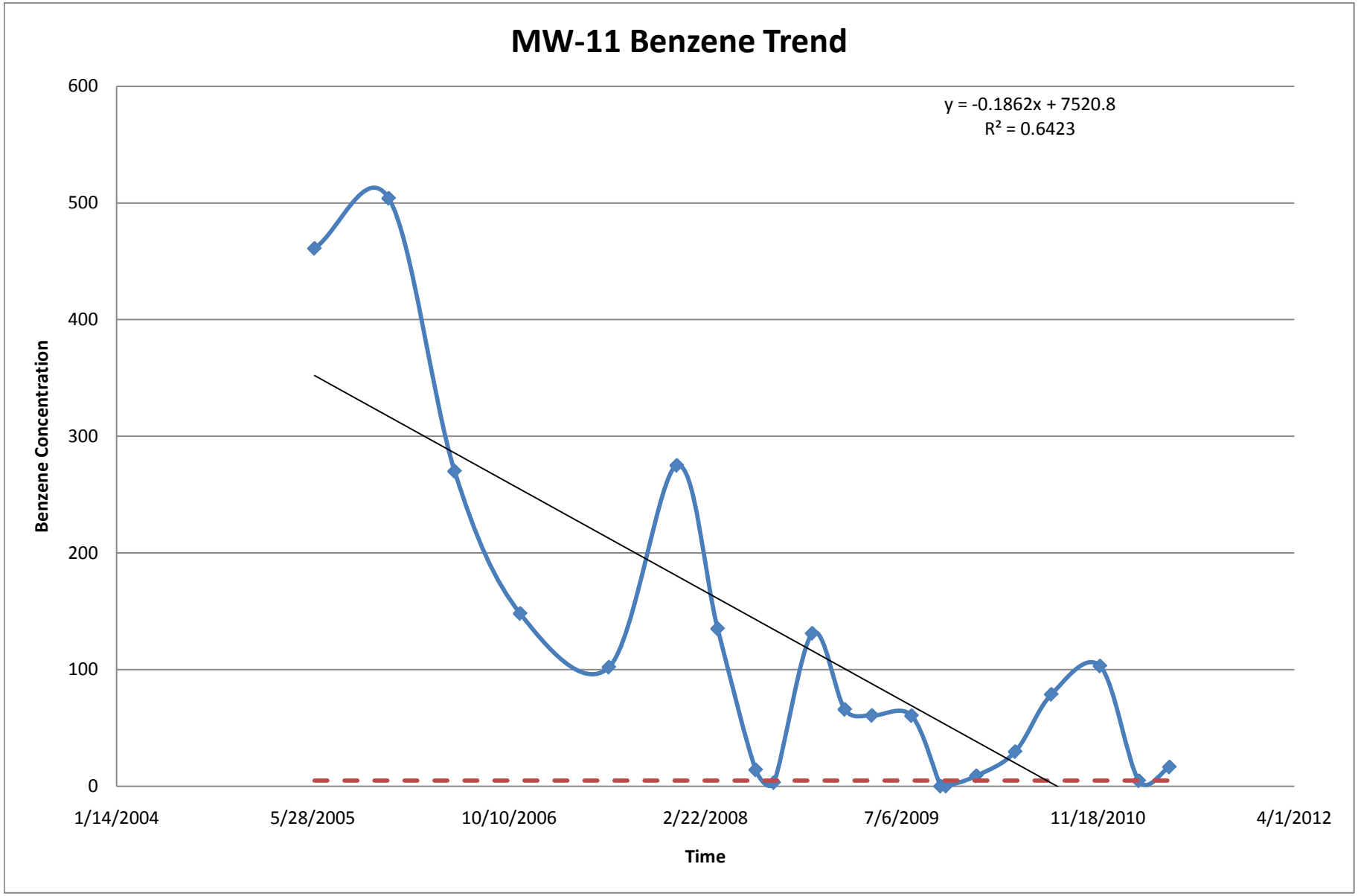
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



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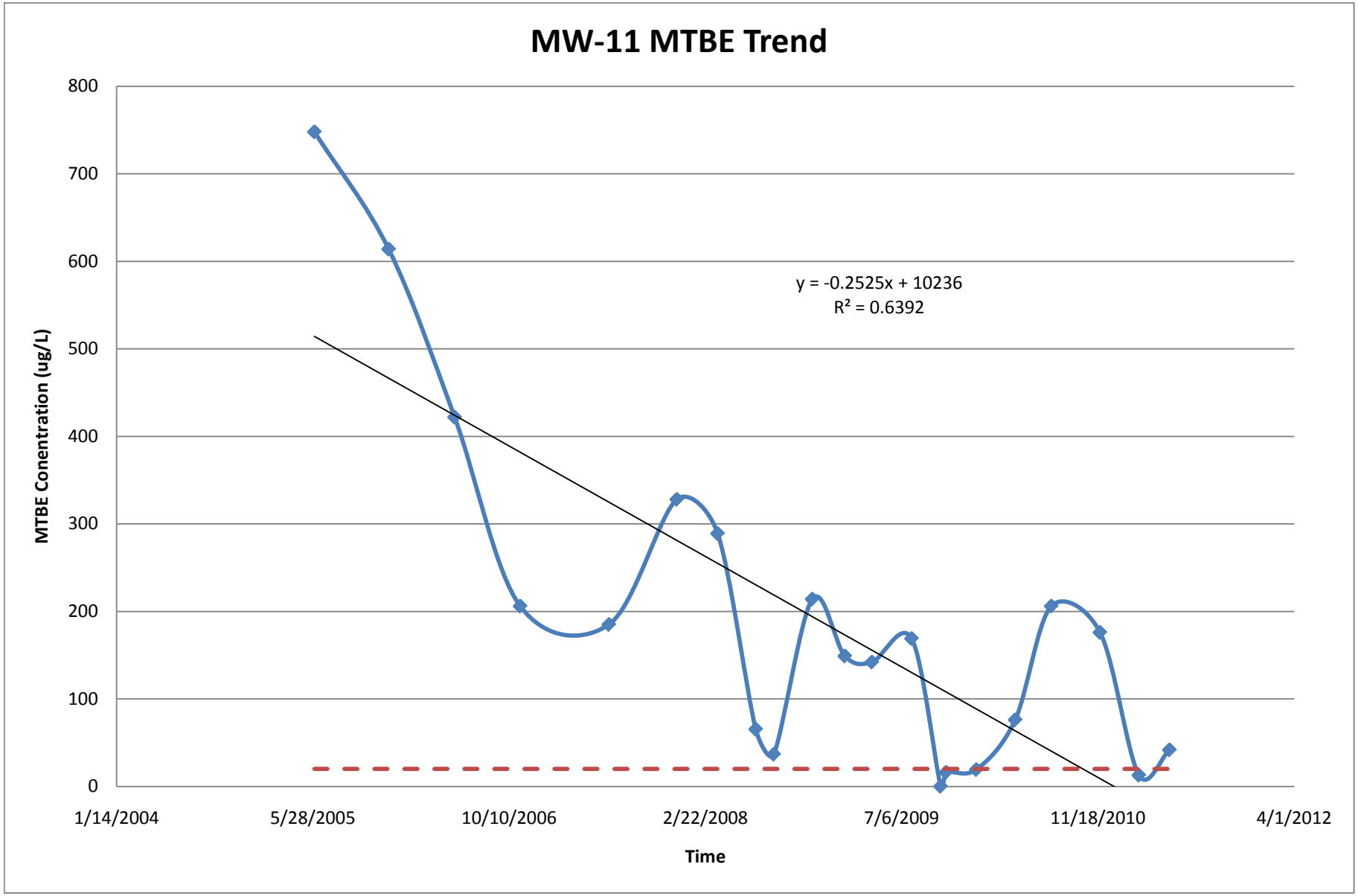
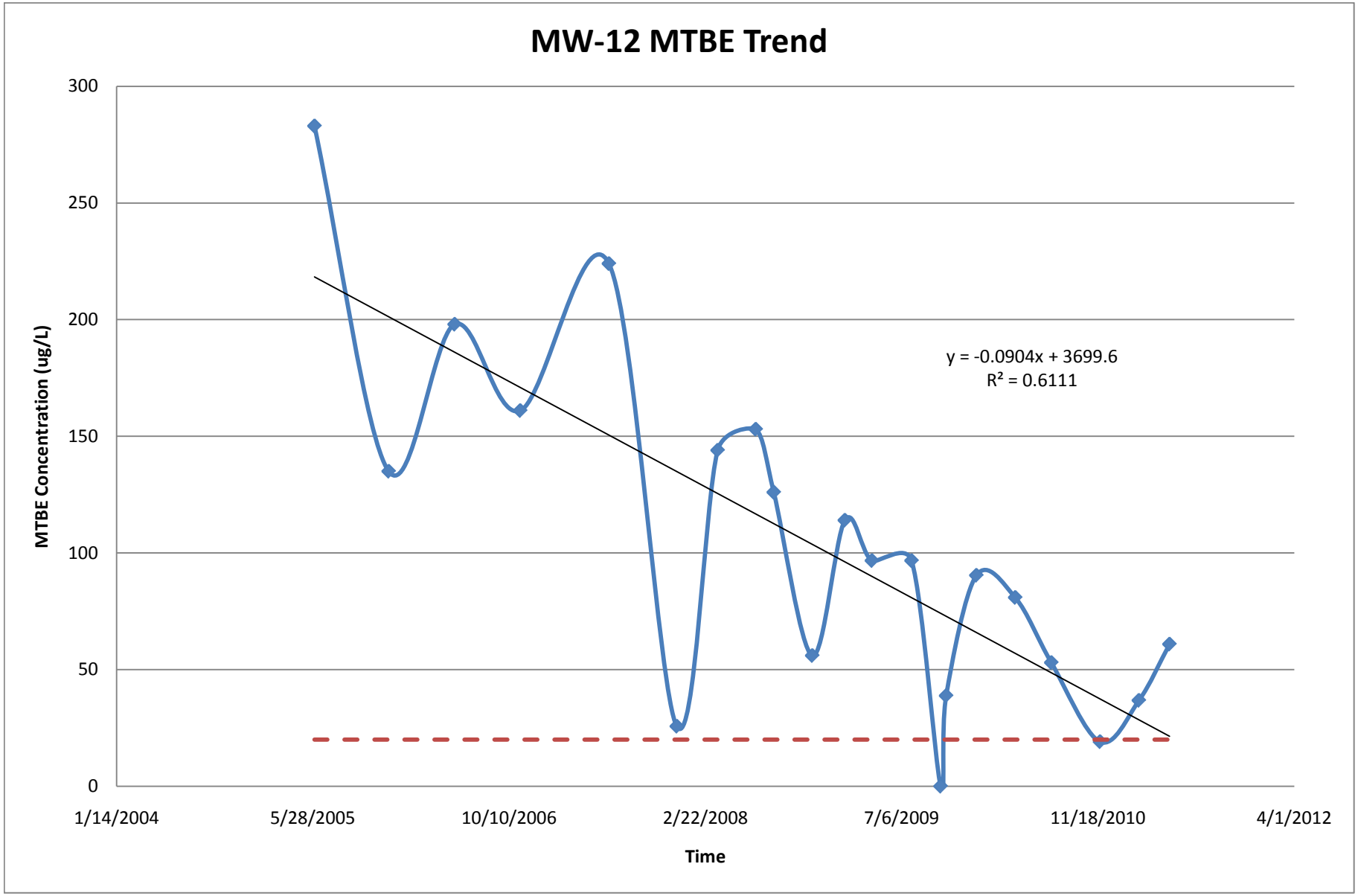
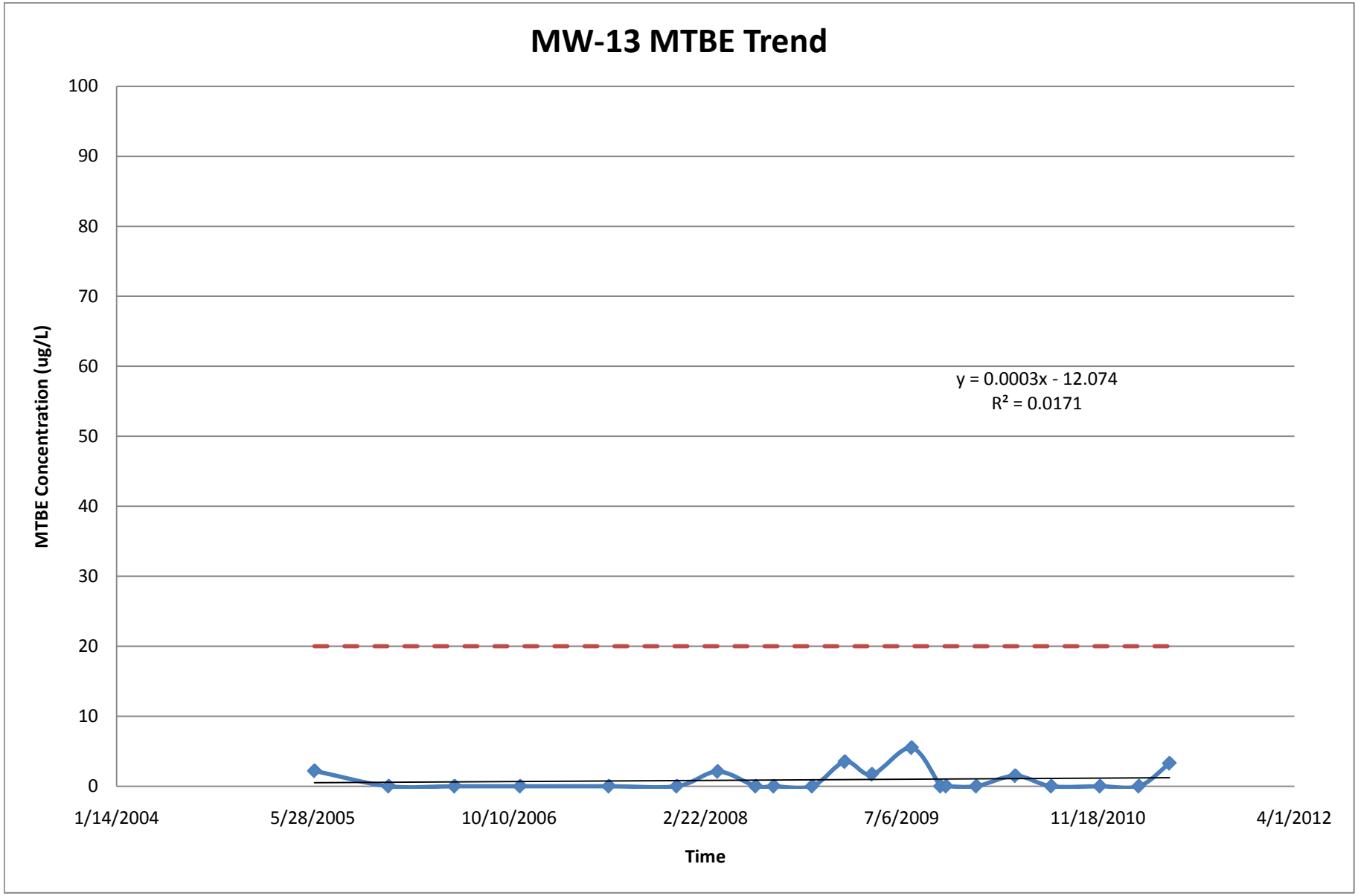
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



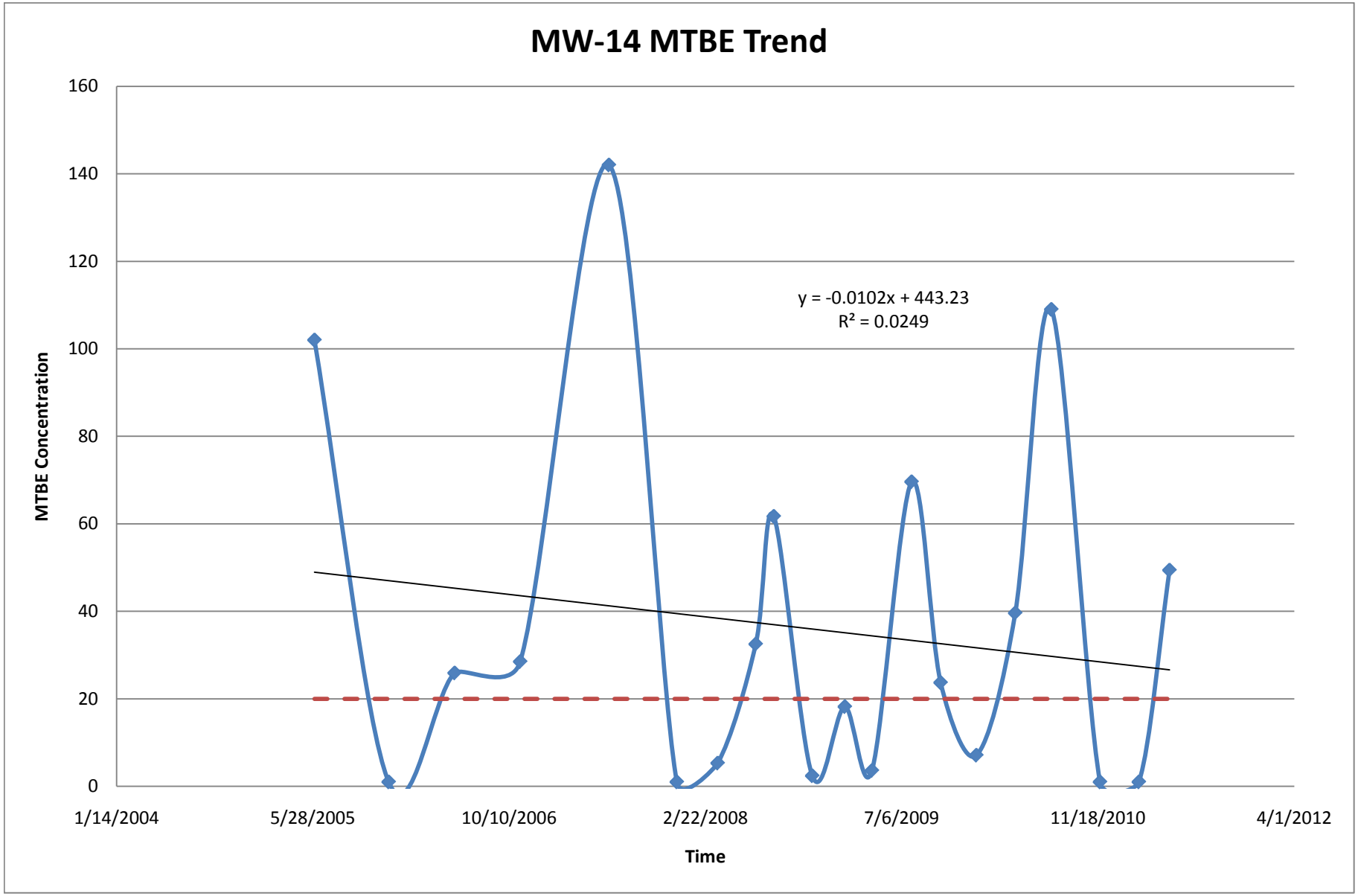
Appendix C
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



Appendix C
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



Appendix C
Trend Plots
Exxon Service Station #14489
285 Old Bayview Drive
North East, Maryland



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Appendix D

MSDS Sheets

MATERIAL SAFETY DATA SHEET

Klozür™

MSDS Ref. No.: 7775-27-1-12
Date Approved: 02/22/2005
Revision No.: 1

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS) and, the EC Directive, 2001/58/EC.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	Klozür™
SYNONYMS:	Sodium Persulfate, Sodium Peroxydisulfate; Disodium Peroxydisulfate
GENERAL USE:	In situ and ex situ chemical oxidation of contaminants and compounds of concern for environmental remediation applications.

MANUFACTURER

FMC CORPORATION
Active Oxidants Division
1735 Market Street
Philadelphia, PA 19103
(215) 299-6000 (General Information)

EMERGENCY TELEPHONE NUMBERS

(800) 424-9300 (CHEMTREC - U.S.)
(303) 595-9048 (Medical - Call Collect)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- White, odorless, crystals
- Oxidizer.
- Decomposes in storage under conditions of moisture (water/water vapor) and/or excessive heat causing release of oxides of sulfur and oxygen that supports combustion. Decomposition could form a high temperature melt. See Section 10 ("Stability and Reactivity").

POTENTIAL HEALTH EFFECTS: Airborne persulfate dust may be irritating to eyes, nose, lungs, throat and skin upon contact. Exposure to high levels of persulfate dust may cause difficulty in breathing in sensitive persons.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Sodium Persulfate	7775-27-1	>99	231-892-1	Not classified as hazardous

4. FIRST AID MEASURES

EYES: Flush with plenty of water. Get medical attention if irritation occurs and persists.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

NOTES TO MEDICAL DOCTOR: This product has low oral toxicity and is not irritating to the eyes and skin. Flooding of exposed areas with water is suggested, but gastric lavage or emesis induction for ingestions must consider possible aggravation of esophageal injury and the expected absence of system effects. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Deluge with water.

FIRE / EXPLOSION HAZARDS: Product is non-combustible. On decomposition releases oxygen which may intensify fire. Presence of water accelerates decomposition.

FIRE FIGHTING PROCEDURES: Do not use carbon dioxide or other gas filled fire extinguishers; they will have no effect on decomposing persulfates. Wear full protective clothing and self-contained breathing apparatus.

FLAMMABLE LIMITS: Non-combustible

SENSITIVITY TO IMPACT: No data available

SENSITIVITY TO STATIC DISCHARGE: Not available

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Spilled material should be collected and put in approved DOT container and isolated for disposal. Isolated material should be monitored for signs of decomposition (fuming/smoking). If spilled material is wet, dissolve with large quantity of water and dispose as a hazardous waste. All disposals should be carried out according to regulatory agencies procedures.

7. HANDLING AND STORAGE

HANDLING: Use adequate ventilation when transferring product from bags or drums. Wear respiratory protection if ventilation is inadequate or not available. Use eye and skin protection. Use clean plastic or stainless steel scoops only.

STORAGE: Store (unopened) in a cool, clean, dry place away from point sources of heat, e.g. radiant heaters or steam pipes. Use first in, first out storage system. Avoid contamination of opened product. In case of fire or decomposition (fuming/smoking) deluge with plenty of water to control decomposition. For storage, refer to NFPA Bulletin 430 on storage of liquid and solid oxidizing materials.

COMMENTS: VENTILATION: Provide mechanical general and/or local exhaust ventilation to prevent release of dust into work environment. Spills should be collected into suitable containers to prevent dispersion into the air.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	ACGIH	OSHA	Supplier
Sodium Persulfate	0.1 mg/m^3 (TWA)		

ENGINEERING CONTROLS: Provide mechanical local general room ventilation to prevent release of dust into the work environment. Remove contaminated clothing immediately and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use cup type chemical goggles. Full face shield may be used.

RESPIRATORY: Use approved dust respirator when airborne dust is expected.

PROTECTIVE CLOTHING: Normal work clothes. Rubber or neoprene footwear.

GLOVES: Rubber or neoprene gloves. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	None
APPEARANCE:	White crystals
AUTOIGNITION TEMPERATURE:	Not applicable. No evidence of combustion up to 800°C. Decomposition will occur upon heating.
BOILING POINT:	Not applicable
COEFFICIENT OF OIL / WATER:	Not applicable
DENSITY / WEIGHT PER VOLUME:	Not available
EVAPORATION RATE:	Not applicable (Butyl Acetate = 1)
FLASH POINT:	Non-combustible
MELTING POINT:	Decomposes
ODOR THRESHOLD:	Not applicable
OXIDIZING PROPERTIES:	Oxidizer
PERCENT VOLATILE:	Not applicable
pH:	typically 5.0 - 7.0 @ 25 °C (1% solution)
SOLUBILITY IN WATER:	73 % @ 25 °C (by wt.)
SPECIFIC GRAVITY:	2.6 (H_2O=1)
VAPOR DENSITY:	Not applicable (Air = 1)
VAPOR PRESSURE:	Not applicable

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Heat, moisture and contamination.
STABILITY:	Stable (becomes unstable in presence of heat, moisture and/or contamination).
POLYMERIZATION:	Will not occur
INCOMPATIBLE MATERIALS:	Acids, alkalis, halides (fluorides, chlorides, bromides and iodides), combustible materials, most metals and heavy metals, oxidizable materials, other oxidizers, reducing agents, cleaners, and organic or carbon containing compounds. Contact

with incompatible materials can result in a material decomposition or other uncontrolled reactions.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen that supports combustion and oxides of sulfur.

COMMENTS: PRECAUTIONARY STATEMENT: Pumping and transport of Klozür persulfate requires appropriate precautions and design considerations for pressure and thermal relief.

Decomposing persulfates will evolve large volumes of gas and/or vapor, can accelerate exponentially with heat generation, and create significant and hazardous pressures if contained and not properly controlled or mitigated.

Use with alcohols in the presence of water has been demonstrated to generate conditions that require rigorous adherence to process safety methods and standards to prevent escalation to an uncontrolled reaction.

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11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Non-irritating (rabbit) [FMC Study Number: ICG/T-79.029]

SKIN EFFECTS: Non-irritating (rabbit) [FMC Study Number: ICG/T-79.029]

DERMAL LD_{50}: > 10 g/kg [FMC Study Number: ICG/T-79.029]

ORAL LD_{50}: 895 mg/kg (rat) [FMC Study Number: ICG/T-79.029]

INHALATION LC_{50}: 5.1 mg/l (rat) [FMC I95-2017]

SENSITIZATION: May be sensitizing to allergic persons. [FMC Study Number: ICG/T-79.029]

TARGET ORGANS: Eyes, skin, respiratory passages

ACUTE EFFECTS FROM OVEREXPOSURE: Dust may be harmful and irritating. May be harmful if swallowed.

CHRONIC EFFECTS FROM OVEREXPOSURE: Sensitive persons may develop dermatitis and asthma [Respiration 38:144, 1979]. Groups of male and female rats were fed 0, 300 or 3000 ppm sodium persulfate in the diet for 13 weeks, followed by 5000 ppm for 5 weeks. Microscopic examination of tissues revealed some injury to the gastrointestinal tract at the high dose (3000 ppm) only. This effect is not unexpected for an oxidizer at high concentrations. [Ref. FMC I90-1151, Toxicologist 1:149, 1981].

CARCINOGENICITY:

NTP:	Not listed
IARC:	Not listed
OSHA:	Not listed
OTHER:	ACGIH: Not listed

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

Bluegill sunfish, 96-hour LC_{50} = 771 mg/L [FMC Study I92-1250]
Rainbow trout, 96-hour LC_{50} = 163 mg/L [FMC Study I92-1251]
Daphnia, 48-hour LC_{50} = 133 mg/L [FMC Study I92-1252]
Grass shrimp, 96-hour LC_{50} = 519 mg/L [FMC Study I92-1253]

CHEMICAL FATE INFORMATION: Biodegradability does not apply to inorganic substances.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose as a hazardous waste in accordance with local, state and federal regulatory agencies.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PROPER SHIPPING NAME:	Sodium Persulfate
PRIMARY HAZARD CLASS / DIVISION:	5.1 (Oxidizer)
UN/NA NUMBER:	UN 1505
PACKING GROUP:	III
LABEL(S):	5.1 (Oxidizer)
PLACARD(S):	5.1 (Oxidizer)
MARKING(S):	Sodium Persulfate, UN 1505
ADDITIONAL INFORMATION:	Hazardous Substance/RQ: Not applicable

49 STCC Number: 4918733

This material is shipped in 225 lb. fiber drums, 55 lb. poly bags and 1000 - 2200 lb. IBC's (supersacks).

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

PROPER SHIPPING NAME: Sodium Persulfate

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) / INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

PROPER SHIPPING NAME: Sodium Persulfate

OTHER INFORMATION:

Protect from physical damage. Do not store near acids, moisture or heat.

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15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):
Not applicable

SECTION 311 HAZARD CATEGORIES (40 CFR 370):
Fire Hazard, Immediate (Acute) Health Hazard

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):
The Threshold Planning Quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.:
None

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):
Not listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):
Unlisted, RQ = 100 lbs., Ignitability

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA INVENTORY STATUS (40 CFR 710):

Listed

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)
RCRA IDENTIFICATION OF HAZARDOUS WASTE (40 CFR 261):
Waste Number: D001

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Product Identification Number: 1505
Hazard Classification / Division: Class C (Oxidizer), Class D, Div. 2, Subdiv. B. (Toxic)
Ingredient Disclosure List: Listed

INTERNATIONAL LISTINGS

Sodium persulfate:
Australia (AICS): Listed
China: Listed
Japan (ENCS): (1)-1131
Korea: KE-12369
Philippines (PICCS): Listed

HAZARD, RISK AND SAFETY PHRASE DESCRIPTIONS:

EC Symbols: (Not classified as hazardous)

EC Risk Phrases: (Not classified as hazardous)

EC Safety Phrases: (Not classified as hazardous)

16. OTHER INFORMATION

HMIS

Health	1
Flammability	0
Physical Hazard	1
Personal Protection (PPE)	J

Protection = J (Safety goggles, gloves, apron & combination dust & vapor respirator)

HMIS = Hazardous Materials Identification System

Degree of Hazard Code:
4 = Severe

3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

NFPA

Health	1
Flammability	0
Reactivity	1
Special	OX

SPECIAL = OX (Oxidizer)

NFPA = National Fire Protection Association

Degree of Hazard Code:
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

REVISION SUMMARY:
New MSDS

Klozür and FMC Logo - FMC Trademarks

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable where such product is used in combination with any other materials or in any process. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC Corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

Material Safety Data Sheet
Iron(II) sulfate heptahydrate

ACC# 09870

Section 1 - Chemical Product and Company Identification

MSDS Name: Iron(II) sulfate heptahydrate
Catalog Numbers: I146-10, I146-3, I146-3LC, I146-500, I146-500LC, I149-3
Synonyms: Green vitrol; Ferrous sulfate heptahydrate; Iron protosulfate.
Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7782-63-0	Iron(II) sulfate heptahydrate	>99	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: blue-green solid.
Warning! Harmful if swallowed. Causes eye and skin irritation. May cause respiratory tract irritation.
Target Organs: Blood, kidneys, central nervous system, liver, gastrointestinal system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. May cause nausea and vomiting.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: May cause liver and kidney damage. Adverse reproductive effects have been reported in animals. Laboratory experiments have resulted in mutagenic effects. Chronic exposure may cause blood effects. Exposure to high concentrations may cause central nervous system depression. Animal studies have reported the development of tumors. Oral doses of 960 mg/kg given intermittently over a 9 week period produced jaundice in

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.
Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 1

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.
Storage: Store in a cool, dry place. Store in a tightly closed container. Store under an inert atmosphere.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Iron(II) sulfate	1 mg/m3 TWA (as Fe) (listed under Iron salts	1 mg/m3 TWA (as Fe) (listed under Iron salts	none listed

heptahydrate	(soluble)).	(soluble)).	
Ferrous sulfate anhydrous	1 mg/m3 TWA (as Fe) (listed under Iron salts (soluble)).	1 mg/m3 TWA (as Fe) (listed under Iron salts (soluble)).	none listed

OSHA Vacated PELs: Iron(II) sulfate heptahydrate: No OSHA Vacated PELs are listed for this chemical. Ferrous sulfate anhydrous: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: blue-green
Odor: odorless
pH: 3-5 (5% aq. sol.)
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: 300 deg C
Freezing/Melting Point:64 deg C
Decomposition Temperature:> 300 deg C
Solubility: 48.6g/100g water at 50C
Specific Gravity/Density:1.898
Molecular Formula: FeSO4.7H2O
Molecular Weight:278.01

Section 10 - Stability and Reactivity

Chemical Stability: Air sensitive. Moisture sensitive.
Conditions to Avoid: Incompatible materials, dust generation, exposure to air, excess heat, exposure to moist air or water.
Incompatibilities with Other Materials: Strong oxidizing agents, strong bases.
Hazardous Decomposition Products: Oxides of sulfur, oxides of iron.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 7782-63-0: NO8510000

CAS# 7720-78-7: NO8500000
LD50/LC50:
CAS# 7782-63-0:
Oral, mouse: LD50 = 1520 mg/kg;
.

CAS# 7720-78-7:
Oral, mouse: LD50 = 680 mg/kg;
Oral, rat: LD50 = 319 mg/kg;
Oral, rat: LD50 = 533 mg/kg;
.

Carcinogenicity:
CAS# 7782-63-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7720-78-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: Tumorigenic effects have been reported in experimental animals.
Teratogenicity: Teratogenic effects have occurred in experimental animals.
Reproductive Effects: Adverse reproductive effects have occurred in experimental animals.
Mutagenicity: Mutagenic effects have occurred in humans.
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: No information available.
Physical: No information available.
Other: Do not empty into drains.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not Regulated	Not Regulated
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 7782-63-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 7720-78-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 7782-63-0: 1000 lb final RQ (listed under Ferrous sulfate); 454 kg final RQ (listed under F CAS# 7720-78-7: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 7782-63-0: immediate.

CAS # 7720-78-7: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

CAS# 7782-63-0 is listed as a Hazardous Substance under the CWA. CAS# 7720-78-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7782-63-0 can be found on the following state right to know lists: California, (listed as Iron salts (soluble)), Pennsylvania, Minnesota, (listed as Iron salts (soluble)), Massachusetts.

CAS# 7720-78-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, (listed as Iron salts (soluble)), Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN

Risk Phrases:

R 22 Harmful if swallowed.

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 46 If swallowed, seek medical advice immediately and show this con tainer or label.

WGK (Water Danger/Protection)

CAS# 7782-63-0: No information available.
CAS# 7720-78-7: 1

Canada - DSL/NDSL

CAS# 7720-78-7 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 7782-63-0 (listed as Iron salts (soluble)) is listed on the Canadian Ingredient Disclosure List.

CAS# 7720-78-7 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 12/04/1997
Revision #8 Date: 3/04/2008