

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Land Management Administration • Oil Control Program

Wally's Citgo Groundwater Investigation 19200 Middletown Road, Parkton Baltimore County, Maryland MDE-Oil Control Program Case No. 2006-0319-BA

The Maryland Department of the Environment (MDE), Oil Control Program (OCP), has an open case on the impact of petroleum hydrocarbons, specifically methyl tertiary-butyl ether (MTBE) at Wally's Citgo and select off-site drinking water wells in the vicinity. This active facility is located on a groundwater divide and is underlain by geology known as the Pretty Boy Schist of the Wissahickon Group. Currently, there are three on-site drinking water supply wells serving businesses at 19200 Middleton Road; and a monitoring well network of 23 wells. Depth to groundwater is approximately 33.5 to 52 feet, and depth to competent bedrock ranges between 30 and 33 feet. Groundwater flow conditions in the shallow weathered overburden and bedrock are controlled primarily by lineaments.

MTBE is a fuel additive commonly used to reduce carbon monoxide and ozone levels caused by auto emissions. There is no national regulatory standard for MTBE in drinking water. In 1997, the U.S. Environmental Protection Agency (EPA) issued an advisory for MTBE based on taste and odor of 20 to 40 parts per billion (ppb). Although the EPA has not established a regulated Maximum Contaminant Level (MCL) for MTBE, the State of Maryland adopted an action level of 20 ppb.

In October 2005, MDE became aware of this environmental problem at Wally's Citgo upon receiving groundwater sampling results from three newly installed monitoring wells located near the underground storage tank (UST) system. Monitoring wells were installed in August 2005 to satisfy the State's new Emergency Regulations that went into effect in January 2005 for regulated gasoline UST systems located in high-risk groundwater use areas. The station's drinking water supply well was sampled in September 2005; no petroleum constituents were detected above regulatory levels.

Wally's Citgo is an active service station that currently operates three double-walled steel USTs: a 12,000-gallon gasoline; a 10,000-gallon diesel; and an 8,000-gallon gasoline. These tanks were installed in February 2008 and are currently registered to Carroll Independent Fuel Company (CIFCO). In January 2008, the three original USTs installed in 1990 were removed. Soils in the tank field were over-excavated for proper disposal off-site. A 2,000-gallon diesel aboveground storage tank (AST) with underground single-walled, fiberglass-reinforced plastic piping is also in operation at this facility. Based on the presence of petroleum contaminants in the station's monitoring well network and pursuant to Section 4-411.2 of the Environment Article, Annotated Code of Maryland, the MDE issued a directive letter to CIFCO and notified Baltimore County of petroleum impacts from this site, located in a high-risk groundwater use area.

As part of site investigation efforts, CIFCO and several private citizens sampled a total of 44 residential wells, located in close proximity to Wally's Citgo. Two of these residential homes (1606 and 1608 Rayville Road) had concentrations of MTBE at 2,670 ppb and 851 ppb, respectively. Both wells exceeded the State's action level of 20 ppb. Therefore, on November 18, 2005, both residential wells were fitted with a granular activated carbon (GAC) filtration system to eliminate petroleum constituents from the drinking water. In 2008, one additional residential well (1612 Rayville Road) was equipped with a GAC filtration system after the May 2008 sampling results detected MTBE at 26 ppb. All other residential wells sampled were either non-detect or below regulatory levels. At this time, the MDE-OCP does not anticipate expanding off-site residential sampling beyond sampling needed to fill in data gaps.

■ 44 residential wells have been sampled to date

- 25 wells - No detectable levels of MTBE
- 15 wells - Detectable levels of MTBE below 5 ppb
- 1 wells - Detectable levels of MTBE between 5 and 10 ppb
- 3 wells - MTBE detected above 20 ppb. GAC systems installed.

Chronology:

- October 11, 2005. MDE-OCP received from CIFCO the *Final Emergency Regulations Installation of Three Monitoring Wells and Groundwater Sampling - 10/04/2005* report.
 - Three monitoring wells installed 07/25 - 08/09/2005.
 - Wells drilled to 62 feet. Depth to bedrock 32 to 34 feet.
 - Groundwater sampling event - 09/12/2005.
 - MW1 benzene at 3 ppb; MTBE at 7 ppb;
 - MW2 benzene at 4 ppb; MTBE at 7 ppb;
 - MW3 benzene at 110 ppb; MTBE at 17,000 ppb;
 - Station's supply well: MTBE at 0.5 ppb (*estimated value*)
- October 18, 2005. MDE-OCP issued directive letter to CIFCO requiring the following:
 - Perform a helium UST test to check for vapor leak of the gasoline USTs;
 - Test all spill catchment basins and containment sumps;
 - Conduct self audit of UST system;
 - Conduct semi-annual sampling of all monitoring wells and tank field monitoring pipes;
 - Conduct semi-annual sampling of the transient/non-transient drinking water supply well on-site;
 - Perform a half-mile well survey.
- October 18, 2005. MDE-OCP notified BADEPRM of this new petroleum impact pursuant to Section 4-411.2 of the Environment Article, Annotated Code of Maryland for regulated facility in a high-risk groundwater use area.
- October 31, 2005. Notification letters mailed to residents within half-mile radius of the station by BADPERM.
- November 7, 2005. MDE-OCP received fax proposal for installation of 3 to 4 additional monitoring wells. Notified by environmental consultant that neighboring properties to the station were sampled by CIFCO and a second groundwater sample from the on-site monitoring well confirmed the dissolved levels observed in September 2005. MDE approved, via e-mail, the proposed monitoring well installations. Wells scheduled to be installed on November 9, 2005.
- November 8, 2005. MDE received faxed results of CIFCO's testing results and drinking water sampling results from BADPERM for residences sampled in the immediate vicinity of the station.
 - UST line testing and helium testing - passed.
 - Drinking water wells sampled - November 3, 2005:
 - 17 private drinking wells sampled. Two homes were found to be above regulatory levels
 - 1606 Rayville Road * MTBE at 2,670 ppb
 - 1608 Rayville Road * MTBE at 851 ppb; tertiary amyl methyl ether (*TAME-an unregulated compound*) at 22 ppb; tertiary butyl alcohol (*TBA-an unregulated compound*) at 18 ppb; and di-isopropyl ether (*DIPE- an unregulated compound*) at 4.4 ppb.
- November 10, 2005. Meeting between MDE, BADEPRM, and CIFCO to discuss data results and future course of action. MDE required CIFCO to complete the following tasks:
 - Immediately install GAC systems on the two residences with MTBE greater than 20 ppb (1606 and 1608 Rayville Road).
 - Prepare a *Work Plan* to install a soil vapor extraction (SVE) system on the tank field area as an interim corrective action to mitigate high MTBE levels while the problem is being delineated.
- November 14, 2005. MDE met with CIFCO representatives and the two impacted property owners (1606 and 1608 Rayville Road) to discuss the pending installation of GAC systems on their drinking water wells. Confirmation drinking water samples were also collected by CIFCO from these homes.

- November 18, 2005. MDE-OCP site visit to observe the installation of GAC systems on the two impacted residential homes. The MDE also received verbal confirmation from CIFCO that the drinking water well at 9124 Middleton Road was clean.
- November 22, 2005. MDE received faxed results of CIFCO's testing results and drinking water sampling results from BADPERM for residences sampled in the immediate vicinity of the station.
 - Drinking water wells sampled November 8-15, 2005:
 - 11 additional private drinking wells sampled.
 - The two homes with exceedances of petroleum constituents above regulatory levels were also resampled.
- December 1, 2005. MDE received *Activities to be Completed Regarding MD Emergency Regulations* from CIFCO. Report was in response to MDE directive letter dated October 18, 2005. A well receptor survey was conducted and found 49 drinking water wells within a half-mile radius of the site. An aerial map was submitted depicting each affected site. The UST system test results were submitted, all tests passed with the exception of the kerosene and diesel sumps.
- December 5, 2005. MDE-OCP conducted a compliance assistance inspection at the station.
- December 12, 2005. A *Soil Vapor Extraction – December 9, 2005 Work Plan* submitted by CIFCO's environmental consultant. Pilot test proposed to extract soil gas vapors from the tank field. SVE is a technique used to remove vapors from soils by introducing ambient air and oxygen in the tankfield to capture and monitor air flow to optimize conditions for mass removal rates of vapors.
- December 12, 2005. MDE-OCP received *Activities to be Completed Regarding MD Emergency Regulations – 11/29/2005*. Well receptor survey results. UST system testing results completed. Minor repairs conducted on the UST system.
- December 19, 2005. MDE approved the *Work Plan* to conduct a one-day SVE pilot test.
- December 30, 2005. MDE-OCP sent a site update letter to area residents.
- February 14, 2006. MDE-OCP received the analytical results from well water samples collected from local residences.
- March 8, 2006. MDE conducted a meeting with CIFCO and their consultant. A summary of site activities and analytical data was submitted and additional action items were discussed. Action items included conducting a soil boring investigation, installation of additional monitoring wells, domestic well sampling at selected properties, and installation of the soil vapor abatement system in the UST field.
- March 14, 2006. *Environmental Site Assessment Report - March 14, 2006* submitted to MDE for review.
- May 2, 2006. MDE received analytical data of domestic wells sampled in March 2006. Seven residences were re-sampled and two additional residences were sampled. Results of the drinking water wells tested were below the Department's regulatory levels, with exception of the two homeowners that have been supplied with GAC systems (1606 and 1608 Rayville Road).
- May 2, 2006. MDE-OCP response letter to CIFCO on the *Environmental Site Assessment Report - March 14, 2006*. The letter summarized next action items to be performed as discussed at the March 8, 2006 meeting.
- May 9, 2006. MDE-OCP received the *Well Water Sampling* analytical results - May 4, 2006.
- June 2006. *Environmental Report/Work Plan - June 1, 2006* submitted for MDE review.
 - Lineaments trend predominantly northeasterly.
 - Two supply wells are present on-site (one well is screened 38 to 460 feet deep and another well is of unknown depth). Both wells are pumped into a linked underground holding tank that is vaulted.

- Tank field SVE system is expected to be installed in Summer 2006
 - Due to auger refusal, only 7 soil samples were collected from 11 boring locations at variable depths. Only 2 locations had petroleum constituents above cleanup standards.
 - SB7 (10 - 11ft.) TPH/DRO at 1,700 parts per million (ppm); TPH/GRO at 4,900 ppm
 - SB11A (1-2 ft) TPH/DRO 3,500 ppm
 - *Work Plan* proposed the installation of five additional well locations (two deep wells to be drilled to 90 feet and three nested wells screened in the shallow and deep zones of the groundwater). Well selection based on lineament/fracture analysis.
- July 7, 2006. MDE-OCP approved CIFCO's *Work Plan - June 1, 2006* to install additional monitoring wells. Additional domestic well sampling required at:
 - 19214 Shandall Court;
 - 1614 Parsonage Road;
 - 19201 Shandall Court;
 - 19203 Shandall Court; and,
 - 19200 Shandall Court.
 - July 14, 2006. MDE-OCP received a proposal to conduct geophysical survey in the area of Wally's Citgo, specifically electric resistivity (ER) to locate potential saturated fractures for monitoring well placement.
 - July 21, 2006. MDE-OCP approved the geophysics proposal.
 - July 31, 2006. Geophysical investigation conducted on-site. MDE-OCP requested a *Revised Work Plan* for the installation of monitoring wells based on geophysical data.
 - August 8, 2006. MDE-OCP site visit. SVE system began operation in the tank field area. Monitoring of the system including airflow measurements, photo-ionization readings, and vacuum measurements will be collected monthly.
 - August 10, 2006. MDE-OCP received a *Revised Work Plan - June 1, 2006*. Report included the following:
 - Results of the geophysical survey
 - A new proposal to install seven additional monitoring wells; three shallow, three deep and an overburden well.
 - Additional down-hole geophysics proposed for each of these monitoring wells.
 - August 17, 2006. MDE-OCP approved of *Revised Work Plan - June 1, 2006*.
 - August 21, 2006. MDE-OCP on-site with CIFCO consultants to demarcate locations for monitoring wells.
 - Two residential properties identified for domestic well sampling (19119 Middletown Road and a possible house across from Wally's Citgo and Rayville Road). This may not have a separate well from the property at 19124 Middletown Road).
 - Four on-site drinking water wells located and identified for future sampling. CIFCO's consultant will arrange to have a plumber identify wells being used by the facility.
 - February 1, 2007. MDE-OCP received the *January 2007 Update Letter Report - January 31, 2007*
 - To date, SVE system has removed 600 pounds of vapor phase hydrocarbons.
 - Monitoring well sampling data submitted for events on 09/20/06 and 11/20/06 (*see Table for Results*).
 - Residential drinking water well sampling data submitted for events on 09/20/06 and 11/20/06 (*see Table for Results*).
 - An off-site private well sampling program implemented for select drinking water wells in the area.
 - February 7, 2007. MDE-OCP received the *Hydrogeologic Investigation Update Report and Work Plan - February 6, 2007*.
 - Seven additional monitoring wells installed on 08/30/06 on-site and off-site (MW3S, MW7A, MW7B, MW8A, MW8B, MW9A, MW9B)
 - Downhole geophysical studies were performed on MW7A, MW7B, MW8A, MW8B, MW9A, MW9B.

- Two main fracture sets were identified with southwest-northeast strikes with a shallow northwesterly dips
 - The main foliation set had a similar northeast-southwest strike with a shallow northwesterly dip
 - Vertical groundwater flow migration within open borehole bedrock wells was not observed.
 - Select wells were analyzed for geochemical ions.
 - A survey on the drinking water well construction in the area were also submitted.
 - A *Proposed Work Plan* was submitted for supplemental investigation
 - Abandonment of MW7B due to limited water yield
 - Modification of MW9B well construction to increase well yield.
 - Installation of three additional monitoring wells (MW7C, MW10A and MW10B)
 - Aquifer testing via 48-hour pump test on two of the proposed wells.
 - Downhole geophysical study of the proposed wells.
- March 21, 2007. MDE-OCP issued *Notice of Violation NV-2007-067* to CIFCO. This *Notice* required CIFCO to complete the following activities:
 1. Groundwater samples must be collected from all wells including deep wells 7B, 8B and 9B. Samples must be analyzed using EPA Methods 8260 and 8015B.
 2. Groundwater samples must be collected from the fracture zones identified in the hydrogeologic report.
 3. Submit a *Work Plan* to delineate the vertical extent of contamination.
 4. Extend the soil vapor extraction (SVE) system to include MW-3, MW-4 and MW-5.
 5. MDE approves the installation of MW-10A and MW-10B and performance of an aquifer test on MW-10A only.
 6. Use proper notation when showing strike and dip of fractures and foliations.
 - March 30, 2007. MDE-OCP received *Groundwater Sampling Work Plan - March 26, 2007*. Alliance scheduled a groundwater sampling event for April 3 and 4, 2007 in compliance with MDE's request of March 21, 2007.
 - April 10, 2007. MDE issued *RE: Notice of Violation NV-2007-067* to CIFCO.
 - MDE approved CIFCO's request for an extension contingent upon the following modifications:
 1. Groundwater samples must be collected from the fracture zones in monitoring wells MW7B, MW 8B and MW9B
 2. Submit revised *Corrective Action Plan* which expands SVE to include MW3, MW4, and MW5
 - May 3, 2007. MDE-OCP on-site to observe monitoring well "B" packing and sampling.
 - June 15, 2007. MDE-OCP received the *Hydrogeologic Investigation Update Report, Groundwater Delineation Work Plan and Soil Alternative Corrective Action Plan - June 15, 2007*, which included the following;
 - Installation of upper and lower bedrock monitoring wells 10A and 10B, with analytical sampling results.
 - Results of 72-hour aquifer pumping test.
 - Proposed the installation of seven additional monitoring wells, three in the upper bedrock and four in the lower bedrock.
 - Soil Alternative Corrective Action Plan proposed a soil boring investigation and SVE Pilot Study.
 - August 1, 2007. MDE-OCP received the *Pump Testing Report - July 30, 2007*, which included the following;
 - Pump tests occurred May 23 through June 4, 2007 on the upper bedrock aquifer.
 - A step-drawdown test, a 72-hour constant rate pump test, and a recovery test were all run during this time.
 - September 12, 2007. MDE-OCP received *August 17, 2007 - Conference Call Requests - September 10, 2007*. Per MDE's request, Environmental Alliance made the following corrections:
 - Reviewed and submitted a corrected version of Table 5-3 of the *Hydrogeologic Investigation Update Report and Work Plan*.
 - Submitted a color copy of the down-hole geophysical and Optical Televiewer logs for monitoring wells MW-7A through MW-9A and MW-7B through MW-9B.
 - Attached color copies of the pressure transducer data obtained during the packer testing event.
 - Submitted monitoring well construction tables, which show construction specifics for each monitoring well on-site.

- September 14, 2007. MDE-OCP received a copy of the *Quarterly Update Report - June through August 2007*.
 - Groundwater measurements from MW-7B, MW-8B, MW-9B, and MW-10B were used to construct a groundwater potentiometric surface map. This map indicates groundwater flow to the west-southwest.
 - Groundwater samples were collected and analyzed using EPA Methods 8260 and Method 8015.
 - The monitoring wells and drinking water supply wells were sampled (*See Table for Results*)

- November 2, 2007. MDE-OCP issued a *RE: Notice of Violation NV-2007-067* to CIFCO.
 - MDE reviewed the *Hydrogeologic Investigation Update Report and Work Plan - June 15, 2007* and the *Pump Testing Report - July 30, 2007* and approved the work outline based on the following modifications:
 1. i. Of the 7 monitoring wells to be installed, a cluster of wells is to be located behind the bait shop.
 - ii. The "B" Series wells may have to extend to 120 feet.
 - iii. Monitoring wells MW-7B and MW-9B may have to be reduced in depth from 242 to 120 feet.
 2. Sampling of the wells should occur at least 2 hours after well purging to allow for recharge.
 3. Soil bores may be taken continuously or in 5-foot intervals. All waste must be removed and disposed of properly. Implementation of SVE pilot testing will be re-evaluated after soil boring.
 4. Drinking water samples must be collected from the following properties and analyzed using EPA Method 524.2:
 - 19201, 19203, 19205, 19207, 19209, 19211, 19213, 19214, and 19215 Shandall Court
 - 19205, 19201 and 19124 Middletown Road

- November 6, 2007. MDE-OCP received an e-mail from Environmental Alliance stating that monitoring and potable well sampling will occur Thursday November 8, 2007.

- November 19, 2007. MDE-OCP received the *Soil Boring Work Plan Implementation Schedule - November 16, 2007*.

- December 5, 2007. MDE-OCP on-site to observe soil boring investigation.

- December 31, 2007. MDE-OCP received the *Soil Boring Investigation Results - December 2007*.
 - Soil borings SB-12 through SB-22 were installed to further determine the extent of the contamination.
 - A photo-ionization detector (PID) was used on each sample to detect the presence of contamination:

Non-detect to 0.2ppmv	SB-12, SB-16, SB-17, SB-18, SB-19, SB-20, SB-22
0.2 to 75 ppmv	SB-13 and SB-15
244 ppmv	SB-14
762 ppmv	SB-2
 - Data collected will be used to guide remediation activities and removal of the current UST system and installation of a new UST system scheduled for January 2008.

- January 8, 2008. MDE-OCP received e-mail from CIFCO containing a copy of a public notice which was sent to residents within a half-mile radius of the site.

- January 28, 2008. MDE-OCP received the *Quarterly Update Report - January 23, 2008*.
 - The groundwater and potable wells were sampled (*see Table for Results*)
 - Maximum concentration of MTBE reported was 81,000 ppb in MW-3.

- February 11, 2008. MDE-OCP site meeting to discuss the locations of future off-site monitoring wells. Resident at 19124 Middletown Road received a *Property Access Meeting for Groundwater Monitoring Investigation Activities - February 11, 2008* letter asking for permission to install two monitoring wells on the property.

- February 18, 2008. CIFCO submitted report to MDE-OCP confirming the site is located in a High Risk Groundwater Use Area.

- February 19, 2008. MDE-OCP received an e-mail listing the new equipment to be installed at the site.

- March 10, 2008. MDE-OCP received the *UST System Closure, UST System Installation and Soil Remediation Sampling Results Wally's Citgo - March 7, 2008*.
 - Report covered UST closure activities, removal, soil sampling, and over-excavation of tank field.
 - The new tank installation includes four observation wells, which can be used as soil vapor extraction points.
 - All analytical results for soil samples were below MDE Residential Cleanup Standards for Soil.
- May 2, 2008. MDE-OCP received the *Quarterly Update Report - April 28, 2008*.
 - The groundwater and potable wells were sampled (*see Table for Results*)
 - Maximum concentration of MTBE reported was 69,000 ppb in MW-3.
- July 28, 2008. MDE-OCP received *Quarterly Update Report - July 25, 2008*.
 - The groundwater and potable wells were sampled (*see Table for Results*)
 - Two additional off site monitoring wells (MW-11A and MW-11B) were installed in June 2008.
 - Maximum concentration of MTBE reported was 10,000 ppb in MW-7A.
- November 12, 2008. MDE-OCP received *Quarterly Update Report - November 5, 2008*.
 - The groundwater and potable wells were sampled (*see Table for Results*).
 - From June 23, through July 3, 2008 eight additional monitoring wells were installed.
 - Three wells (MW-11A, MW-13A, and MW-14A) were installed in the upper bedrock, with depths of 60 feet below ground surface (bgs).
 - Five wells (MW-5B, MW-11B, MW-12B, MW-13B, MW-14B) were installed into the lower bedrock, with total depths of 100 feet bgs.
 - Two deep bedrock wells (MW-7B and MW-9B) were reconstructed and the depths are now 120 feet bgs.
 - Maximum concentration of MTBE reported was 8,600 ppb in MW-3 (upper bedrock well).

Future Activities:

- At this time, the MDE-OCP does not anticipate expanding off-site residential sampling beyond filling in limited data gaps. However, CIFCO will conduct the following activities.
 - Quarterly sampling of the station's monitoring well network.
 - Monthly sampling of the two homes with GAC systems will continue at no expense to homeowners (1606 and 1608 Rayville Rd.). In addition, 1612 Rayville well is being sampled on a monthly basis.

Future Updates:

- Future updates on this case investigation will be posted at www.mde.state.md.us [at the MDE home page, (select) Land, (select) Program, (select) Oil Control, (select) Remediation Sites].

Contacts:

- MDE - Oil Control Program: 410-537-3443
- Baltimore County Department of Environmental Protection and Resource Management: 410-887-2762

Other Related Cases

- Historically, there are two closed MDE cases related to this site.
 - *Case No. 2005-0537-BA2*. Case was opened upon receipt of an *Incident Report – 10/21/2004*. Customer drove off with a dispenser hose and caused a gasoline release near a dispenser. The spill ran off the lot and into a storm drain at 19205 Middletown Road. The gasoline was cleaned-up by the Fire Department and CIFCO. Dispenser hose was repaired. Case was closed on June 8, 2005.
 - *Case No. 98-1371-BA2*. Case was opened in January 1998 during retrofit of UST system. A “Notice of Compliance” was issued in March 1998 based on the upgrade and retrofit of the UST system and no observance of subsurface contamination in the shallow soils during the MDE-OCP site inspection during system upgrade.

Disclaimer:

The intent of this fact sheet is to provide the reader a summary of site events as they are contained within documents available to MDE. To fully understand the site and surrounding environmental conditions, MDE recommends that the

reader review the case file that is available at MDE through the Public Information Act. The inclusion of a person or company's name within this fact sheet is for informational purposes only and should not be considered a conclusion by MDE on guilt, involvement in a wrongful act, or contribution to environmental damage.

Wally's Citgo Monitoring Well Network Sampling Results

Well #	Sampling Events	MTBE	Other Petroleum Constituents	
		State's Action Level 20 ppb	Benzene - MCL 5 ppb; Ethylbenzene - MCL 700 ppb; Toluene - MCL 1,000 ppb; Tertiary butyl Alcohol (TBA) unregulated compound TPH/DRO and TPH/GRO - 47 ppb	
MW-1 Installed 08/2005 Total well depth 62 ft; Screened 37 to 62 ft Depth to bedrock 33 ft 2 inch diameter well	12/2005	13 ppb	---	
	01/2006	3J ppb	---	
	05/2006	3J ppb	---	
	09/20/06	4J ppb	TPH-DRO -360 ppb; TPH-GRO - 900 ppb	
	11/02/06	6 ppb	TPH-DRO -2800 ppb; TPH-GRO - 360 ppb	
	04/24/07	ND	TPH-DRO--220 ppb; TPH-GRO--ND	
	08/08/07	0.9J ppb	TPH-DRO -280ppb; TPH-GRO - 110pb	
	11/07/07	22 ppb	TPH-DRO -12000 ppb; TPH-GRO - 300 ppb	
	02/21/08	61 ppb	TPH-DRO -260 ppb; TPH-GRO - 120 ppb	
MW-2 Installed 08/2005 Total well depth 62 ft Screened 40 to 60 ft Depth to bedrock 34 ft 2 inch diameter well	05/14/08	6 ppb	TPH-DRO--360 ppb; TPH-GRO--ND	
	12/2005	5J ppb	--	
	01/2006	3J ppb	---	
	05/2006	2J ppb	---	
	09/20/06	3J ppb	TPH-DRO -240 ppb; TPH-GRO - 800 ppb	
	11/02/06	2J ppb	TPH-DRO -290 ppb; TPH-GRO - 580 ppb	
	04/24/07	0.7J ppb	TPH-DRO-1700 ppb; TPH-GRO-36J ppb	
	08/08/07	1J ppb	TPH-DRO -ND; TPH-GRO - 120 ppb	
	11/07/07	2J ppb	TPH-DRO -ND; TPH-GRO - 130 ppb	
MW-3 Installed 08/2005 Total well depth 62 ft Screened 42 to 62 ft Depth to bedrock 32 ft 2 inch diameter well	02/21/08	ND	TPH-DRO--190 ppb	
	05/14/08	ND	TPH-DRO--370 ppb; TPH-GRO--ND	
	12/2005	630 ppb	Benzene - 20 ppb	
	01/2006	190 ppb	Benzene - 18 ppb	
	05/2006	15000 ppb	Benzene - 100 ppb	
	09/20/06	270 ppb	Benzene - 17 ppb; TPH-DRO -990 ppb; TPH-GRO - 3400 ppb	
	11/02/06	6500 ppb	Benzene - 16J ppb; TBA - 2900 ppb; TPH-DRO -1300 ppb; TPH-GRO - 12000 ppb	
	04/24/07	29000 ppb	TPH-DRO-2400 ppb; TPH-GRO-36000 ppb	
	08/08/07	26000 ppb	TPH-DRO -1300 ppb; TPH-GRO - 34000 ppb	
MW-3S Installed 08/2006 Total well depth 30 ft Screened 5 to 30 ft Depth to bedrock 28 ft 2 inch diameter well	11/07/07	81000 ppb	TPH-DRO -1700 ppb; TPH-GRO - 87000 ppb	
	02/21/08	69000 ppb	TPH-DRO -2500 ppb; TPH-GRO - 89000 ppb	
	05/14/08	1800 ppb	TPH-DRO--600 ppb; TPH-GRO--1600 ppb	
	09/20/06	Well Dry	Well Dry	
	11/02/06	Well Dry	Well Dry	
	04/24/07	Well Dry	Well Dry	
	01/23/08	Well Abandoned	---	
	MW-4 Installed 11/2005 Total well depth 61 ft Screened 40 to 60 ft Depth to bedrock 26 ft 2 inch diameter well	09/20/06	2700 ppb	Benzene - 76 ppb; TPH-GRO - 5500 ppb; TPH-DRO - 670 ppb
		11/02/06	5800 ppb	Benzene - 55 ppb; TPH-DRO -1200 ppb; TPH-GRO - 10000 ppb
04/24/07		780 ppb	TPH-DRO- 340 ppb; TPH-GRO- 1400 ppb	
08/08/07		230 ppb	TPH-DRO -ND; TPH-GRO - 380 ppb	
11/07/07		970 ppb	TPH-DRO -180 ppb; TPH-GRO - 1300 ppb	
02/21/08		2600 ppb	TPH-DRO -430 ppb; TPH-GRO - 3700 ppb	
05/14/08		140 ppb	TPH-DRO--64J ppb; TPH-GRO--85 ppb	
MW-5 Installed 11/2005 Total well depth 51 ft Screened 30.5 to 50.5 ft Depth to bedrock 18 ft 2 inch diameter well		12/2005	2800 ppb	Benzene - 210 ppb; Toluene - 4000 ppb; Ethylbenzene - 1000 ppb
		01/2006	3300 ppb	Benzene - 210 ppb; Toluene - 4700 ppb; Ethylbenzene - 950 ppb
	05/2006	900 ppb	Benzene - 150 ppb	
	09/20/06	1800 ppb	Benzene - 170 ppb; Toluene - 1900 ppb; TBA - 48000 ppb; TPH-GRO - 31000 ppb; TPH-DRO - 49000 ppb	
	11/02/06	1000 ppb	Benzene - 34 ppb; TBA - 18000 ppb; TPH-GRO - 5900 ppb; TPH-DRO - 19000 ppb	
	04/24/07	37 ppb	Benzene- 6 ppb; TPH-DRO- 1300 ppb; TPH-GRO- 1500 ppb	
	08/08/07	63 ppb	Benzene- 6 ppb; TPH-DRO- 4600 ppb; TPH-GRO- 1500 ppb	
	11/07/07	100 ppb	Benzene- 6 ppb; TPH-DRO- 3300 ppb; TPH-GRO- 540 ppb	
	02/21/08	31 ppb	Benzene- 3J ppb; TPH-DRO -3700 ppb; TPH-GRO - 1200 ppb	
MW-6 Installed 11/2005 Total well depth 62 ft Screened 40.5 to 60.5 ft Depth to bedrock 24 ft	05/15/08	12 ppb	TPH-DRO--3800 ppb; TPH-GRO--710 ppb	
	01/2006	ND	---	
	05/2006	0.5J ppb	---	
	09/20/06	1J ppb	---	
	11/02/06	ND	---	
	04/23/07	0.8J ppb	TPH-DRO- 430 ppb; TPH-GRO- ND	

Wally's Citgo Monitoring Well Network Sampling Results

Well #	Sampling Events	MTBE State's Action Level 20 ppb	Other Petroleum Constituents
			Benzene - MCL 5 ppb; Ethylbenzene - MCL 700 ppb; Toluene - MCL 1,000 ppb; Tertiary butyl Alcohol (TBA) unregulated compound TPH/DRO and TPH/GRO - 47 ppb
2 inch diameter well	08/08/07	ND	ND
	11/07/07	0.5J ppb	TPH-DRO- 49J ppb; TPH-GRO- ND
	02/21/08	0.7J ppb	TPH-DRO- 89J ppb
	05/14/08	0.8J ppb	TPH-DRO—55J ppb; TPH-GRO—ND
MW-7A Installed 08/2006 Total well depth 65 ft Screened 40 to 65 ft Depth to bedrock 37 ft 6 inch diameter well Open borehole	09/20/06	9500 ppb	Benzene – 9 ppb; TBA – 3200 ppb; TPH-DRO – 650 ppb; TPH-GRO – 16000 ppb
	11/02/06	15000 ppb	Benzene – 33 ppb; TBA – 4100 ppb; TPH-DRO – 690 ppb; TPH-GRO – 21000 ppb
	04/24/07	6900 ppb	TPH-DRO- 510 ppb; TPH-GRO- 8900 ppb
	08/09/07	8500 ppb	Benzene – 8J ppb; TBA – 1800 ppb; TPH-DRO – 260 ppb; TPH-GRO – 11000 ppb
	11/08/07	15000 ppb	Benzene – 15J ppb; TBA – 4100 ppb; TPH-DRO – 760 ppb; TPH-GRO – 19000 ppb
	02/21/08	18000 ppb	Benzene – 18J ppb; TBA – 5800 ppb; TPH-DRO – 850 ppb; TPH-GRO – 23000 ppb
	05/15/08	10000 ppb	Benzene – 5J ppb; TBA – 3000 ppb; TPH-DRO – 460 ppb; TPH-GRO – 7400 ppb
MW-7B Installed 08/2006 Total well depth 242 ft Depth to bedrock 30 ft Screened 70 to 242 ft 6 inch diameter well Open borehole	09/20/06	Not sampled	Not sampled
	11/02/06	Not sampled	Not sampled
	04/24/07	Not sampled	Not sampled
	05/02/07	3400 ppb	TPH-DRO- 190 ppb; TPH-GRO- 5300 ppb
	08/09/07	2200 ppb	TPH-DRO- 480 ppb; TPH-GRO- 3000 ppb
	11/08/07	1400 ppb	TPH-DRO- 550 ppb; TPH-GRO- 1900 ppb
	02/21/08	1100 ppb	TPH-DRO- 500 ppb; TPH-GRO- 1700 ppb
	05/15/08	1100 ppb	TPH-DRO- 390 ppb; TPH-GRO- 890 ppb
MW-8A Installed 08/2006 Total well depth 65 ft Screened 40 to 65 ft Depth to bedrock 48 ft 6 inch diameter well Open borehole	09/20/06	7 ppb	--
	11/02/06	5J ppb	--
	04/24/07	4J ppb	TPH-DRO- 210 ppb; TPH-GRO- ND
	08/09/07	0.9J ppb	TPH-DRO- 1800 ppb; TPH-GRO- ND
	11/08/07	4J ppb	TPH-DRO- 340 ppb; TPH-GRO- ND
	02/21/08	3J ppb	TPH-DRO- 330 ppb; TPH-GRO- ND
	05/14/08	3J ppb	TPH-DRO- 280 ppb; TPH-GRO- ND
MW-8B Installed 08/2006 Total well depth 100 ft Depth to bedrock 48 ft Screened 73.5 to 100 ft 6 inch diameter well; Open borehole	09/20/06	Not sampled	Not sampled
	11/02/06	Not sampled	Not sampled
	04/24/07	Not sampled	Not sampled
	05/03/07	3J ppb	TPH-DRO- 190 ppb; TPH-GRO- ND
	08/09/07	1J ppb	TPH-DRO- 630 ppb; TPH-GRO- 26J ppb
	11/08/07	2J ppb	TPH-DRO- 200 ppb; TPH-GRO- 21J ppb
	02/21/08	1J ppb	TPH-DRO- 460 ppb; TPH-GRO- 21J ppb
MW-9A Installed 08/2006 Total well depth 65 ft Screened 40 to 65 ft Depth to bedrock 33 ft 6 inch diameter well; Open borehole	09/20/06	1J ppb	---
	11/02/06	ND	---
	05/01/07	ND	TPH-DR 380 ppb; TPH-GRO- ND
	08/09/07	ND	TPH-DRO- 970 ppb; TPH-GRO- ND
	11/08/07	ND	TPH-DRO- 520 ppb; TPH-GRO- ND
	02/21/08	51 ppb	TPH-DRO- 120 ppb; TPH-GRO- 56 ppb
	05/15/08	ND	TPH-DRO- 140 ppb; TPH-GRO- ND
MW-9B Installed 08/2006 Total well depth 242 ft Depth to bedrock 33 ft Screened 72 to 242 ft 6 inch diameter well; Open borehole	09/20/06	Not sampled	Not sampled
	11/02/06	Not sampled	Not sampled
	04/23/07	Not sampled	Not sampled
	08/09/07	ND	TPH-DRO- 940 ppb; TPH-GRO- ND
	11/08/07	ND	TPH-DRO- 670 ppb; TPH-GRO- ND
	02/21/08	ND	TPH-DRO- ND; TPH-GRO- 1500 ppb
	05/15/08	ND	TPH-DRO- 1600 ppb; TPH-GRO- ND
MW-10A Installed 05/2007 Total well depth 62 ft Depth to bedrock 36 ft 6 inch diameter well; Open borehole	05/23/07	1000 ppb	Benzene- 10 ppb; TBA- 320 ppb; TPH-DRO- 1300 ppb; TPH-GRO- 3000 ppb
	08/09/07	150 ppb	TPH-DRO- 1300 ppb; TPH-GRO- 900 ppb
	11/08/07	1600 ppb	Benzene 15 ppb; TPH-DRO- 3400 ppb; TPH-GRO- 4600 ppb
	02/21/08	3400 ppb	Benzene 9J ppb; TPH-DRO- 2800 ppb; TPH-GRO- 5700 ppb
	05/15/08	32 ppb	Benzene ND; TPH-DRO- 860 ppb; TPH-GRO- 130 ppb
MW-10B Installed 05/2007 Total well depth 100 ft Depth to bedrock 38 ft 6 inch diameter well; Open borehole	05/23/07	560 ppb	Benzene 18 ppb; TPH-DRO- 5100 ppb; TPH-GRO- 1300 ppb
	08/09/07	230 ppb	Benzene 9 ppb; TPH-DRO- 850 ppb; TPH-GRO- 780 ppb
	11/08/07	30 ppb	TPH-DRO- 7100 ppb; TPH-GRO- 120 ppb
	02/21/08	34 ppb	TPH-DRO- 320 ppb; TPH-GRO- 120 ppb
	05/15/08	8 ppb	TPH-DRO- 650 ppb; TPH-GRO- ND

DRINKING WATER WELLS SAMPLED TO DATE IN THE VICINITY OF THE WALLY'S CITGO STATION

	Sample Location	GAC System Installed	Sample Date	Petroleum Constituents of Concern	
				MTBE (20 ppb – action level)	Benzene –Maximum Contaminant Level (MCL) at 5 ppb Tertiary butyl Alcohol (TBA) is an unregulated compound Tertiary Amyl Methyl Ether (TAME) is an unregulated comp. TPH-DRO/TPH-GRO – 47 ppb
1)	9 Ellen's Choice Way		11/03-05/05	ND	
2)	2 Hendricks Court		11/03-05/05	ND	
3)	3 Hendricks Court		11/03-05/05	MTBE at 1.5 ppb	
4)	4 Hendricks Court		11/03-05/05	ND	
5)	1500 Rayville Road		11/03-05/05	ND	
6)	1506 Rayville Road		11/03-05/05	ND	
7)	1509 Rayville Road		11/03-05/05	ND	
8)	1510 Rayville Road		11/03-05/05	ND	
9)	1515 Rayville Road		12/2005	ND	
10)	1523 Rayville Road		11/03-05/05	MTBE at 0.6 ppb	
11)	1529 Rayville Road		12/2005	MTBE at 0.8 ppb	
12)	1606 Rayville Road* (No well log available)	✓	11/03-05/05	MTBE - 2,670 ppb MTBE - 2,250 ppb	
			03/2006	MTBE at 160 ppb	
			04/2006	MTBE at 2,860 ppb	
			05/2006	MTBE at 3,800 ppb	Benzene –6.4J ppb, TAME – 95 ppb; TBA- 740 ppb
			06/2006	MTBE at 3200 ppb	Benzene –7.8J ppb; TAME – 740 ppb; TBA- 77 ppb
			07/2006	MTBE at 3700 ppb	Benzene – 13 ppb; TAME – 98 ppb; TBA- 1300 ppb
			08/2006	MTBE at 5600 ppb	Benzene – 17 ppb; TAME – 150 ppb; TBA- 1200 ppb
			09/2006	MTBE at 5100 ppb	Benzene – 14 ppb; TAME – 140 ppb; TBA- 1000 ppb
			10/2006	MTBE at 5900 ppb	Benzene – 16 ppb; TAME – 160 ppb; TBA- 1500 ppb
			11/2006	MTBE at 6000 ppb	Benzene – 13 ppb; TAME – 160 ppb; TBA- 1600 ppb
			12/2006	MTBE at 4900 ppb	Benzene – 9 ppb; TAME – 120 ppb; TBA- 1400 ppb
			01/2007	MTBE at 390 ppb	Benzene- <0.5 ppb; TAME- 9.3 ppb; TBA- 58 ppb
			02/2007	MTBE at 570 ppb	Benzene- <0.1 ppb; TAME- 16 ppb; TBA- 56 ppb
			03/2007	MTBE at 1800 ppb	Benzene- <1 ppb; TAME- 34 ppb; TBA- 89ppb
			04/2007	MTBE at 2200 ppb	Benzene- <5 ppb; TAME- 41 ppb; TBA- <250 ppb
			05/2007	MTBE at 3100 ppb	Benzene- <2.5 ppb; TAME- 48 ppb; TBA- <130 ppb
			06/2007	MTBE at 5100 ppb	Benzene- <0.3 ppb; TAME- 120 ppb; TBA- 130 ppb
			07/2007	MTBE at 6300 ppb	Benzene- <0.3 ppb; TAME- 120J ppb; TBA- 440 ppb
			08/2007	MTBE at 5800 ppb	Benzene- <0.3 ppb; TAME- 140J ppb; TBA- 650 ppb
			09/2007	MTBE at 6700 ppb	Benzene- 2.9 ppb; TAME- 150J ppb; TBA- 1100 ppb
			10/2007	MTBE at 7400 ppb	Benzene- 4.3 ppb; TAME- 160J ppb; TBA- 1300 ppb
			11/2007	MTBE at 10000ppb	Benzene- 4.0 ppb; TAME- 150 ppb; TBA- 1200 ppb
			12/2007	MTBE at 7900 ppb	Benzene- 5.4 ppb;
			01/2008	MTBE at 7600 ppb	Benzene- 6.4 ppb;
			02/2008	MTBE at 9900 ppb	Benzene- 6.8 ppb;
			03/2008	MTBE at 8100 ppb	Benzene- 5.6 ppb;
			04/2008	MTBE at 680 ppb	Benzene- <0.1ppb
05/2008	MTBE at 110 ppb	Benzene- <0.1ppb			
06/2008	MTBE at 100 ppb	Benzene <0.1ppb			
07/2008	MTBE at 5900 ppb	Benzene <2 ppb			
08/2008	MTBE at 7200 ppb	Benzene <0.5ppb			
13)	1608 Rayville Road * (No well log available)	✓	11/03-05/05	MTBE - 851 ppb MTBE - 900 ppb	
			03/2006	MTBE - 1400 ppb	
			04/2006	MTBE - 1500 ppb	Benzene – 3 ppb
			05/2006	MTBE –1600 ppb	
			06/2006	MTBE – 1400 ppb	Benzene – 2.7 ppb
			07/2006	MTBE –1500 ppb	Benzene – 7.4 ppb
			08/2006	MTBE – 2300 ppb	Benzene – 7.4 ppb
			09/2006	MTBE – 2100 ppb	Benzene – 6.1 ppb
			10/2006	MTBE – 2500 ppb	Benzene – 8.8 ppb
			11/2006	MTBE – 2300 ppb	Benzene – 8.9 ppb
			12/2006	MTBE - 2300 ppb	Benzene – 4.7 ppb
			01/2007	MTBE- 2800 ppb	Benzene- 10 ppb
			02/2007	MTBE- 3300 ppb	Benzene- 13 ppb
			03/2007	MTBE- 4800 ppb	Benzene- 10 ppb
			04/2007	MTBE- 3700 ppb	Benzene- 11 ppb
			05/2007	MTBE- 4300 ppb	Benzene -9.5 ppb
			06/2007	MTBE – 5200 ppb	Benzene -12 ppb; TAME -130 ppb; TBA –1000 ppb
07/2007	MTBE – 6600 ppb	Benzene –12 ppb; TAME -150J ppb; TBA –1100 ppb			

	Sample Location	GAC System Installed	Sample Date	Petroleum Constituents of Concern	
				MTBE (20 ppb – action level)	Benzene –Maximum Contaminant Level (MCL) at 5 ppb Tertiary butyl Alcohol (TBA) is an unregulated compound Tertiary Amyl Methyl Ether (TAME) is an unregulated comp. TPH-DRO/TPH-GRO – 47 ppb
			08/2007	MTBE –4600 ppb	Benzene –9.9 ppb; TAME –130J ppb; TBA –940 ppb
			09/2007	MTBE –4800 ppb	Benzene –14 ppb; TBA –1300ppb
			10/2007	MTBE –5200 ppb	Benzene –11 ppb; TAME –130J ppb; TBA –1100 ppb
			11/2007	MTBE –5100 ppb	Benzene –9.9 ppb; TBA 900 ppb
			12/2007	MTBE –5300 ppb	Benzene –12 ppb
			01/2008	MTBE –6600 ppb	Benzene –8.3 ppb
			02/2008	MTBE –6100 ppb	Benzene –9.4 ppb
			03/2008	MTBE –5200 ppb	Benzene –11 ppb
			04/2008	MTBE –6000 ppb	Benzene- 14 ppb
			05/2008	MTBE –6900 ppb	Benzene- 17J ppb
			06/2008	MTBE- 6900 ppb	Benzene- 11J ppb
			07/2008	MTBE- 7600 ppb	Benzene- 14J ppb
			08/2008	MTBE- 7500 ppb	Benzene- 12 ppb
14)	1612 Rayville Road (No well log available) 4gpm –well yield		11/03-05/05	MTBE – 3.8 ppb	
			03/2006	MTBE – 3.7 ppb	
			05/2006	MTBE – 4.4 ppb	
			06/2006	MTBE – 3.8 ppb	
			07/2006	MTBE –4.7 ppb	
			08/2006	MTBE – 6.2 ppb	
			09/2006	MTBE – 5.9 ppb	
			10/2006	MTBE – 5.9 ppb	
			11/2006	MTBE – 5.7 ppb	
			12/2006	MTBE - 5.6 ppb	
			01/2007	MTBE- 7.5 ppb	
			02/2007	MTBE- 7.4 ppb	
			03/2007	MTBE- 8.1 ppb	
			04/2007	MTBE- 11 ppb	
			05/2007	MTBE- 9.4 ppb	
			06/2007	MTBE –9.3 ppb	
			07/2007	MTBE –10 ppb	
			08/2007	MTBE –8.8 ppb	
			09/2007	MTBE –11 ppb	
			10/2007	MTBE –13 ppb	
			11/2007	MTBE –13 ppb	
			12/2007	MTBE –16 ppb	
			01/2008	MTBE –13 ppb	
			02/2008	MTBE –16 ppb	
			03/2008	MTBE –15 ppb	
			04/2008	MTBE –16 ppb	
05/2008	MTBE –26 ppb				
06/2008	MTBE- 13 ppb				
07/2008	MTBE- 15 ppb				
08/2008	MTBE- 13 ppb				
15)	1614Rayville Road (No well log available)		03/13/06	MTBE – 3.8 ppb	
			05/12/06	MTBE – 4.1 ppb	
			08/10/06	MTBE – 4.1 ppb	
			02/27/07	MTBE- 2.6 ppb	
			05/24/07	MTBE- 3 ppb	
			08/2007	MTBE –2.6 ppb	
			11/2007	MTBE –2.3 ppb	
			02/2008	MTBE –2.2 ppb	
			05/2008	MTBE –2 ppb	
			08/2008	MTBE- 1.5 ppb	
16)	1616 Rayville Road (No well log available)		11/03-05/05	MTBE – 1.8 ppb	
			03/2006	MTBE – 2.3 ppb	
			08/2006	MTBE – 1.9 ppb	
			11/2006	MTBE - 1.4 ppb	
			02/2007	MTBE- 1.8 ppb	
			05/2007	MTBE- 2 ppb	
			08/2007	MTBE –1.3 ppb	
			11/2007	MTBE –1.3 ppb	
02/2008	MTBE –1.3 ppb				

	Sample Location	GAC System Installed	Sample Date	Petroleum Constituents of Concern	
				MTBE (20 ppb – action level)	Benzene –Maximum Contaminant Level (MCL) at 5 ppb Tertiary butyl Alcohol (TBA) is an unregulated compound Tertiary Amyl Methyl Ether (TAME) is an unregulated comp. TPH-DRO/TPH-GRO – 47 ppb
			05/2008	MTBE—2 ppb	
			08/2008	MTBE- 1.6 ppb	
17)	1620 Rayville Road (No well log available)		11/03-05/05	MTBE – 2.3 ppb	
			03/2006	MTBE – 1.1 ppb	
			08/2006	MTBE – 2.3 ppb	
			11/2006	MTBE - 1.6 ppb	
			02/2007	MTBE- 0.9 ppb	
			05/2007	MTBE- 1.2 ppb	
			08/2007	MTBE –1.2 ppb	
			11/2007	MTBE –1.4 ppb	
			02/2008	MTBE—1.6 ppb	
			05/2008	MTBE—1.4 ppb	
			08/2008	MTBE- 1.0 ppb	
18)	1624 Rayville Road Well Tag No. BA-944719 Total well depth 200 ft. Casing to 55ft. Open borehole 55-200 ft 11.1 gpm – well yield		11/03-05/05	MTBE – 0.7 ppb	
			03/2006	MTBE – 0.6 ppb	
			08/2006	MTBE – 0.7 ppb	
			11/2006	MTBE – 0.8 ppb	
			05/2007	MTBE – 0.7 ppb	
			08/2007	MTBE – 0.7 ppb	
			11/2007	MTBE – 0.9 ppb	
			02/2008	MTBE—1.7 ppb	
			05/2008	MTBE—1.8 ppb	
			08/2008	MTBE- 0.8 ppb	
19)	1801 Laurel Ridge Dr.		11/03-05/05	ND	
20)	1805 Laurel Ridge Dr.		11/03-05/05	ND	
21)	19328 Rich Roy Court		11/03-05/05	ND	
22)	1614 Parsonage Rd.		11/03-05/05	ND	
			03/2006	MTBE – 3.8 ppb	
			05/2006	MTBE – 4.1 ppb	
			08/2006	MTBE – 0.3J ppb	
23)	19119 Middletown Rd		11/03-05/05	MTBE at 1.9 ppb	
24)	19124 Middletown Rd		03/2006	ND	
			12/2007	MTBE at 0.9 ppb	
25)	19201 Middletown Rd		11/03-05/05	ND	
			01/2008	MTBE at <0.1 ppb	
26)	19205 Middletown Rd		11/03-05/05	ND	
			12/2007	ND	
27)	19222 Middletown Rd		11/2006	ND	
28)	19223 Middletown Rd		12/2005	MTBE at 0.6 ppb	
29)	19229 Middletown Rd		11/03-05/05	ND	
30)	19235 Middletown Rd		11/03-05/05	MTBE at 0.8 ppb	
31)	19239 Middletown Rd		11/03-05/05	ND	
32)	19303 Middletown Rd		11/03-05/05	ND	
33)	19251 Middletown Rd		03/2006	ND	
34)	19200 Shandall Court		10/2006	MTBE at 0.1j ppb	
35)	19201 Shandall Court		08/2006	ND	
			12/2007	ND	
36)	19203 Shandall Court		09/2006	MTBE at 0.1j ppb	
			12/2007	ND	
37)	19205 Shandall Court		11/03-05/05	MTBE at 1.4 ppb	
			12/2007	MTBE at 0.7 ppb	
38)	19207 Shandall Court		11/03-05/05	ND	
			12/2007	ND	
39)	19208 Shandall Court		08/2006	ND	
40)	19209 Shandall Court		11/03-05/05	ND	
			12/2007	0.2J ppb	
41)	19211 Shandall Court		11/03-05/05	MTBE at 0.8 ppb	
			12/2007	ND	
42)	19213 Shandall Court		08/2006	ND	
			12/2007	ND	
43)	19214 Shandall Court		12/2005	MTBE at 4.7 ppb	
			08/2006	MTBE at 7.5 ppb	
			11/2006	MTBE at 5 ppb	

	Sample Location	GAC System Installed	Sample Date	Petroleum Constituents of Concern	
				MTBE (20 ppb – action level)	Benzene –Maximum Contaminant Level (MCL) at 5 ppb Tertiary butyl Alcohol (TBA) is an unregulated compound Tertiary Amyl Methyl Ether (TAME) is an unregulated comp. TPH-DRO/TPH-GRO – 47 ppb
44)	19215 Shandall Court		11/03-05/05	MTBE at 0.7 ppb	
			01/2008	MTBE at 0.2J ppb	
Transient Non-Community Supply Well					
45)	AIM (PW2) – 19200 Middletown Rd Well Tag No. BA-880948 Total well depth 305 ft. Casing to 47ft. Open borehole 47-305 ft 12 gpm – well yield		11/03-05/05	ND	
			08/2006	ND	
			11/2006	ND	
			02/2007	ND	
			05/2007	ND	
			08/2007	ND	
			11/2007	ND	
			02/2008	ND	
			05/2008	ND	
			08/2008	ND	
	Wally's Citgo (PW1) - 19200 Middletown Rd Well Tag No. BA-945345 Total well depth 240 ft. Casing to 79ft. Open borehole 79-240 ft 12 gpm – well yield		09/2005	MTBE at 0.5J ppb	
			03/2006	MTBE at 0.4J ppb	
			05/2006	ND	
			08/2006	MTBE at 0.3J ppb	
			02/2007	MTBE at 0.3J ppb	
			05/2007	MTBE at 0.8 ppb	
			08/2007	MTBE at 0.9 ppb	
			11/2007	MTBE at 0.6 ppb	
			02/2008	MTBE at 0.5J ppb	
			05/2008	MTBE at 0.3J ppb	
	PW3 19200 Middletown Rd Well Tag No. BA-944839 Total well depth 400 ft. Casing to 40ft. Open borehole 40-400 ft 1.2 gpm – well yield		08/2006	ND	
			05/2008	ND	
			08/2008	ND	