MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Drinking Water Well Impact and Groundwater Investigation Fruhling Residence 3878 Old Federal Hill Road Jarrettsville, Harford County, Maryland Case No. 1988-1130HA

The Maryland Department of the Environment (MDE), Oil Control Program (OCP) continues to evaluate petroleum impacts to the drinking water at 3878 Old Federal Hill Road in Jarrettsville. The State became involved in September 1980, when a neighbor located at 3880 Old Federal Hill Road complained of gasoline contaminants in their drinking water. The Harford County Health Department (HCHD) obtained samples in June 1980. The Department of Health and Mental Hygiene (DHMH), Environmental Health Administration (EHA) observed a storefront and a residence in the rear of the property. Two 1,000 gallon underground storage tanks (USTs) and gasoline pumps were associated with the store and a 550 gallon kerosene UST and pump on the side of the building.

Subsequently, the State conducted soil borings throughout the Fruhling property and detected explosive readings in the vicinity of the gasoline USTs and pump island. In October 1980, an explosion occurred at the subject property and the owner was severely burned and later died from his injuries. The Harford County Fire Marshall determined that gasoline vapors from the basement sump pump ignited and caused the explosion. In November 1980, DHMH-EHA personnel detected liquid phase product (LPH) in the onsite drinking water well. The Department of Natural Resources Water Resource Administration (DNR-WRA) issued Creswell Oil, fuel supplier, a *Notice of Violation, C-81-177*, to initiate removal of gasoline from the supply water well. In April 1981, a new drinking water well was installed and contractors pumped untreated groundwater from the old drinking water well onto the ground until January 1988. In January 1988, a neighbor complained to the MDE-OCP about the untreated discharged water. Following the MDE-OCP site visit, the Department issued *Site Complaint, SC-OV-0299*, to Mrs. Fruhling, property owner at 3878 Old Federal Hill Road, to stop pumping and discharging untreated water to the ground.

On October 1988, the MDE OCP assumed responsibility for this case and financed the removal of the gasoline and kerosene USTs. No perforations were observed. Mrs. Fruhling indicated that the dispensers had leaked and gasoline had accumulated in the bottom of the dispenser pump. Mrs. Fruhling didn't remember when the leak occurred, but indicated that Creswell Oil Company repaired the leak. The MDE-OCP initiated sampling of select off-site drinking water wells, and initiated a subsurface investigation. In December 1990, a pump and treat with soil vacuum extraction remedial system was installed. The system pumped groundwater from two contaminated drinking water wells, the Fruhling's old well and an adjacent neighbors old well located at 3876 Old Federal Hill Road. Additionally, the Department financed the installation of granular activated carbon (GAC) filtration systems at the Fruhling residence and a residence across the street (3873 Old Federal Hill Road). On October 1999, the remediation system was shut down after pumping almost 4,000,000 gallons of groundwater.

The Fruhling site is situated on a broad hilltop of a drainage divide between two watersheds. Land west of Old Federal Hill Road drains to the East Branch of Winters Run, drainage to the east of Old Federal Hill Road enters Deer Creek. Underlain by the Eastern Piedmont Physiographic Province, Lower Pelitic schist of the Wissahickon Group, groundwater flow condition is dominated by east-west fracturing.

The Department currently maintains one (1) GAC unit at no cost to the homeowner and periodically samples select off-site drinking water wells in the area. The Fruhling property was sold on April 2007 and is currently unoccupied. At this time, the MDE-OCP does anticipate sampling any additional off-site private wells beyond sampling needed to ensure community safety.

- 33 wells sampled to date
 - 31 wells Non detect or below USEPA drinking water standards or the State's action levels
 - 2 wells MTBE > 20 ppb; benzene > 5 ppb

3878 Old Federal Hill Road (Fruhling Property) GAC system currently maintained by MDE-OCP. Property sold

April 4, 2007 and is currently vacant

-First exceedance (old well) 3/21/81 benzene – 7 ppb -First exceedance (new well) 12/18/89 benzene – 12 ppb

-Last sampling event (new well) 10/24/06 non-detect for petroleum constituents

3873 Old Federal Hill Road – MDE-OCP transferred the GAC system to the resident in April 2007

-First exceedance 10/18/89 benzene – 7 ppb

-Last sampling event 09/25/07 non-detect for petroleum constituents

3823 Old Federal Hill Road – New case opened, Case No. 1991-1643HA

-First exceedance 11/16/1990 toluene – 18800 ppb, ethylbenzene – 9540 ppb, xylene – 64200 ppb

-Last sampling event 12/28/2005 1,2 dichloroethane – 6.5 ppb, carbon tetrachloride – 22.7 ppb

Chronology:

■ June 6, 1980. HCHD sampled drinking water well at 3880 Old Federal Hill Road. Analytical results show petroleum constituents below the United States Environmental Protection Agency (USEPA) drinking water standards (*see table*).

- September 22, 1980. Neighbor at 3880 Old Federal Hill Road called Department of Natural Resources (DNR), Water Resources Administration (WRA) in reference to gasoline in the drinking water well (*see table*). Since sample results were below regulatory levels, DNR-WRA referred case to DHMH-EHA.
 - 3880 Old Federal Hill Road non-detect
- October 18, 1980. Explosion at Fruhling Store/residence located at 3878 Old Federal Hill Road. Mr. Henry Fruhling is severely burned and later dies from injuries. Harford County Fire Marshall determined that gasoline vapors in basement sump pit ignited when sump pump activated.
- November 17, 1980. HCHD sampled residents at 3876, 3878, and 3880 Old Federal Hill Road. Gasoline constituents detected in 3880 Old Federal Hill Road sample (see table for sample results).
- January 7, 1981. DNR-WRA contacted Creswell Oil Company who indicated that they owned the tanks and pumps at 3878 Old Federal Hill Road. Tank testing to be scheduled.
- January 16, 1981. DNR-WRA issued *Order C-81-177* to Creswell Oil, Inc. UST owner to precision test the gasoline tanks and begin product recovery from the old supply well.
- January 30, 1981. Two gasoline USTs at 3878 Old Federal Hill Road tested and passed.
- February 3, 1981. DNR-WRA performed eight (8) borings at Fruhling property. Explosive readings detected by tank island and drinking water well in backyard.
- February 27, 1981. WRA correspondence to Creswell Oil Inc. and Mrs. Fruhling. Investigation revealed that gasoline pump leaked in the past several years and repairs to the leaking dispenser were made by Creswell Oil Inc. WRA required a cooperative effort between Mrs. Fruhling and Creswell Oil Inc. to remove gasoline product from the well.
- March 18, 1981. Creswell contractors initiated gasoline product recovery and pumping of Fruhling well
- April 16, 1981. Meeting with Creswell Oil Inc. and their attorney, Mrs. Fruhling, Fruhling's attorney, and the State to discuss installation of an oil/water separator to treat pumped groundwater from Fruhling well.
- April 20, 1981. New Fruhling well (HA-73-6481) drilled to depth of 300 feet.
- August 19, 1981. Meeting amongst WRA, HCHD, Mr. Creswell, attorney's for Fruhling, Creswell, and resident at 3880 Old Federal Hill Road and Creswell Oil, Inc.'s consultant personnel.

- Three (3) borings to be performed to investigate the gasoline release.
- October 16, 1981. Three borings to groundwater converted into monitoring wells.
 - HA-73-6778, well depth, 59 feet, well casing, 52.5 feet, 4 inch diameter well
 - HA-73-6779, well depth, 58 feet, well casing, 48 feet, 4 inch diameter well
 - HA-73-6780, well depth, 59 feet, well casing, 52.5 feet, 4 inch diameter well
- November 10, 1981. WRA letter to oil supplier (Creswell Oil, Inc.) indicating that LPH recovery at Fruhling old well complete and WRA requirement satisfied. Case would be referred to HCHD and DHMH-OEP.
- November 24, 1981. HCHD correspondence to WRA. Disagreed with decision to terminate pumping of Fruhling old well. HCHD concerned that if pumping stopped, subsurface petroleum contamination would spread and impact other residents.
- March 9, 1982. Contractor abandoned three borings.
- May 17, 1982. Contractor investigation determined that contamination of perimeter wells occurred prior to 1966, but Fruhling well contamination due to onsite USTs.
- May 16, 1983. Resident at 3873 Old Federal Hill Road letter to Congressman Clarence D. Long, seeking assistance with his well contamination.
- July 18, 1983. Resident at 3873 Old Federal Hill Road contacted HCHD concerning pumping operations on Fruhling old well. Concerned that pumping activities will cause well yield to decrease and also complained about discharged water ponding unto the property.
- January 27, 1984. Fruhling attorney letter to Amoco lawyer. Included equipment loan agreement with Amoco dated 1967, and requested assistance with removal of USTs.
- April 28, 1987. Fruhling new well sampled and petroleum constituent detected below drinking water standard (see table for sample results).
- December 2, 1987. DHMH-OEP site visit to Fruhling residence. Informed by Mrs. Fruhling that Creswell Oil Inc. filed for bankruptcy. Acknowledged that pump in old well activated when she remembers to turn electrical power on.
- January 10, 1988. Resident at 3873 Old Federal Hill Road contacted the United States Environmental Protection Agency (USEPA). Complained about contamination in his well and the discharged water from the Fruhling old well.
- January 18, 1988. Resident at 3873 Old Federal Hill Road contacted MDE OCP concerning discharged water from Fruhling old well.
- January 27, 1988. MDE-OCP representative performed site visit and issued Mrs. Fruhling site complaint, SC-OV-0299, to stop discharging untreated water.
- October 7, 1988. MDE OCP assumed control of cleanup at the Fruhling property. The State financed the removal of the two 1,000-gallon gasoline USTs and a 500-gallon kerosene UST.
 - No perforations detected in excavated USTs
 - Petroleum contaminated soils detected underneath dispenser pumps
- January 9, 1989. Soil gas survey performed on Fruhling property. Elevated hydrocarbon levels detected north of the pump island and extending southward and westward.
- March 14, 1989. Second soil gas survey performed on Fruhling property. Borings and samples collected at greater depth. Hydrocarbon levels detected throughout Fruhling property, extending southward and eastward.

- October 24, 1989. MDE-OCP installed a GAC unit at Fruhling residence to treat groundwater from the new well.
- November 27, 1989. MDE-OCP sampled resident at 3873 Old Federal Hill Road.
 - DW Benzene 10 parts per billion (ppb) (see table).
- November 29, 1989. Senator Amoss (Harford County) contacted MDE-OCP and requested that MDE hold a community meeting to discuss contamination in the area.
- December 1, 1989. MDE-OCP installed a GAC system at 3873 Old Federal Hill Road.
- December 26, 1989. Fruhling attorney letter to Brethren Mutual Insurance Company. Insurance company represents Creswell Oil Inc. Informed insurance company of off-site drinking water well impacts.
- January 23, 1990. Seven monitoring wells (MWs) installed by MDE-OCP contractors.
 - Three (3) shallow MWs (66 feet),
 - Four (4) deep MWs (81, 143, 147, 178 feet), and,
 - One (1) deep MW, D4 (147 feet) installed off-site.
- February 5, 1990. Brethren Mutual Insurance Company (Creswell Oil Inc. insurance company) letter to Fruhling attorney. Policy expired in 1984, therefore spill area is not covered.
- March 2, 1990. MDE-OCP contractor detected gasoline product in well located at 3876 Old Federal Hill Road. Well no longer used by residents, new well drilled.
- April 6, 1990. Attorney for Brethren Mutual Insurance Company letter to Fruhling attorney.
 - Fruhling's purchased property in 1966,
 - Shell Oil ,USTs used by previous owners removed prior to sale,
 - Amoco installed two USTs in June 1967
 - Creswell Oil Co., an independent jobber, concluded an agreement with the Fruhling's to supply Amoco products.
 - In July 1981, resident at 3880 Old Federal Hill Rd filed suit against Amoco Oil Co., Creswell Oil Co. and the Fruhling's, for contamination of their drinking water in June 1980.
 - In March 1988, lawsuit settled for \$25,000
 - Prior to settlement, Creswell settled with the resident at 3880 Old Federal Hill Road for \$7,500.
- May 2, 1990. MDE-OCP held a community meeting to discuss the contamination in the area and remedial efforts.
- November 1, 1990. *Hydrogeological Investigation and Remedial Action at the Fruhling/Jarrettsville Site, November 1990*, submitted to MDE-OCP.
- December 19, 1990. MDE-OCP initiated construction of pump & treat with soil vacuum extraction system. Remedial system to include pumping groundwater from the old drinking water well located at 3876 Old Federal Hill Road and the Fruhling's old well.
- December 21, 1990. Resident at 3880 Old Federal Hill Road submitted a subdivision plan to Harford County.
- January 9, 1991. MDE Attorney General's office received notice that the Secretary of MDE would be served a subpoena for a complaint for declaratory judgment. Brethren Insurance Co. seeking a determination as to its liability for any cost assessed against, or paid by Mrs. Fruhling in connection with the remedial efforts financed by MDE.
- January 25, 1991. HCHD referred residential property located at 3823 Old Federal Hill Road to the MDE, due to detection of petroleum constituents in drinking water sample collected.
- January 31, 1991. Brethren Insurance Company letter to the Circuit Court of Harford Company. Insurance company filing complaint for declaratory judgment.

- February 7, 1991. Fruhling's attorney letter to MDE-OCP that included Mrs. Fruhling's tax returns for the last three years.
- August 12, 1991. Remedial system operational
- July 14, 1994. MDE-OCP contacted property owner at 3872 Old Federal Hill Road, located behind Fruhling property to discuss installation of a discharge line from the remedial system onto this property.
- September 25, 1995. MDE-OCP's contractor initiated trenching to install a 4-inch discharge line from remediation shed to stream embankment west of the Fruhling property
- October 5, 1999. Remedial system shut down.
- September 10, 2001. HCHD letter to MDE-OCP soliciting the Department's input on drilling a new well northwest of Fruhling property in anticipation of developing property.
- December 6, 2001. MDE-OCP letter to HCHD indicating that State had no objection to resident drilling well.
- October 7, 2003. Fruhling's attorney letter to MDE-OCP, requesting that remedial shed and MWs be removed in anticipation of selling property. Mrs. Fruhling had passed away.
- January 9, 2004. MDE-OCP letter to Fruhling attorney indicating that equipment would not be removed and that the State was going to research cost recovery action against the property.
- May 31, 2006. Hydraulic study proposed for the property at 3880 Old Federal Hill Road to HCHD.
- August 4, 2006. MDE OCP's letter to HCHD concerning additional requirements lacking in hydraulic study.
- November 6, 2006. MDE-OCP letter to HCHD indicating no objection to property owner at 3880 Old Federal Hill Road drilling two wells east of current residence.
- April 4, 2007. Fruhling property sold to a private entity. Property is currently unoccupied.
- April 17, 2007. MDE-OCP letter to resident at 3876 Old Federal Hill Road giving the option of keeping GAC system or having system removed. Residents elected to keep GAC system.
- May 10, 2007. HCHD letter to MDE-OCP indicating two wells at 3880 Old Federal Hill Road pumped for 6 hours, samples collected after pump test, and sampling results were non-detect.

Activities:

- 2008. MDE-OCP continues to sample select off-site drinking water wells, 3876, 3880, and 3873 Old Federal Hill Road.
- MDE-OCP to send correspondence to new resident at 3878 Old Federal Hill Road giving owner option of keeping the GAC system or having system removed by State contractors.
- MDE-OCP contractors to schedule MW sampling within six months.

Future Updates:

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

Contacts:

- Maryland Department of the Environment (MDE), Oil Control Program (OCP), 410-537-3443
- Harford County Health Department (HCHD): 443-643-0322 and 443-643-0307

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.

Monitoring Well Sampling Data from the Fruhling Area

Sample Location	DATE	Sampled by	Benzene MCL at 5 ppb	MTBE State's Action Level - 20 ppb	Other Constituents Toluene - 1000 ppb, Ethylbenzene - 700 ppb, Xylene - 10,000 ppb, 1,2 dichloroethane (DCA) – MCL at 5 ppb
	3/1/1990	MDE-OCP	1650	150	
DW1	3/22/1990	MDE-OCP	1610	350	
HA-88-0851	11/10/1992	MDE-OCP	846	106	
Installed 1/1990 Well Depth 178 ft	6/7/1994	MDE-OCP	646	170	
Well Casing 56 ft	7/9/1996	MDE-OCP	840	ND	
4 in diameter well	4/8/1997	MDE-OCP	530	68	
	3/7/2003	MDE-OCP	96	410	
	3/1/1990	MDE-OCP	60	ND	
DW2 <i>HA-88-0860</i>	11/10/1992	MDE-OCP	716	23	
Installed 1/1990	6/7/1994	MDE-OCP	251	98	
Well Depth 143 ft Well Casing 79 ft	7/9/1996	MDE-OCP	460	ND	
4 in diameter well	4/8/1997	MDE-OCP	420	98	
	3/10/2003	MDE-OCP	290	100	
	3/1/1990	MDE-OCP	68	ND	
DW3 <i>HA-88-0861</i>	3/22/1990	MDE-OCP	37	4	
Installed 1/1990	11/12/1992	MDE-OCP	ND	ND	
Well Depth 81 ft Well Casing 57 ft	6/7/1994	MDE-OCP	33	25	
4 in diameter well	7/9/1996	MDE-OCP	ND	ND	
	4/8/1997	MDE-OCP	ND	ND	
	3/7/2003	MDE-OCP	25	ND	
	3/1/1990	MDE-OCP	350	ND	
DW4 <i>HA-</i> 88-0862	3/22/1990	MDE-OCP	92	ND	
Installed 1/1990	11/15/1990	MDE-OCP	500	ND	
Well Depth 147 ft Well Casing 64 ft	11/12/1992	MDE-OCP	515	ND	
4 in. diameter well	11/23/1994	MDE-OCP	578	ND	
	5/10/1996	MDE-OCP	706	ND	
	4/3/1997	MDE-OCP	970	ND	
SW1 <i>HA-88-0856</i>	3/1/1990	MDE-OCP	2000	ND	Toluene – 61500; Ethylbenzene - 2000, Xylene -11500
Installed 1/1990 Well Depth 66 ft	5/31/1994	MDE-OCP	2172	ND	
Well Casing 46 ft	7/17/1996	MDE-OCP	17	Not analyzed (NA)	
4 in diameter well	3/7/2003	MDE-OCP	780	ND	
SW2 HA-88-0857	3/1/1990	MDE-OCP	6000	7500	Toluene -73500, Ethylbenzene –2000 Xylene -13500
Installed 1/1990 Well Depth 66 ft	11/10/1992	MDE-OCP	66	7	

5/31/1994	MDE-OCP	284	ND	
7/17/1996	MDE-OCP	830	NA	
4/8/1997	MDE-OCP	18	ND	
3/7/2003	MDE-OCP	260	ND	

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01440	3/1/1990	MDE-OCP	ND	ND	
SW3 <i>HA-88-0858</i>	11/10/1992	MDE-OCP	12	ND	
Installed 1/1990	5/31/1994	MDE-OCP	ND	ND	
Well Depth 66 ft Well Casing 41 ft	7/17/1996	MDE-OCP	1	NA	
4 in diameter well	4/8/1997	MDE-OCP	ND	ND	
	3/7/2003	MDE-OCP	ND	ND	
	3/1/1990	MDE-OCP	ND	ND	
	5/29/1990	MDE-OCP	ND	ND	
_	5/31/1990	MDE-OCP	2	ND	
_	8/10/1990	MDE-OCP	627	158	Toluene-6690
	1/2/1991	MDE-OCP	287	88	Toluene-4720
	6/14/1991	MDE-OCP	400	250	Toluene -2000
	8/28/1991	MDE-OCP	130	330	
	9/11/1991	MDE-OCP	220	500	
	4/3/1992	MDE-OCP	502	ND	Toluene -2200
	7/29/1992	MDE-OCP	243	94	Toluene -1589
_	9/29/1992	MDE-OCP	243	94	
_	1/26/1993	MDE-OCP	924	214	
R1	5/14/1993	MDE-OCP	ND	ND	
3876 Old Federal	7/30/1993	MDE-OCP	6	23	
Hill Road (old drinking water	10/8/1993	MDE-OCP	63	31	
well)	2/25/1994	MDE-OCP	157	64	
HA-73-2566 Well Depth 77 ft	4/29/1994	MDE-OCP	ND	ND	
Well Casing 44 ft	7/12/1994	MDE-OCP	30	ND	
6 in diameter well	9/7/1994	MDE-OCP	98	67	
	12/20/1994	MDE-OCP	186	90	
	1/17/1995	MDE-OCP	89	67	
	2/23/1995	MDE-OCP	213	70	
	4/27/1995	MDE-OCP	169	63	
	6/30/1995	MDE-OCP	159	63	
	10/23/1995	MDE-OCP	206	72	
	11/29/1995	MDE-OCP	119	53	
	6/12/1996	MDE-OCP	45	12	
	8/27/1996	MDE-OCP	44	11	
	12/3/1996	MDE-OCP	14	17	
	1/6/1997	MDE-OCP	5	9	
	1/31/1997	MDE-OCP	2	ND	
	2/25/1997	MDE-OCP	2	3	

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R1	3/26/1997	MDE-OCP	4	ND	
(continued)	4/21/1997	MDE-OCP	27	ND	
_	5/30/1997	MDE-OCP	62	18	
_	6/25/1997	MDE-OCP	59	26	
_	7/17/1997	MDE-OCP	11	19	
_	8/27/1997	MDE-OCP	34	31	
_	9/16/1997	MDE-OCP	42	29	
_	10/14/1997	MDE-OCP	12	10	
_	11/14/1997	MDE-OCP	21	22	
_	12/5/1997	MDE-OCP	25	41	
_	3/30/1998	MDE-OCP	110	30	
_	4/20/1998	MDE-OCP	73	16	
_	5/18/1998	MDE-OCP	3	7	
_	7/30/1998	MDE-OCP	ND	2	
_	8/24/1998	MDE-OCP	ND	2.00	
_	9/21/1998	MDE-OCP	ND	ND	
_	12/21/1998	MDE-OCP	44	15	
_	2/16/1999	MDE-OCP	84	24	
_	3/16/1999	MDE-OCP	57	19	
_	4/19/1999	MDE-OCP	16	16	
_	5/17/1999	MDE-OCP	12	19	
R2	12/14/1982	MDE-OCP	2800	ND	Toluene-15000
Fruhling old Irinking water	3/10/1983	MDE-OCP	3200	ND	Toluene-19000
vell) No well tag Vell Depth 87 ft	1/10/1984	MDE-OCP	4400	ND	Toluene-31000 Ethylbenzene-1700 DCA-5
Well Casing 21	7/31/1984	MDE-OCP	2000	ND	Toluene-21000
t in diameter	5/13/1985	MDE-OCP	3220	ND	Toluene-30880
ell	2/3/1986	MDE-OCP	2900	3	Toluene-25780
	10/16/1986	MDE-OCP	6400	1100	Toluene-54000 Ethylbenzene-2500 Xylene-13000 DCA-6
	4/28/1987	MDE-OCP	2600	ND	Toluene-2500 Ethylbenzene-1000.
-	11/19/1987	MDE-OCP	1840	340	Toluene-20910
	1/22/1988	MDE-OCP	2020	350	Toluene-18900
	10/4/1989	MDE-OCP	2150	ND	Toluene-24930
	8/6/1990	MDE-OCP	2460	640	Toluene-34420 Ethylbenzene-1320
	1/2/1991	MDE-OCP	2650	ND	Toluene-75000 Ethylbenzene-2030
-	6/14/1991	MDE-OCP	3600	2000	Toluene –50000
-	8/28/1991	MDE-OCP	3900	1600	E thvlbenzene-1300 Toluene-51000
	9/11/1991	MDE-OCP	3500	1600	Toluene-48000
	4/3/1992	MDE-OCP	2300	ND	Toluene-12687
	7/29/1992	MDE-OCP	872	340	Toluene-9968

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	9/29/1992	MDE-OCP	872	340	
	1/26/1993	MDE-OCP	7230	576	
	5/14/1993	MDE-OCP	2816	2500	
	7/30/1993	MDE-OCP	5670	833	
	10/8/1993	MDE-OCP	1580	484	
	2/25/1994	MDE-OCP	7040	1030	
	4/29/1994	MDE-OCP	2051	483	
	7/12/1994	MDE-OCP	2100	ND	
	9/7/1994	MDE-OCP	2991	248	
	12/20/1994	MDE-OCP	2130	746	
	1/17/1995	MDE-OCP	2369	580	
	2/23/1995	MDE-OCP	2470	470	
	4/27/1995	MDE-OCP	2860	836	
	6/30/1995	MDE-OCP	2550	753	
	10/23/1995	MDE-OCP	3390	569	
	11/29/1995	MDE-OCP	1720	343	
R2	6/12/1996	MDE-OCP	1591	283	
continued)	8/27/1996	MDE-OCP	1800	390	
	12/3/1996	MDE-OCP	1800	330	
	1/6/1997	MDE-OCP	1300	430	
	1/31/1997	MDE-OCP	1800	350	
	2/25/1997	MDE-OCP	1400	400	
	3/26/1997	MDE-OCP	1800	450	
	4/21/1997	MDE-OCP	1300	43	
	5/30/1997	MDE-OCP	1600	410	
	6/25/1997	MDE-OCP	1900	530	
	7/17/1997	MDE-OCP	1900	380	
	8/27/1997	MDE-OCP	1900	410	
	9/16/1997	MDE-OCP	1600	410	
	10/14/1997	MDE-OCP	2062	188	
	11/14/1997	MDE-OCP	2626	497	
	12/5/1997	MDE-OCP	3567	1661	
	3/30/1998	MDE-OCP	854	ND	
	4/20/1998	MDE-OCP	1170	ND	
	5/18/1998	MDE-OCP	1170	ND	
	7/30/1998	MDE-OCP	724	117.	
	8/24/1998	MDE-OCP	885	126	
	9/21/1998	MDE-OCP	1490	ND	
	12/21/1998	MDE-OCP	1540	ND	
	2/1/1999	MDE-OCP	998	ND	
	2/16/1999	MDE-OCP	1800	ND	
	3/16/1999	MDE-OCP	1460	ND	
	4/19/1999	MDE-OCP	1310	ND	
	5/17/1999	MDE-OCP	1350	ND	

				Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xylene - 10,000 ppb,	
N-SITE PRIVATE	WELL						
		MDE-OCP	11/17/1980	LPH	LPH ND	LPH in sample	
3878 Old Federal		MDE-OCP	3/12/1981 (raw-old well) 3/18/1981 (raw)	7 ND	ND ND	LPH in well	
Hill Road (Fruhling residence)		MDE-OCP	9/1/1981 (raw)	6000	ND	Toluene-65000, Ethylbenzene-2700, Xylene-12000	
HA-81-6481		MDE-OCP	10/29/1981 (raw)	3500	ND	Toluene-19000	
nstalled Vell Depth 300 ft		MDE-OCP	1/5/1982 (raw-new well)	ND	ND		
Vell Casing 75'		MDE-OCP	2/8/1982 (raw)	ND	ND		
6 in diameter well		MDE-OCP	3/10/1982 (raw)	ND	ND		
		MDE-OCP	5/18/1982 (raw)	ND	ND		
		MDE-OCP	6/9/1982 (raw)	ND	ND		
		MDE-OCP	3/24/1983 (raw)	ND	ND		
		MDE-OCP	8/3/1983 (raw)	ND	ND		
		MDE-OCP	1/10/1984 (raw)	ND	ND		
		MDE-OCP	7/31/1984 (raw)	ND	ND		
		MDE-OCP	1/20/1986 (raw)	ND	ND		
		MDE-OCP	10/16/1986 (raw)	ND	ND		
		MDE-OCP	4/28/1987 (raw)	ND	ND		
	1010	MDE-OCP	10/22/1987 (raw)	ND	105		
	√ GAC system installed on	MDE-OCP	10/27/1987 (raw)	ND	ND		
	10/1989	MDE-OCP	1/22/1988 (raw)	ND	ND		
		MDE-OCP	2/2/1988 (raw)	ND	ND		
		MDE-OCP	10/14/1988 (raw)	ND	ND		
		MDE-OCP	1/9/1989 (raw)	ND	ND		
		MDE-OCP	10/4/1989 (raw)	4	1		
		MDE-OCP	12/18/1989 (pre-filter)	12	5		
			12/18/1989 (mid-filter)	ND	ND		
			12/18/1989 (post-filter)	ND	ND		
		MDE-OCP	3/12/1990 (pre-filter)	16	8		
			3/12/1990 (mid-filter)	8	ND		
			3/12/1990 (post-filter)	ND	ND		
		MDE-OCP	5/8/1990 (pre-filter)	29	23		
			5/8/1990 (mid-filter)	25	19		
			5/8/1990 (post-filter)	9	9		
		MDE-OCP	5/31/1990 (pre-filter)	37	11		
			5/31/1990 (mid-filter)	ND	ND		
			5/31/1990 (post-filter)	ND	ND		
		MDE-OCP	8/2/1990 (pre-filter)	17	ND		
			8/2/1990 (mid-filter)	16	ND		
			8/2/1990 (post-filter)	ND	ND		
		MDE-OCP	9/6/1990 (pre-filter)	25	ND		
			9/6/1990 (mid-filter)	19	ND		
			9/6/1990 (post-filter)	ND	ND		

0	040 in 4-11-1	0	Sample Event	Petroleum Constituents of Concern			
Sample Location		Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
ON-SITE PRIVATE	WELL						
		MDE-OCP	10/12/1990 (pre-filter)	27	ND		
			10/12/1990 (mid-filter)	ND	ND		
			10/12/1990 (post-filter)	ND	ND		
878 Old Federal ill Road		MDE-OCP	11/15/1990 (pre-filter)	28	ND		
continued)			11/15/1990 (mid-filter)	ND	ND		
			11/15/1990 (post-filter)	4.4	ND		
		MDE-OCP	12/26/1990 (pre-filter)	44	ND		
			12/26/1990 (mid-filter)	3	ND		
			12/26/1990 (post-filter)	5	ND		
		MDE-OCP	3/7/1991 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	5/16/1991 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	11/8/1991 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/13/92 (post-filter)	ND	ND		
		MDE-OCP	9/8/1992 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/26/1993 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	6/11/1993 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	11/17/1993 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	2/1/1994 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/26/1996 (pre-filter)	ND	ND		
		MDE-OCP	10/6/1997 (mid-filter)	ND	ND		
		MDE-OCP	1/30/2002 (mid-filter)	ND	ND		
		MDE-OCP	1/17/1995 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	7/26/1995 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	8/23/1995 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/26/1996 (mid-filter)	ND	ND		
			1/26/1996 (post-filter)	ND	ND		
		MDE-OCP	8/27/1996 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/27/1997 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	5/30/1997 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	3/17/1998 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	12/7/1998 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	4/28/1999 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	7/26/1999 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	10/5/1999 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/19/2000 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	4/3/2000 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	7/13/2000 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	10/3/2000 (pre/mid/post-filter)	ND	ND		

Comple I	CAC installact	Commissible	Samula Frant	Petroleum Constituents of Concern			
Sample Location		Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
ON-SITE PRIVATE	WELL						
		MDE-OCP	1/31/2001 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	4/24/2001 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	7/31/2001 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	10/31/2001 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	1/30/2002 (pre-filter)	ND	ND		
3878 Old Federal Hill Road			1/30/2002 (post-filter)	ND	ND		
(continued)		MDE-OCP	5/30/2002 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	8/22/2002 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	11/7/2002 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	8/27/2003 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	11/24/2003 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	2/17/2004 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	5/24/2004 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	8/27/2004 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	11/23/2004 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	2/4/2005 (pre/mid/post-filter)	ND	ND		
		MDE-OCP	5/11/2005 (pre-filter)	ND	ND		
		MDE-OCP	9/22/2005 (pre-filter)	ND	ND		
		MDE-OCP	1/13/2006 (pre-filter)	ND	ND		
		MDE-OCP	5/5/2006 (pre-filter)	ND	ND		
		MDE-OCP	6/2/2006 (post-filter)	ND	ND		
		MDE-OCP	10/24/2006 (pre-filter)	ND	ND		
OFF-SITE PRIVATI	E WELLS	'		'	'		
		MDE-OCP	10/18/1989 (raw)	7	ND		
3873 Old Federal		MDE-OCP	11/27/1989 (raw)	10	3		
Hill Road		MDE-OCP	12/7/1989 (raw)	7	3		
HA-81-3978		MDE-OCP	12/7/1989 (raw)	ND	ND		
Installed	,	MDE-OCP	12/7/1989 (raw)	ND	ND		
Well Depth 300 ft Well Casing 57'	√GAC system installed on	MDE-OCP	1/11/1990 (raw)	ND	ND		
6 in diameter well	12/1989	MDE-OCP	1/11/1990 (raw)	ND	ND		
		MDE-OCP	1/11/1990 (raw)	ND	ND		
		MDE-OCP	3/1/1990 (pre-filter)	3	2		
			3/1/1990 (mid/post-filter)	ND	ND		
		MDE-OCP	4/4/1990 (pre-filter)	8	5		
			4/4/1990 (mid/post-filter)	ND	ND		
		MDE-OCP	5/8/1990 (pre-filter)	29	23		
			5/8/1990 (mid-filter)	25	19		
			` ′				
		MDE-OCP					
		MDE-OCP	5/8/1990 (post-filter) 5/31/1990 (pre/mid/post-filter)	9 ND	9 ND		

					Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xylene - 10,000 ppb,		
FF-SITE PRIVAT	E WELLS							
		MDE-OCP	6/29/1990 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	8/6/1990 (pre-filter)	ND	2			
			8/6/1990 (mid/post -filter)	ND	ND			
		MDE-OCP	9/6/1990 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	10/12/1990 (pre-filter)	4	8			
			10/12/1990 (mid-filter)	ND	2			
			10/12/1990 (post-filter)	ND	ND			
		MDE-OCP	11/15/1990 (pre-filter)	ND	10			
			11/15/1990 (mid/post-filter)	ND	ND			
		MDE-OCP	12/26/1990 (pre-filter)	5.6	12			
			12/26/1990 (mid/post - filter)	ND	ND			
		MDE-OCP	3/7/1991 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	5/16/1991 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	8/27/1991 (pre-filter)	ND	1.3			
			8/27/1991 (mid/post-filter)	ND	ND			
		MDE-OCP	11/8/1991 (pre/mid/post-filter)	ND	ND			
373 Old Federal		MDE-OCP	1/13/1992 (pre/mid/post-filter)	ND	ND			
ill Road		MDE-OCP	7/6/1992 (post-filter)	ND	ND			
continued)		MDE-OCP	9/8/1992 (post-filter)	ND	ND			
		MDE-OCP	1/26/1993 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	6/8/1993 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	11/17/1993 (pre-filter)	ND	5.5			
			11/17/1993 (mid-filter)	ND	ND			
			11/17/1993 (post-filter)	ND	ND			
		MDE-OCP	2/1/1994 (pre-filter)	ND	17			
		52 00.	2/1/1994 (mid-filter)	ND	ND			
			2/1/1994 (post-filter)	ND	ND			
		MDE-OCP	7/26/1994 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	8/11/1994 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	1/10/1995 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	8/23/1995 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	1/26/1996 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	5/28/1996 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	10/1/1996 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	1/6/1997 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	5/30/1997 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	10/6/1997 (pre/mid/post-filter)	ND	ND			
		MDE-OCP	3/17/1998 (pre/mid/post-filter)	ND	ND			
			, ,					
		MDE-OCP	12/7/1998 ((pre/mid/post-filter)	ND	ND			

Commis I continu	CAC imptalled of	Campulad by	Comple Front		Petroleum Constit	uents of Concern
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.
OFF-SITE PRIVAT	E WELLS					
		MDE-OCP	4/28/1999 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	7/26/1999 (pre/mid/post-filter)	ND	ND	
8873 Old Federal		MDE-OCP	10/5/1999 (pre/mid/post-filter)	ND	ND	
Hill Road (continued)		MDE-OCP	1/19/2000 (pre/mid/post-filter)	ND	ND	
oonanaca)		MDE-OCP	4/3/2000 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	7/13/2000 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	10/3/2000 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	1/31/2001 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	3/8/2001 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	4/24/2001 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	7/31/2001 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	10/31/2001(pre/mid/post-filter)	ND	ND	
		MDE-OCP	1/30/2002 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	5/30/2002 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	8/22/2002 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	11/7/2002 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	2/10/2003 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	5/30/2003 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	8/27/2003 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	11/19/2003 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	2/17/2004 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	5/24/2004 ((pre/mid/post-filter)	ND	ND	
		MDE-OCP	8/27/2004 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	11/23/2004 ((pre/mid/post-filter)	ND	ND	
		MDE-OCP	2/4/2005 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	5/11/2005 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	9/22/2005 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	1/13/2006 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	5/5/2006 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	9/20/2006 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	3/13/2007 (pre/mid/post-filter)	ND	ND	
		MDE-OCP	9/25/2007 (pre-filter)	ND	ND	

					Petroleum Constitu	ents of Concern
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.
FF-SITE PRIVAT	E WELLS					Aviene - 10.000 DDD.
		MDE-OCP	11/17/1980 (raw)	ND	ND	
876 Old Federal		MDE-OCP	9/17/1981 (raw)	ND	ND	
Hill Road		MDE-OCP	10/18/1989 (raw)	ND	ND	
IA-71-0220 Io date on well		MDE-OCP	3/1/1990 (raw)	ND	ND	
ompletion report		MDE-OCP	6/29/1990 (raw)	ND	ND	
Vell Depth 145 ft		MDE-OCP	8/2/1990 (raw)	ND	ND	
Vell Casing 53 ft in diameter well		MDE-OCP	9/6/1990 (raw)	ND	ND	
		MDE-OCP	11/20/1990 (raw)	ND	ND	
		MDE-OCP	4/23/1993 (raw)	ND	ND	
		MDE-OCP	8/23/1995 (raw)	ND	ND	
		MDE-OCP	1/26/1996 (raw)	ND	ND	
		MDE-OCP	5/28/1996 (raw)	ND	ND	
		MDE-OCP	10/1/1996 (raw)	ND	ND	
		MDE-OCP	5/30/1997 (raw)	ND	ND	
		MDE-OCP	10/6/1997 (raw)	ND	ND	
		MDE-OCP	3/17/1998 (raw)	ND	ND	
		MDE-OCP	12/7/1998 (raw)	ND	ND	
		MDE-OCP	4/28/1999 (raw)	ND	ND	
		MDE-OCP	7/26/1999 (raw)	ND	ND	
		MDE-OCP	10/5/1999 (raw)	ND	ND	
		MDE-OCP	1/19/2000 (raw)	ND	ND	
		MDE-OCP	4/3/2000 (raw)	ND	ND	
		MDE-OCP	7/13/2000 (raw)	ND	ND	
		MDE-OCP	10/3/2000 (raw)	ND	ND	
		MDE-OCP	1/31/2001 (raw)	ND	ND	
			4/24/2001 (raw)	ND	ND	
		MDE-OCP	7/31/2001 (raw)	ND	ND	
		MDE-OCP	10/31/2001 (raw)	ND	ND	
		MDE-OCP	1/30/2002 (raw)	ND	ND	
		MDE-OCP	5/30/2002 (raw)	ND	ND	
		MDE-OCP	8/22/2002 (raw)	ND	ND	
		MDE-OCP	11/7/2002 (raw)	ND	ND	
			2/10/2003 (raw)	ND	ND	
			5/16/2003 (raw)	ND	ND	
		MDE-OCP	8/27/2003 (raw)	ND	ND	
		MDE-OCP	11/19/2003 (raw)	ND	ND	
			2/17/2004 (raw)	ND	ND	
		MDE-OCP	5/24/2004 (raw)	ND	ND	
		MDE-OCP	8/27/2004 (raw)	ND	ND	
		MDE-OCP	11/23/2004 (raw)	ND	ND	
			2/4/2005 (raw)	ND	ND	
			5/11/2005 (raw)	ND	ND	
		MDE-OCP	9/22/2005 (raw)	ND	ND	
		MDE-OCP	1/13/2006 (raw)	ND	ND	

0	040 14-11-4	0	0	Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
OFF-SITE PRIVATI	E WELLS						
		MDE-OCP	5/5/2006 (raw)	ND	ND		
8876 Old Federal		MDE-OCP	9/20/2006 (raw)	ND	ND		
Hill Road		MDE-OCP	3/13/2007 (raw)	ND	ND		
continued)		MDE-OCP	9/25/2007 (raw)	ND	ND		
		MDE-OCP	11/9/2007 (raw)	ND	ND		
			5/11/2005 (pre-filter)	ND	ND		
877 Old Federal		MDE-OCP	5/11/2005 (post-filter)	ND	ND		
lill Rd		MDE-OCP	9/22/2005 (pre-filter)	ND	ND		
		MDE-OCP	1/30/2006 (pre-filter)	ND	ND		
			7/31/2006 (pre-filter)	ND	ND		
		MDE-OCP	7/31/2006 (post-filter)	ND	ND		
		MDE-OCP	1/17/2007 (pre-filter)	ND	ND		
			, ,				
		MDE-OCP	6/16/1980 (raw)	ND	ND		
		MDE-OCP	11/17/1980 (raw)	3	ND		
880 Old Federal		MDE-OCP	11/24/1980 (raw)	1	ND		
ill Road		MDE-OCP	3/18/1981 (raw)	ND	ND		
		MDE-OCP	9/1/1981 (raw)	3	ND		
		MDE-OCP	7/18/1982 (raw)	ND	ND		
		MDE-OCP	6/6/1983 (raw)	5	ND		
		MDE-OCP	10/18/1989 (raw)	ND	ND		
		MDE-OCP	3/12/1990 (raw)	ND	ND		
		MDE-OCP	5/31/1990 (raw)	2	ND		
		MDE-OCP	6/29/1990 (raw)	ND	ND		
		MDE-OCP	8/2/1990 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND ND		
			` ′	ND ND	ND ND		
		MDE-OCP	10/12/1990 (raw) 11/20/1990 (raw)	ND ND	ND ND		
		MDE-OCP	3/7/1991 (raw)	ND	ND		
		MDE-OCP	5/16/1991 (raw)	ND	ND		
		MDE-OCP	11/8/1991 (raw)	ND	ND		
		MDE-OCP	10/12/1995 (raw)	ND	ND		
		MDE-OCP	6/5/1996 (raw)	ND	ND		
		MDE-OCP	1/27/1997 (raw)	ND	ND		
		MDE-OCP	10/6/1997 (raw)	ND	ND		
		MDE-OCP	3/17/1998 (raw)	ND	ND		
		MDE-OCP	12/7/1998 (raw)	ND	ND		
		MDE-OCP	4/28/1999 (raw)	ND	ND		
		MDE-OCP	7/26/1999 (raw)	ND	ND		
		MDE-OCP	10/5/1999 (raw)	ND	ND		

				Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
OFF-SITE PRIVATI	E WELLS	MDE-OCP	4/3/2000 (raw)	ND	ND		
		MDE-OCP	7/13/2000 (raw)	ND	ND		
3880 Old Federal Hill Road		MDE-OCP	10/3/2000 (raw)	ND	ND		
(continued)		MDE-OCP	1/31/2001 (raw)	ND	ND		
		MDE-OCP	4/24/2001 (raw)	ND	ND		
				ND			
		MDE-OCP	7/31/2001 (raw)		ND		
		MDE-OCP	10/31/2001 (raw)	ND	ND		
		MDE-OCP	1/30/2002 (raw)	ND	ND		
		MDE-OCP	5/30/2002 (raw)	ND	ND		
		MDE-OCP	8/22/2002 (raw)	ND	ND		
		MDE-OCP	11/7/2002 (raw)	ND	ND		
		MDE-OCP	2/10/2003 (raw)	ND	ND		
		MDE-OCP	5/16/2003 (raw)	ND	ND		
		MDE-OCP	11/19/2003 (raw)	ND	ND		
		MDE-OCP	2/17/2004 (raw)	ND	ND		
		MDE-OCP	5/24/2004 (raw)	ND	ND		
		MDE-OCP	8/27/2004 (raw)	ND	ND		
		MDE-OCP	11/23/2004 (raw)	ND	ND		
		MDE-OCP	2/4/2005 (raw)	ND	ND		
		MDE-OCP	5/11/2005 (raw)	ND	ND		
		MDE-OCP	9/22/2005 (raw)	ND	ND		
		MDE-OCP	1/13/2006 (raw)	ND	ND		
		MDE-OCP	5/5/2006 (raw)	ND	ND		
		MDE-OCP	9/20/2006 (raw)	ND	ND		
		MDE-OCP	3/13/2007 (raw)	ND	ND		
		MDE-OCP	9/25/2007 (raw)	ND	ND		
		MDE-OCP	9/22/2005 (raw)	ND	ND		
		MDE-OCP	1/13/2006 (raw)	ND	ND		
		MDE-OCP	5/5/2006 (raw)	ND	ND		
		MDE-OCP	9/20/2006 (raw)	ND	ND		
		MDE-OCP	3/13/2007 (raw)	ND	ND		
		MDE-OCP	9/25/2007 (raw)	ND	ND		

	0.00			Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
OFF-SITE PRIVAT	E WELLS						
		MDE-OCP	12/6/1989 (raw)	ND	ND		
		MDE-OCP	4/4/1990 (raw)	ND	ND		
439 Knopp Road		MDE-OCP	9/6/1990 (raw)	ND	ND		
HA-81-4336 nstalled 3/1988		MDE-OCP	1/10/1995 (raw)	ND	ND		
Well Depth 100 ft		MDE-OCP	8/1/1996 (raw)	ND	ND		
Well Casing 35 ft 5 in diameter well		MDE-OCP	9/3/1996 (raw)	ND	ND		
o in diameter well		MDE-OCP	5/30/1997 (raw)	ND	ND		
		MDE-OCP	10/6/1997 (raw)	ND	ND		
		MDE-OCP	3/17/1998 (raw)	ND	ND		
		MDE-OCP	12/7/1998 (raw)	ND	ND		
		MDE-OCP	4/28/1999 (raw)	ND	ND		
		MDE-OCP	7/26/1999 (raw)	ND	ND		
		MDE-OCP	10/5/1999 (raw)	ND	ND		
		MDE-OCP	1/19/2000 (raw)	ND	ND		
		MDE-OCP	4/3/2000 (raw)	ND	ND		
		MDE-OCP	7/13/2000 (raw)	ND	ND		
		MDE-OCP	10/3/2000 (raw)	ND	ND		
		MDE-OCP	1/31/2001 (raw)	ND	ND		
		MDE-OCP	4/24/2001 (raw)	ND	ND		
		MDE-OCP	7/31/2001 (raw)	ND	ND		
		MDE-OCP	10/31/2001 (raw)	ND	ND		
		MDE-OCP	1/30/2002 (raw)	ND	ND		
		MDE-OCP	5/30/2002 (raw)	ND	ND		
		MDE-OCP	8/22/2002 (raw)	ND	ND		
		MDE-OCP	11/7/2002 (raw)	ND	ND		
		MDE-OCP	2/10/2003 (raw)	ND	ND		
		MDE-OCP	5/16/2003 (raw)	ND	ND		
		MDE-OCP	8/27/2003 (raw)	ND	ND		
		MDE-OCP	11/19/2003 (raw)	ND	ND		
		MDE-OCP	2/17/2004 (raw)	ND	ND		
		MDE-OCP	5/24/2004 (raw)	ND	ND		
		MDE-OCP	8/27/2004 (raw)	ND	ND		
		MDE-OCP	11/23/2004 (raw)	ND	ND		
		MDE-OCP	2/4/2005 (raw)	ND	ND		
		MDE-OCP	5/11/2005 (raw)	ND	ND		
		MDE-OCP	11/9/2005 (raw)	ND	ND		
		MDE-OCP	5/5/2006 (raw)	ND	ND		
		MDE-OCP	11/13/2006 (raw)	ND	ND		

0				Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
FF-SITE PRIVATI	E WELLS						
		MDE-OCP	10/24/1989 (raw)	ND	ND		
441 Knopp Road IA-81-4245		MDE-OCP	4/4/1990 (raw)	ND	ND		
nstalled		MDE-OCP	9/6/1990 (raw)	ND	ND		
Vell Depth 300 ft		MDE-OCP	1/10/1995 (raw)	ND	ND		
		MDE-OCP	8/1/1996 (raw)	ND	ND		
		MDE-OCP	5/30/1997 (raw)	ND	ND		
		MDE-OCP	10/6/1997 (raw)	ND	ND		
		MDE-OCP	3/17/1998 (raw)	ND	ND		
		MDE-OCP	12/7/1998 (raw)	ND	ND		
		MDE-OCP	4/28/1999 (raw)	ND	ND		
		MDE-OCP	7/26/1999 (raw)	ND	ND		
		MDE-OCP	10/5/1999 (raw)	ND	ND		
		MDE-OCP	1/19/2000 (raw)	ND	ND		
		MDE-OCP	4/3/2000 (raw)	ND	ND		
		MDE-OCP	7/13/2000 (raw)	ND	ND		
		MDE-OCP	10/3/2000 (raw)	ND	ND		
		MDE-OCP	1/31/2001 (raw)	ND	ND		
		MDE-OCP	4/24/2001 (raw)	ND	ND		
		MDE-OCP	7/31/2001 (raw)	ND	ND		
		MDE-OCP	10/31/2001 (raw)	ND	ND		
		MDE-OCP	1/30/2002 (raw)	ND	ND		
		MDE-OCP	5/30/2002 (raw)	ND	ND		
		MDE-OCP	8/22/2002 (raw)	ND	ND		
		MDE-OCP	11/7/2002 (raw)	ND	ND		
		MDE-OCP	2/10/2003 (raw)	ND	ND		
		MDE-OCP	5/16/2003 (raw)	ND	ND		
		MDE-OCP	8/27/2003 (raw)	ND	ND		
		MDE-OCP	11/19/2003 (raw)	ND	ND		
		MDE-OCP	2/17/2004 (raw)	ND	ND		
		MDE-OCP	5/24/2004 (raw)	ND	ND		
		MDE-OCP	8/27/2004 (raw)	ND	ND		
		MDE-OCP	11/23/2004 (raw)	ND	ND		
		MDE-OCP	2/4/2005 (raw)	ND	ND		
		MDE-OCP	5/11/2005 (raw)	ND	ND		
		MDE-OCP	11/9/2005 (raw)	ND	ND		
		MDE-OCP	5/5/2006 (raw)	ND	ND		
		MDE-OCP	11/13/2006 (raw)	ND	ND		

				Petroleum Constituents of Concern			
Sample Location	GAC installed √	Sampled by	Sample Event	Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
OFF-SITE PRIVATE WELLS	- Sampled during	initial investi	gation phase				
3823 Old Federal Hill Road		MDE-OCP	7/10/1990 (raw)	ND	ND		
			11/16/1990 (raw)	194	ND	Toluene - 18800, Ethylbenzene - 9540, Yylene - 64200	
3839 Old Federal Hill Road		MDE-OCP	8/11/1994 (raw)	ND	ND		
3853 Old Federal Hill Road		MDE-OCP	12/6/1989 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
3855 Old Federal Hill Road		MDE-OCP	3/1/1990 (raw)	ND	ND		
3856 Old Federal Hill road		MDE-OCP	12/6/1989 (raw)	ND	ND		
3860 Old Federal Hill Road		MDE-OCP	3/12/1990 (raw)	ND	ND		
		MDE-OCP	3/21/1990 (raw)	ND	ND		
3861 Old Federal Hill Road		MDE-OCP	10/24/1989 (pond)	ND	3109		
			10/24/1989 (raw)	ND	ND		
		MDE-OCP	11/29/1989 (stream)	ND	ND		
		MDE-OCP	12/7/1989 (raw)	ND	ND		
		MDE-OCP	3/1/1990 (raw)	ND	ND		
		MDE-OCP	3/15/1990 (pond)	ND	ND		
			3/15/1990 (stream)	ND	ND		
		MDE-OCP	3/12/1990 (pond)	ND	ND		
			3/12/1990 (spring)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
			9/6/1990 (stream)	ND	ND		
3863 Old Federal Hill Road		MDE-OCP	12/7/1989 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
		MDE-OCP	10/26/1990 (raw)	ND	ND		
3865 Old Federal Hill Road		MDE-OCP	9/6/1990 (raw)	ND	ND		
3868 Old Federal Hill Road		MDE-OCP	9/6/1990 (raw)	ND			
3867 Old Federal Hill Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
		MDE-OCP	3/12/1990 (raw)	ND	ND		
		MDE-OCP	5/31/1990 (raw)	ND	ND		
		MDE-OCP	8/2/1990 (raw)	ND	ND		
		MDE-OCP	8/10/1990 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
		MDE-OCP	11/20/1990 (raw)	ND	ND		
		MDE-OCP	3/7/1991 (raw)	ND	ND		
		MDE-OCP	11/8/1991 (raw)	ND	ND		

	CAC installed 1	Sampled by	Sample Event	Petroleum Constituents of Concern			
Sample Location	GAC installed √			Benzene MCL at 5 ppb	MTBE State's Action Level – 20 ppb	Other Constituents Toluene - 1000 ppb; Ethylbenzene - 700 ppb; Xvlene - 10.000 ppb.	
OFF-SITE PRIVATE WELLS							
		MDE-OCP	9/6/1990 (raw)	ND	ND		
		MDE-OCP	11/20/1990 (raw)	ND	ND		
		MDE-OCP	3/7/1991 (raw)	ND	ND		
		MDE-OCP	11/8/1991 (raw)	ND	ND		
3868 Old Federal Hill Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
		MDE-OCP	3/12/1990 (raw)	ND	ND		
3872 Old Federal Hill Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
		MDE-OCP	3/15/1990 (raw)	ND	ND		
		MDE-OCP	5/31/1990 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
		MDE-OCP	11/8/1991 (raw)	ND	ND		
3879 Old Federal Hill Road		MDE-OCP	3/1/1990 (raw)	ND	ND		
		MDE-OCP	5/8/1990 (raw)	ND	ND		
		MDE-OCP	11/6/1990 (raw)	ND	2.8		
3890 Old Federal Hill Road		MDE-OCP	8/11/1994 (pre-filter)	ND	ND		
			8/11/1994 (post-filter)	ND	ND		
3904 Old Federal Hill Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
		MDE-OCP	4/11/1990 (raw)	ND	ND		
3906 Old Federal Hill Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
		MDE-OCP	4/6/1990 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
3912 Old Federal Hill Road		MDE-OCP	9/6/1990 (raw)	ND	ND		
1428 Knopp Road		MDE-OCP	11/29/1989 (raw)	ND	ND		
1431 Knopp Road		MDE-OCP	12/6/1989 (raw)	ND	ND		
1433 Knopp Road		MDE-OCP	9/6/1990 (raw)	ND	ND		
1435 Knopp Road		MDE-OCP	12/6/1989 (raw)	ND	ND		
		MDE-OCP	9/6/1990 (raw)	ND	ND		
1439 Knopp Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
1443 Knopp Road		MDE-OCP	11/6/1990 (raw)	ND	ND		
1452 Knopp Road		MDE-OCP	12/13/1989 (raw)	ND	ND		
1458 Knopp Road		MDE-OCP	10/18/1989 (raw)	ND	ND		
1400 Kilopp Koau		MDE-OCP	12/13/1989 (raw)	ND	ND		
			, ,				
		MDE-OCP	9/6/1990 (raw)	ND	ND		